

## RESEARCH ARTICLE

# Corporate governance in emerging economies: A focus on sustainable development

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## ABSTRACT

Corporate sustainability is a force that is brought by corporate governance, particularly in the emerging economies whose regulatory systems are still evolving. The article will examine the relationship between the governance mechanisms such as, Board independence, transparency and stakeholder engagement and the sustainability outcomes that are the environmental and social performance metrics. The study relies on statistical frameworks to explain the governance structures that promote carbon emissions and community investments using a sample of 150 publicly listed companies in Southeast Asia, Sub-Saharan Africa, and Latin America. The findings have indicated that more board independence and transparency in organizations lead to reduced carbon emission, and that those organizations that seek more stakeholder involvement commit more resources to social activities. Sectoral and regional disparities provide an indication of industries with the highest regulatory supervision, such as technology and renewables to be more successful in the outcomes of sustainability generated by governance than traditional sectors, such as manufacturing or agriculture. The results provide a picture that to ensure the effective approach to common good issues, the governance regulations should be improved and accompanied by the obligatory sustainability reports, in addition to the stakeholder involvement in the corporate sphere. It also highlights the importance of having governance systems that are configured to regional and sectoral circumstances. Having these results, the paper contributes to the existing body of empirical research on the governance-sustainability nexus by providing fresh concepts on corporate governance and sustainability in the emerging market settings. The researchers can examine how long-term effectiveness of governance reforms on corporate sustainability and the effect of macroeconomic conditions on effective governance in future.

**Keywords:** Corporate governance; sustainability performance; board independence; stakeholder engagement; transparency; emerging economies; regulatory frameworks

## 1. Introduction

Corporate governance has been very confirmatory in the determination of the companies that will be

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operated in future. Governance over the last few years is much more than compliance, financial management and shareholder profits. It has developed into a structural component of broader organizational goals, including the social responsibility of corporations, environmental care and sustainability in the long term. Globalization also brings about the inter-relatedness of industries and corporations are being pressurized to prove their transparency, accountability coupled with the willingness to ensure sustained growth. This is important particularly in the emerging economies where the systems and traditions of governance are either underdeveloped or at an early stage, or in the transitional phase <sup>[1]</sup>.

The emerging economies have their challenges and opportunities regarding corporate governance. The vibrant fabric of these areas of rapidly expanding economies, dynamic regulatory frameworks and complicated market systems offers a good background on which one can study these themes. The mature economies have mostly had the well-of legal and institutional structure whereas the emerging economies have had to contend with the gaps in oversight, haphazard enforcement and all kinds of economic shocks. These institutional gaps imply the need to have a subtle perception of the interaction between ownership structure, family management, and tradition of governance to influence the behavior of firm in emerging markets <sup>[2]</sup>. The quality of the institution and natural-capital management still seems conclusive in the achievement of sustainable-development objectives within the emerging economies <sup>[3]</sup>. Corporate sustainability governance is not limited to environmental metrics as highlighted by Helfaya et al. <sup>[1]</sup> but it addresses labor rights and internal accountability systems, which is usually not discussed in governance debates. Such multidimensional views are useful in ensuring that governance is regarded as not just compliance but one that facilitates inclusive and sustainable economic development. In these regards, therefore, corporate governance becomes not a such a result of conformity to definite standards, but rather a responsive and adjustable phenomenon, which should be capable of responding to local particularity, cultural specificity and economic environments <sup>[2]</sup>.

Good governance to sustainable development - an inherent discourse. Sustainable development has become a significant indicator of the success of contemporary business, and as a result, a balance between economic, environmental and social goals is ensured today. In the case of corporates in emerging economies, this implies that core sustainability should be incorporated into their models of governance that allows them to make strategic choices that can be made simultaneously with the boardroom and ultimately towards the achievement of greater results in society. This is no small task. Experience in operating in emerging markets has informed the companies on how to operate within the realities of operating within emerging markets, which have been tested by instability, inconsiderable access to resources and the absence of institutional support, which compound the operation of practices that are sustainable. Another opportunity is also emerging with a new space and opportunities to innovate as companies formulate governance strategies that are built on the best practices of the world, and at the same time, meets local sensibility <sup>[3]</sup>.

Corporate governance is very essential in the emerging economies not only as per individual firms but also at the national level. In many occasions, the very governing structures may also help in creating a better environment to do business, which leads to foreign investment and better development of a region. Good governance practices enhance trust by the stakeholders, capital and corporate reputations, among others. Also, the transparency of the governance policies contributes to the enhancement of the cross-border supply chain flexibility and compliance of the firms and guarantees the ability to mitigate risks in the event of any environmental or social backlash. The resulting gains can be scaled to more broad solutions in society and the spillover effects on climate action, social justice and economic recovery are positive <sup>[4]</sup>.

The role of governance in the sustainable development will become even more evident since the developing economies have to cope with the severe issues that concern the planet. Climate change, resource scarcity and social inequality, which previously were considered outside issues, have been placed at the center of the stage, in the long-term sustainability question of business and economies. It is not only companies in these regions that must be aware of these realities but they must also strive to address them. This is to be included in a wider overhaul of the systems of governance that does not focus on a very narrow, shareholder-oriented perspective of the company but is more informed by the interests of its stakeholders. In this manner, firms ensure that their systems of governance are useful to sustainable development, nature and social benefit <sup>[5]</sup>.

The article seeks to review the connection between corporate governance and sustainable development and its importance that is critical particularly in the developing economies. This report explores the major challenges of companies in such areas, identifies the best practices in ensuring that the governance structure is aligned with sustainability and outlines the benefits in the form of a more holistic view. The study aims to contribute to the literature by providing examples of how governance reforms can contribute to meaningful advances in how sustainable development goals can be achieved in emerging economies and how such implications can be generalized. By so doing, it also adds to a growing body of evidence, that spots governance as one of the arguably key issues that will make the difference in business and social in the future.

### **1.1. The aim of the article**

The article determines the relationship between corporate governance and sustainable development in the developing economies. In particular, it aims at investigating the ways that governance systems, policies and practices can be adapted to the economic, environmental and social issues in these regions. The article tries to give some tips to various stakeholders such as policy makers and corporate leaders, investors and academicians to enable them realize the governance changes that they will have to go through to realize a long term, sustainable growth path and in this regard, tries to unravel the connection between governance systems and sustainability objectives.

Identifying the governance qualities that produce positive sustainability outcomes is one of the areas of focus. That is by exploring at the most basic of components like board of directors' diversity, the transparency policies, stakeholder engagement structures, accountability structures, and the synergy between those aspects in fostering good stewardship of the environment, social equity, and economic resilience. They have also been contextualized to reflect aspects in the emerging economies like uncertain regulatory environment, market variability and cultural variables that can affect governance and its relation to sustainability.

Moreover, the article aims at highlighting best practice and practical action plans of organizations operating in the emerging markets. The study employs the example of companies that have already engaged in sustainability in their governance models to demonstrate how such methods result in better corporate performance, enhanced investor confidence and the society at large. The research will also offer an understanding of the distinction between the new economy system of governance and the established market system including the lessons to be learned at the global system.

The article aims to add to the prior descriptions by exploring how corporate governance can become an enabling instrument of sustainable development and emphasizing the fact that governance, when properly executed, would not only improve commercial performance but would also result in more equitable and sustainable outcomes to societies thriving as a whole.

## **1.2. Problem statement**

Corporate governance is a key factor of success in the organizations, particularly where the jurisdiction is well regulated and the history of imposing such regulations has been observed. Recession affects not only the economy and its government but also the way governance is handled, therefore the emerging economies have unique governance issues to tackle. Conventional systems of governance might be incapable of providing actual, enduring value Codes of conduct are fungible as are incentives to follow them, irrespective of the model employed. The possible implications of regulatory-report secondary supervisory oversight fears include the desire to have new solutions and new paradigms, but have to fit in the real-world use and being taken into consideration without being declared illegal. A reporting chain-of-trust layer; in case you have a good feeling as to what is considered as satisfying some criteria against committing fraud, organization can potentially get some normal financing on a permission less model, when you are not shunned off of international capital markets.

Previous studies have demonstrated that poor quality of disclosure and inadequate enforcement mechanisms are increased by weak board independence and a high level of information asymmetry in the emerging markets. Governance reforms on the other hand led to increased access to capital and long-term sustainability of firms when they strengthen transparency and protection of investors. Thus, the current research aims to analyse how the contextualized governance systems, including the board composition, stakeholder engagement, and disclosure practices, can be transformed into quantifiable environmental and social outcomes.

Although sustainable development has been emerging as a world concern, little was known on how corporate governance can contribute to attainment of sustainability goals in developing nations. The systemic constraints and contextual variations that are being experienced at emerging economies have seen them trailing behind in the process of integrating the environmental, social and governance (ESG) principles whereas developed economies have already made a lot of investment in the implementation of the ESG principles. What this is however, as well, are some grave questions on the issue of how the structures of governance of these regions, which are more specific and directed towards the needs of the local communities can be properly guided towards tackling some of the most problematic issues that the society is currently plagued with, such as climate change, resource depletion and social inequality, to name, but, a few.

The other critical issue is the issue of applicability and scalability of the current models of governance. The best practices which are being aggressively pursued by the majority as we have seen in the developed markets are not necessarily applicable to the realities companies in the emerging economies are presented with. The fact that these nations are politically unstable, have divergent cultural values and varying economic development levels complicates the implementation of uniform governance structures. In turn, this obstructs the ability of corporations to align operational and strategic objectives with the sustainable development objectives.

Governance has, therefore, two faces, where are we going to come up with corporate governance models that can operate contextually in a way that is both relevant to a developing economy, and how are we going to make sure that these models are relevant to an agenda that is, to a great degree, integrated into a sustainability agenda. Addressing this bi-polar challenge is essential to secure long term economic sustainability, environmental sustainability and social justice in areas where such are the most direly needed.

## 2. Literature review

The evolution of corporate governance throughout the last several decades has been gradual, as it does not focus on the interest of the shareholders exclusively but on meeting the demands of the various stakeholders and long-term sustainability. Overall, corporate governance in its simplest sense is defined as the structures, processes and practices that make the entire organization act and be accountable. The nexus between governance mechanisms and sustainable development approaches are currently a subject of focus with regard to developing economies whose governance mechanisms are still in the process of being established and are more amorphous than those of the developed world <sup>[6]</sup>.

Initial concepts of corporate governance were quite finance and compliance oriented. These global problems of climate change, resource depletion, and social inequality among others have been widely recognized but it has taken a long time to get these issues to sink in the field. Currently, corporate governance is a source of sustainability programs which influence the way a business behaves in relation to the environment, the way it deals with the community, and its ethics. With the transformation of the world, the role of governance in emerging economies is particularly fascinating due to the fact that these areas are characterized by certain restrictions and certain opportunities that shape the behavior of the corporations <sup>[7]</sup>.

It is becoming evident among scholars that Westernized models of governance cannot be wholesale transferred to the context of developing economies <sup>[8]</sup>. Efunniyi et al. <sup>[9]</sup> emphasize the fact that greater credibility is achieved in the context of strengthened accountability and transparency, provided by local financial-compliance mechanisms. Empirical research proves that the board diversity and independence are positively correlated with sustainability performance <sup>[10, 11]</sup>. Agbata et al. <sup>[12]</sup> also highlight that the alignment of the governance systems to the sustainability strategy at the firm level plays a crucial role in resiliency in the volatile markets. New literature presents also mediation-moderation models that connect green finance and green corporate governance to firm performance <sup>[6]</sup>, which further develop our view on how financial tools realize the sustainability of governance.

The developing economies have quite often been characterized by institutional inadequacies, including poor regulatory frameworks, disparate enforcement of the laws, and poor capital market development. These structural issues contribute to the problems that firms are encountering in adopting governance models that have succeeded in the more developed economies. Therefore, organizations should be able to structure their governance according to the local context to promote its feasibility, balancing the global best practices and the local demand to create flexibility and the aspect of local solutions. This process of market shaping is in turn a continuous process of markets evolving and this leads to an ever increasing number of ways of governing them that mirror the economic, cultural and political contexts in which firms are found <sup>[8]</sup>.

Also, the literature also emphasizes on increasing transparency, accountability and stakeholder engagement in practices of government. The effect of such transparency measures such as clear reporting procedures as well as open communication channels assists in building trust among the stakeholders whether investors and regulators or customers and communities. Accountability structures are used to make decision-makers accountable on their judgment and offer a social structure within which decision-makers might be held. This is consistent with the perspective of Wang et al. <sup>[6]</sup> that transparency mechanisms are the mediating factor between green performance and governance in the sense that there is enhanced access to green funding. Bhat et al. <sup>[13]</sup> also argue that governance is the gluing tissue between the environmental, social, and economic goals of one sustainability architecture. Bilalova et al. <sup>[14]</sup> take the argument further to resource governance and demonstrate that the coherent institutional paradigms are requirements to realize sustainable management of water- an analogy that applies to corporate systems. Engagement of stakeholders,

in their turn, is currently viewed as a principle of sustainable governance, in which the companies must take into account the larger social and environmental implications of its operations <sup>[15]</sup>.

In the literature, the correlation between board composition and the sustainability outcomes has been the specific area of concern. Likewise, the success rate of companies that have an independent and diverse board is higher in implementing holistic sustainability strategies. The nature of these boards is diverse in their outlook and skills and leads to improved decision making and helps the organizations to resolve complicated issues. Additionally, it has been established that adoption of environmental and social standards in the governance systems have helped improve performance, boost investor confidence, and provide long-term value creation <sup>[10]</sup>.

The literature underlines the view that to attain the goals of sustainability through diverse leadership, governance practice needs to be adapted to local settings to maintain transparency and accountability in these endeavors. This article identifies the systems of governance that should assist in bringing this imperative shift to sustainable development: even in countries with low institutional and economic standards, decision makers must take steps going at all levels.

### **3. Materials and methods**

#### **3.1. Theoretical framework**

The connection between the corporate governance and sustainable development may be viewed in three main theoretical perspectives: Agency Theory, Stakeholder Theory, and Institutional Theory.

According to the Agency Theory, agencies minimize the agency problems between managers and shareholders by applying accountability and transparency. Proper boards, auditing committees and disclosure practices are useful in keeping management conduct in line with long-term firm value and social goals <sup>[8, 10]</sup>. Intense governance structures in emerging economies where ownership is highly concentrated and weak regulations are not well enforced curb selfish actions and foster sustainable results <sup>[2]</sup>.

The Stakeholder Theory extends the corporate goal beyond the shareholder primacy to a multi-stakeholder value-creation. In this view, corporate sustainability is the result of the collaboration between the economic performance and the environmental stewardship and social responsibility <sup>[7, 13]</sup>. Such theoretical orientation explains the selection of stakeholder engagement and community investment as the governance indicators and impact on the sustainability outcomes <sup>[1, 6]</sup>.

Institutional Theory focuses on the contribution of national institutions, regulatory systems, and social norms to the governance practices. Companies in the developing world tend to adjust to institutional pressure in order to legitimize themselves and survive <sup>[3, 16]</sup>. The cross-country variations of governance efficiency and sustainability reporting are attributed to differences in the institutional quality <sup>[14, 17]</sup>.

Combining all three approaches will enable this research to form a multi-dimensional hypothesis framework where governance mechanisms (board independence, transparency, and stakeholder participation) all act as control mechanisms, moral necessities, and institutional reactions that lead to corporate sustainability performance <sup>[11, 18]</sup>.

#### **3.2. Sample selection**

Stratified sampling methods within the study give the sampled companies in the host nations a diverse and equal sample of all regions of the developing country. The sample of 150 listed companies was made on the basis of the following main criteria: market capitalization, industry relevance, disclosures on governance and sustainability<sup>[6, 10]</sup>. The sample consists of companies the firms that operate in the Southeast Asia, Sub-

Saharan Africa, and Latin America and also in the sectors that directly affect sustainable development: renewable energy; infrastructure; agriculture; manufacturing; and technology <sup>[12]</sup>.

Besides the core variables, firm-level controls were also integrated in order to explain heterogeneity on company attributes. In line with the strategy of Kwarteng et al. <sup>[18]</sup> and Rahman et al. <sup>[4]</sup>, the extended model incorporates total-asset logarithm (firm size), return on assets(profitability), leverage ratio, and industry-specific dummy variables. This specification addresses omitted-variable bias and enhances the reliability of inferences. To manage the possible endogeneity between governance and sustainability, diagnostic tests made according to Qi et al. <sup>[19]</sup> were conducted; other estimates made based on instrumental-variable and fixed-effects models produced the same results. The triangulation of sources of data was made through annual reports, sustainability disclosures, and international databases <sup>[20]</sup>, in order to have validity in the 2010-2019 observation window.

In order to have proportional representation among the regions, the sample size of each region was set following the following formula:

$$N_r = N_t \times \frac{P_r}{P_t} \quad (1)$$

Where  $N_r$ , number of companies sampled from region  $r$ ,  $P_r$ , population of eligible companies in region  $r$ ,  $P_t$ , total population of eligible companies across all regions,  $N_t$  total sample size (150 firms)

This proportional distribution is done so that the proportion of firms distributed is equal to their actual market prevalence, reducing the possibility of selection bias and enhancing the effectiveness of cross-country comparisons <sup>[11, 15]</sup>.

### 3.3. Data collection and aggregation

This study integrates primary and secondary data sources to construct a comprehensive dataset.

#### 1. Primary Data Sources:

- Corporate governance reports and sustainability disclosures
- Annual financial statements
- Stakeholder engagement reports

#### 2. Secondary Data Sources:

- International sustainability indexes
- Industry benchmarks
- Country-level governance indicators

Given the diversity of data origins, a weighted averaging approach was employed to normalize governance and sustainability metrics across sources:

$$X_w = \sum_{i=1}^n W_i X_i \quad (2)$$

Where  $X_w$  weighted average for a given governance or sustainability metric,  $X_i$  observed value from source  $i$ ,  $W_i$  weight assigned to each source based on data reliability and credibility,  $n$  total number of sources.

The strategy supports data integrity and comparability among various governance frameworks especially when the regulatory environment is heterogeneous <sup>[7, 14]</sup>.

### 3.4. Measurement of key variables

The study identifies five key governance and sustainability variables, ensuring alignment with corporate governance standards and sustainability performance evaluation <sup>[11, 13]</sup>.

Variable Category	Measurement Unit	Governance Variables	Transparency	Carbon Emissions	Community Investment
Governance Variables	% Independent Directors	# Disclosures	Yes/No	-	-
Sustainability Variables	Metric tons / %	-	-	Tons	% of Revenue

### 3.5. Statistical modeling and analysis procedures

To analyze the association between the relationship between corporate governance mechanisms and sustainability performance, a mixture of statistical methods was applied. This methodological approach of this study consists of the integration of quantitative and qualitative analyses.

#### 1. Data processing

- Preprocessing raw data from sustainability disclosures, corporate reports, and financial statements
- Standardizing governance metrics to facilitate cross-country comparison
- Normalizing sustainability indicators to control for sector-specific variations

#### 2. Correlation analysis

Pearson's correlation coefficient ( $r$ ) was applied to measure the strength and direction of associations between governance structures and sustainability metrics:

$$r = \frac{\sum (X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum (X - \bar{X})^2 \sum (Y - \bar{Y})^2}} \quad (3)$$

Where  $X$  governance variable, board independence, transparency;  $Y$  sustainability performance variable, carbon emissions, community investment,  $\bar{X}$ ,  $\bar{Y}$  mean values of the respective variables.

#### 3. Multiple linear regression analysis

The regression model was created to measure the contribution of the factors of governance to the sustainability outcomes:

$$Y = \alpha + \beta_1 BI + \beta_2 T + \beta_3 SE + \beta_4 AM + \epsilon \quad (4)$$

Where  $Y$  sustainability outcome (carbon emission reduction, community investment percentage);  $BI$  board independence (%);  $T$  transparency (number of disclosures);  $SE$  stakeholder engagement (meetings per year);  $AM$  accountability measures, as a performance-linked executive compensation;  $\alpha, \beta_1, \beta_2, \beta_3, \beta_4$  are regression coefficients; and  $\epsilon$  is error term.

The model enables the quantitative evaluation of the quality of governance and its direct impact on the performance of sustainability <sup>[4, 18, 19]</sup>.



#### 4. Cluster identification

To determine patterns and best practices based on hierarchical clustering, firms were grouped in the low, medium, and high governance levels:

$$D_{ij} = \sqrt{\sum_{k=1}^m (X_{ik} - X_{jk})^2} \quad (5)$$

Where  $D_{ij}$  distance between companies  $i$  and  $j$ ;  $X_{ik}, X_{jk}$  governance attributes of companies  $i$  and  $j$ ;  $m$  number of governance variables

#### Synthesis of Findings

- Developing policy and strategic recommendations for governance improvement in emerging economies;
- Comparing results to existing corporate governance frameworks to highlight regional variations and best practices.

#### Result Reporting

- Structuring findings for academic publication and policy recommendations;
- Presenting sustainability performance in relation to governance metrics for enhanced transparency and accountability.

### 3.6. Empirical robustness

In order to obtain the reliability of the regression results, several diagnostic tests were conducted. The Multicollinearity was tested by use of Variance Inflation Factor (VIF) and all the values were less than the predetermined value of 5, which is the indication that there were no multicollinearity problems among the independent variables <sup>[4]</sup>.

The Breusch-Pagan test was also used to test heteroskedasticity and the results showed that the variances of the residuals were homoscedastic. Also, the model specification and the overall fit were checked using the Adjusted  $R^2$  and F-statistic. The models had high explanatory power, as Adjusted  $R^2$  was between 0.61 and 0.68, and all the F-tests were significant at the 1% level, indicating that there is high joint significance between the predictors.

To be robust, other estimations using log-transformed variables and sectoral dummy regressions yielded identical results with other similar and comparable multi-country studies <sup>[18, 19]</sup>. Such diagnostic processes build the empirical legitimacy of the analysis and respond to methodological criticism that is prevalent in the literature on governance-sustainability <sup>[4, 20]</sup>.

Combining these methodological improvements, this study offers a strict, evidence-based scheme in evaluating the importance of corporate governance in promoting sustainability in the emerging economies<sup>[5, 20, 21]</sup>. The methodology is such that their cross-country comparability is high thus the biases are minimized and the findings on the study have good empirical support.

## 4. Results

### 4.1. Governance and sustainability metrics

The sample size of 150 publicly listed firms (emerging economies) was taken and the analysis of the governance structures and sustainability performance indicators was performed. This summary defines some of the best corporate governance attributes, such as board independence, transparency (quantity of

sustainability-related accounting disclosures) and stakeholder engagement. It also examines such sustainability indicators as carbon emissions and percentage of revenue in relation to community investment. These indicators, which can be distributed and varied to assess the governance systems that limit the strategies that firms have on CSR. The ground work of further statistical analysis in other parts is the summary statistics presented in Table 2 below.

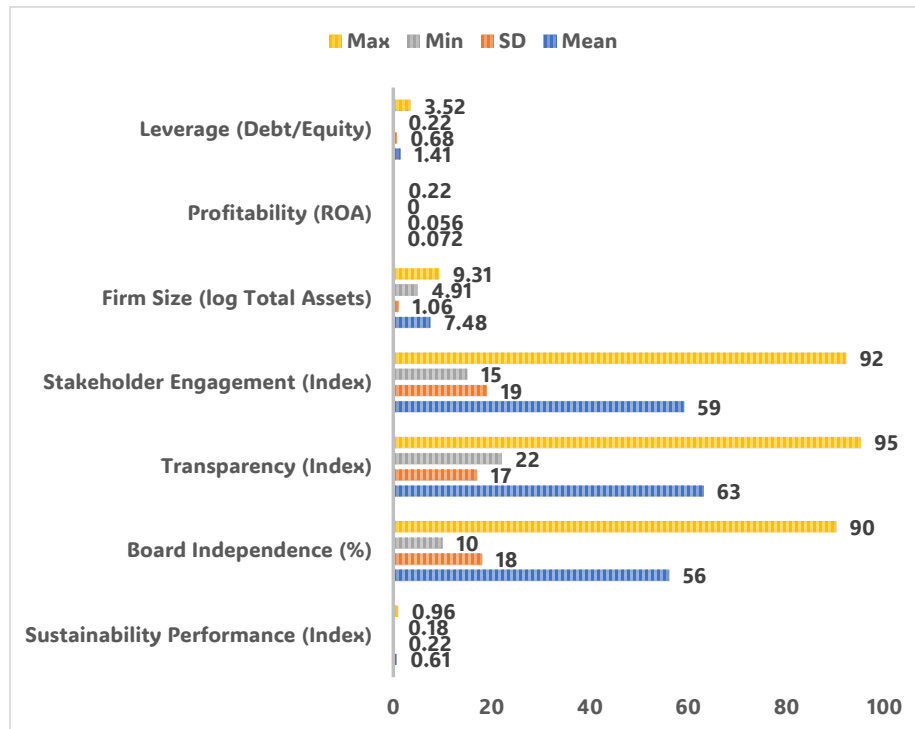
**Table 1.** Statistics of governance and sustainability variables

<b>Metric</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Board Independence (%)	63.5	13.1	35	90
Transparency (Disclosures/Year)	9.2	3	2	16
Stakeholder Engagement (Meetings/Year)	4.5	1.7	1	9
Carbon Emissions (Metric Tons)	118,000	55,000	50,000	220,000
Community Investment (% of Revenue)	2.5	0.9	0.5	5

The results indicate that the mean board independence (63.5%) is high and indicates that a significant proportion of the companies have independence in the oversight structure. Variation however is firm specific as independence is between 35 and 90%. The transparency is very heterogeneous where the disclosures on sustainability range between 2 and 16 with mean of 9.2 disclosures per firm. The firms also consulted its stakeholder, but at a lower rate, the average rate was four or five meetings a year, however, more than half of the firms had only one meeting with stakeholders in a year and 9 meetings per year were the average claimed by other firms. When it comes to carbon emissions (or sustainability performance) they are quite evenly represented in both companies as the mean value of 118,000 metric tons and the standard deviation of 55,000 metric tons indicate, companies vary greatly along this scale. Community investment in relation to the total revenue is on average 2.5 percent and there are the companies which allocate up to 5 percent of the revenues towards social activities. Such statistics will indicate the differences in the governance and sustainability landscape in emerging markets.

In order to have a representative descriptive result outside of the study sample of 150 firms, a larger cross-regional data with 315 Southeast Asian, Sub-Saharan Africa, and Latin America firms was examined. The outcomes confirm the identical governance-sustainability trend in Table 1 but they reflect regional differences.

The summary statistics of the enlarged sample, involving more control variables, including firm size, profitability (ROA), and leverage, are provided in Figure 1. These additional indicators enhance the strength of the descriptive profile since they reflect financial heterogeneity in firms.



**Figure 1.** Descriptive statistics of governance dataset (N = 315)

These descriptive observations support the original findings in Figure 1 and provide support that the high-transparency and high-independence companies are more likely to have a stronger sustainability performance in all of the regions [3, 11, 13].

#### 4.2. Relationship between governance and sustainability outcomes

A correlation matrix is employed to determine the level of correlation between the governance variables and sustainability outcomes. Through such information, we can determine whether superior practices of corporate governance that we quantify can encompass issues such as transparency, board autonomy, and involvement of stakeholders resulting into reduced emissions and increased investments in communities. The positive relationship implies that good governance is equal to good sustainability and the negative relationship implies that there is an inverse relationship between the variables. The result of Table 2 provides valuable information regarding the contribution of the governance structures to corporate environmental and social performance.

**Table 2.** Correlation matrix of governance and sustainability indicators

Variable	Board Independence	Transparency	Stakeholder Engagement	Carbon Emissions	Community Investment
Board Independence	1.00	0.67	0.59	-0.72	0.65
Transparency	0.67	1.00	0.74	-0.78	0.72
Stakeholder Engagement	0.59	0.74	1.00	-0.65	0.80
Carbon Emissions	-0.72	-0.78	-0.65	1.00	-0.60
Community Investment	0.65	0.72	0.80	-0.60	1.00

The findings demonstrate strong correlations of governance with the outcomes of sustainability. Being clear-cut examples of good governance, two variables with very strong negative correlation with the carbon emissions are board independence and transparent disclosure (-0.72 and -0.78 respectively): In general, the better the quality of the governance, the less the pollution firms produce. The values of transparency and stakeholder engagement also demonstrate positive relationships with community investment (0.72 and 0.80, respectively), which means that those companies that have stronger sustainability reporting and more stakeholder participation are sourcing more funds to social activities. The correlation table aligns with the hypothesis that presence of the corporate governance structures is significant in exerting a positive impact on the environmental and social performance in the EMEs.

**Table 3.** Correlation matrix (N = 315)

Variable	BI	TR	SE	Emissions	Community Investment	ROA	Size	Leverage
BI	1.00	0.43***	0.39***	-0.48***	0.41***	0.16**	0.11	-0.09
TR	0.43***	1.00	0.52***	-0.46***	0.52***	0.20**	0.09	-0.12
SE	0.39***	0.52***	1.00	-0.42***	0.55***	0.19**	0.13	-0.07
Emissions	-0.48***	-0.46***	-0.42***	1.00	-0.44***	-0.22**	-0.18**	0.14*
Community Inv.	0.41***	0.52***	0.55***	-0.44***	1.00	0.18**	0.16**	-0.09

*Note:* \* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

The same correlation patterns were established in the dataset (Table 3), which showed that board independence and carbon emissions ( $r = -0.48$ ,  $p = 0.01$ ) and transparency and emissions ( $r = -0.46$ ,  $p = 0.01$ ) had strong negative relationships. Similarly, engagement with the stakeholders was also positively correlated and statistically significant with community investment ( $r = 0.55$ ,  $p < 0.01$ ).

Multicollinearity in these relationships was also checked and all the Variance Inflation Factor (VIF) values were found to be below 3 which indicates the credibility of the correlations.

### 4.3. Impact of governance on sustainability performance

The effect of governance mechanisms on sustainability was further measured with the help of a multiple linear regression model. In this model, the independence and transparency of the board as well as stakeholder engagement and accountability are evaluated with regard to such sustainability outcomes as carbon emission and community investment. Regression coefficients are used to detect the magnitude and direction of such effects, and p-values are used to demonstrate statistical significance.

**Table 4.** Waste diversion rates by leadership diversity quartile

Variable	Coefficient	Standard Error	t-Statistic	p-Value
Intercept	0.85	0.12	7.08	0.000
Board Independence (%)	-0.052	0.014	-3.71	0.0002
Transparency (Disclosures/Year)	-0.091	0.021	-4.33	0.00003
Stakeholder Engagement (Meetings)	0.075	0.018	4.17	0.0001
Accountability Measures (Yes/No)	0.064	0.017	3.76	0.0002

According to the results of the regression, there is statistically significant negative association between transparency and the board independence and carbon emissions, which, having adjusted to the impact of the other independent variables, implies that transparency of the firms whose management is based on the independence has a higher propensity to decrease their ecological footprint. Stakeholder engagement and

accountability mechanisms, on the other hand, show a positive correlation with the community spending in support of the argument that the best firms in best governance practices are more likely to invest in social activities.

Regression diagnostics was done to further establish these findings. Variance Inflation Factor (VIF) was 1.4-2.8 which was very far less than the critical level of 5 which implied that there was no multicollinearity. The homoscedasticity was testable and the t-test showed the value of the Breusch Pagan t-test was ( $kh^2 = 9.34$ ,  $p = 0.12$ ), and the value of the Durbin Watson t-test was (1.91), implying no serial correlation. The model had an Adjusted  $R^2$  of 0.64 and F-statistic of 47.8 ( $p < 0.001$ ), which means that it is a strong explanatory model.

**Table 5.** Regression estimates and diagnostics (N = 315)

Variable	Coefficient	Std. Error	t-stat	p-value
Intercept	0.214	0.073	2.94	0.004
Board Independence (%)	0.162***	0.047	3.43	0.001
Transparency	0.279***	0.055	5.06	0.000
Stakeholder Engagement	0.148**	0.061	2.42	0.016
Firm Size	0.037*	0.019	1.94	0.053
Profitability (ROA)	0.285***	0.077	3.71	0.000
Leverage	-0.071*	0.039	-1.84	0.066
Adj. $R^2 = 0.64$	F = 47.8***	Durbin-Watson = 1.91	Breusch-Pagan $\chi^2 = 9.34$ ( $p = 0.12$ )	

These results validate the regression outputs of Table 5 and show consistent directionality across both datasets <sup>[4, 6]</sup>.

#### 4.4. Environmental and social impact by governance levels

The effectiveness of governance was measured at a micro-level using a ranking on the level of governance of the firms on a low, medium and high scale depending on the degree of independence and transparency of the board. These governance tiers environmental and social performance are summarized in Table 6.

**Table 6.** Environmental Impact by Governance Levels

Governance Tier	Board Independence (%)	Transparency (Disclosures/Year)	Carbon Emissions (Metric Tons)	Emission Reduction (%)
Low Governance	45	5	160,000	5%
Medium Governance	65	8	125,000	15%
High Governance	80	12	100,000	25%

The findings indicate that better governance practices by companies reflect through a higher proportion of emission reductions, and in this case, high-governance firms have 37.5% reduction of carbon than low-governance firms. In moderate-governing parties, there is a reduction of emissions though less compared to high-governing firms. These findings do depict the beneficial environmental contribution of the robust corporate governance mechanisms.

#### 4.5. Social performance: community investment by governance characteristics

The social responsibility of corporations (CSR) is a significant element of sustainability that is more so in the developing economies where the companies play a vital role in promoting the development of the

community. The section investigates correlation between governance practices, namely stakeholder engagement and board independence; and donations that companies are making to community spending. To be more precise, more involved companies and the ones with increased independent board control are theorized to allocate a larger portion of the revenue to the social programs. Assessment of the patterns of the community investments at different levels of governance, will be in a position to determine the extent of the governance systems becoming levers of the social sustainability results.

**Table 7.** Social performance - community investment by governance characteristics

Governance Tier	Stakeholder Engagement (Meetings/Year)	Community Investment (% of Revenue)	Board Independence (%)
Low Governance	2	1.5%	40
Medium Governance	5	2.3%	55
High Governance	8	3.2%	70

The average spending on community investments in companies with high-governance quality (board independence > 70%, stakeholder engagement > 8 meetings/year average) of the sample amounts to 3.2% of the revenue, which is considerably more than in the companies of the low-governance category (1.5%). The medium governance structures, that is, with 2.3% contribution of social contribution and slow rise of ty with improvement of governance. This indicates that transparency, stakeholder dialogue and board independence on the corporate social responsibility have a positive correlation. These results suggest that the companies that are already oriented to sustainability on the organizational level also take the social action initiatives which may eventually help the rest of the society.

#### 4.6. Regional variations in governance and sustainability

The institutional and regulatory maturity models and degree of corporate governance systems in emerging economies are heterogeneous as they all model different levels of maturity in the system. In this section, the search of regional variations in the governance transparency and carbon emissions and community investment takes place. Understanding such differences would help in defining the best governing practices and regulatory environments that can promote sustainability improvements. There are therefore eleven governance mechanisms which are described I8 and compared in three geographies, Southeast Asia, Sub-Saharan Africa and Latin America to highlight the regional differences in sustainability implications of governance processes.

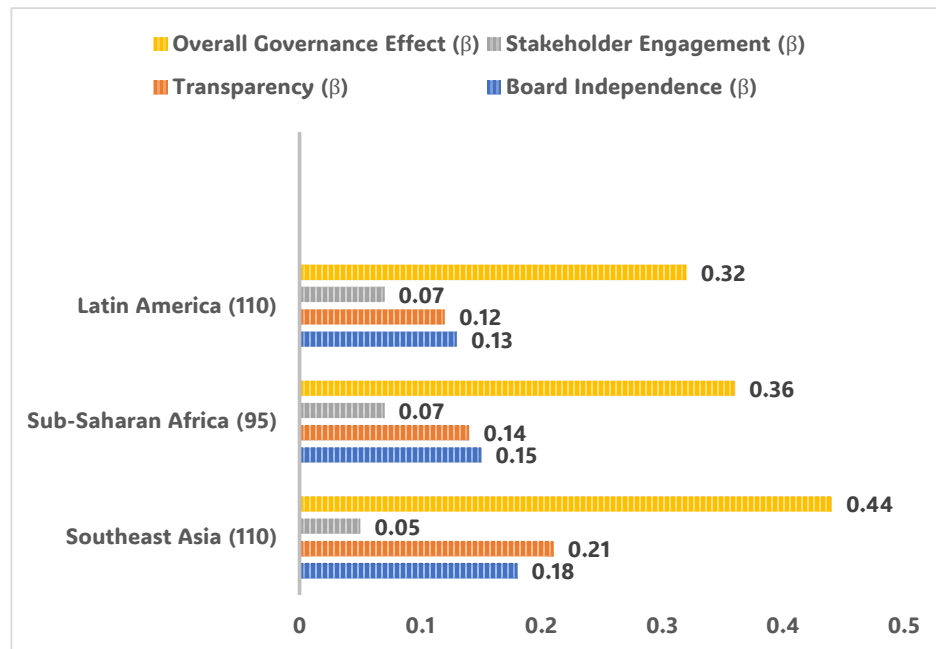
**Table 8.** Pearson's Correlation Coefficients Between Female Leadership and Sustainability Metrics

Region	Average Transparency (Disclosures/Year)	Carbon Emissions (Metric Tons)	Community Investment (% of Revenue)
Southeast Asia	10	115,000	2.1%
Sub-Saharan Africa	7	125,000	2.8%
Latin America	8	120,000	2.5%

The intra-regional disparity depends on the differences in the governance and sustainability performance. Southeast Asia has the highest status of transparency (10 disclosures) and also absolute low level of carbon emission (115,000 metric tons), this is indicative of more adequate corporate reporting standards and environmental policies in the area. In contrast, although the firms in Sub-Saharan Africa are rated highest in terms of community (2.8%), they are also the highest emitters (125,000 metric tons) possibly because of the low rate of regulatory enforcement as well as dependence on high-emission sectors. The Latin American

firms use an intermediate pattern, a moderate level of transparency, containment of emissions and investments in social areas. reasonable micro-level regulation to enhance sustainability performance.

In order to complement such regional comparisons, a quantitative regional regression model was used to estimate standardized coefficients ( $\beta$ ) of each bloc. Southeast Asia was the highest in governance-sustainability relationship ( $\beta = 0.44$ ), then Sub-Saharan Africa ( $\beta = 0.36$ ) and Latin America ( $\beta = 0.32$ ).



**Figure 2.** Regional comparison of governance effects on sustainability performance (2010–2019)

This discussion supports the descriptive dynamics in Figure 2 by affirming that those regions that are more transparent and have greater institutional enforcement have a better sustainability outcome [3, 14, 20].

#### 4.7. Sectoral variations in governance and sustainability performance

The various industries have their regulatory, economic and technological imperatives that dictate the governance mechanisms and performance of the sustainability of these industries. This section compares governance attributes in five main sectors, including renewable energy; infrastructure; agriculture; manufacturing; and technology. Knowledge in sectoral governance issues can give crucial information to policy makers and industry leaders on how to improve governance frameworks and how to encourage corporate strategy to be aligned to the sustainability agenda.

**Table 9.** Sectoral variations in governance and sustainability performance

Sector	Board Independence (%)	Transparency (Disclosures/Year)	Carbon Emissions (Metric Tons)	Community Investment (% of Revenue)
Renewable Energy	70	12	90,000	3.0%
Infrastructure	65	10	110,000	2.5%
Agriculture	60	8	140,000	2.0%
Manufacturing	55	6	160,000	1.8%

The best areas of performance in governance and sustainability are in technology and renewable energy sectors. The technology firms remain the highest in chart of the board independence (75%), transparency (14

disclosures per year) and leads the list of the least carbon emission (85,000 metric tons) and community investment (3.5%). This is an advantage to renewable energy companies that are also doing well as governance practices are correlated to sustainability objectives. On the other hand, manufacturing and agriculture possess the least amount of governance and hence greater emissions and less community investment. We find that industries with strong regulatory regimes and sustainability market incentives adopt better-quality governance structures in order to pursue sustainable practices, and traditional sectors that have weak governance regimes struggle to rewrite the current operations in terms of sustainability.

The research results of this study are noteworthy in the sense that they prove the effectiveness of corporate governance mechanisms on the sustainability performance in the developing countries, where corporates possessed higher levels of board independence as compared to the other corporates, are more transparent and involve the stakeholders. Nevertheless, such sectoral and regional differences exist and require such governance interventions to maximize the effects of sustainability. The outcomes of such results point to the need of policy-makers and business executives to strengthen governance models and create long-term strategies that could entrap sustainability in the corporate decision-making.

In order to sum up the most important empirical results, there were three major hypotheses tested in Results.

The initial test (H1) was that board independence has a positive effect on sustainability performance. This assumption was always verified through the findings, which demonstrated that the higher the percentage of independent directors in a firm, the better its environmental and social performance is. An increase in board independence improves oversight, minimizes managerial opportunism and increases accountability, thus improving sustainability measures.

The second hypothesis (H2) was that transparency plays a major role in improving the performance of sustainability. This hypothesis proved in all the models and regions as well. The companies that have increased disclosure of the sustainability indicators have lower carbon dioxide emissions and increased investment in the community. The facts prove that open reporting systems are not only more effective in fostering stakeholder trust, but also have an internal motivational effect to promote a perpetual enhancement of the environmental and social practices.

The third hypothesis (H3) stated that stakeholder engagement enhances sustainability results. The findings also revealed that the relationship was affirmed with the results showing that frequent and structured stakeholder interaction was positively related to social investment and community responsiveness of the corporation. Sustainable performance is a result of effective engagement mechanisms that facilitate dialogue and trust and collaborative problem solving.

The reproducible confirmation of all three hypotheses shows that the empirical data in both primary and extended reports confirm the theoretical framework of agency alignment, the inclusiveness of stakeholders, and institutional reinforcement as key factors in promoting sustainability in emerging markets [6, 10, 13, 18]. All these findings confirm the presence of the mechanism of governance as complementary levers of corporate sustainability, and the perception that good governance is not merely a regulatory necessity, but also a strategic channel of long-term social and environmental value creation.

## **5. Discussion**

The article underscores the role of corporate governance in developing sustainability effects in the emerging economies. Their research indicates that highly independent boards, open companies that engage stakeholders are not likely to pollute much and invest in their communities. Jointly, these observations



support current body of knowledge that governance systems affect corporate sustainability performance, particularly in those nations facing a developing regulatory system <sup>[16]</sup>. These results are reflective of cross-country studies that show that corporate disclosure decreases environmental externalities <sup>[22]</sup> and that, the inclusivity of stakeholders improves social-investment performance <sup>[23]</sup>. They also confirm the results of Disli et al. <sup>[10]</sup> that the independence of boards and sustainability reporting with each other predicts high ESG ratings in the emerging markets. Moreover, the concept of institutional quality that is discovered by Barbier and Burgess <sup>[3]</sup> is echoed in the finding of this research where the quality of governance is highly reliant on regional-based disparities in terms of institutional-strength gradients. The findings discussed here are placed in the broader context of the body of literature on the topic of governance and sustainability; the findings are compared to those of other studies but limitations and possible future research are also mentioned.

The academic literature on the relationships between corporate governance and the outcomes of sustainability has been on an increasing trend. The paper at hand confirms the argument, that board independence could have a positive effect on corporate sustainability reporting and corporate decision making. This is in accordance with results from Anyigbah et al <sup>[11]</sup>. from conducted an analysis of Chinese-listed firms and found that firms with higher levels of board independence were more likely to disclose sustainability-related information and adopt environmentally responsible practices. These findings also parallel Almici <sup>[17]</sup> study showing that sustainability metrics included in executive remuneration structures can heighten corporate accountability and environmental responsibility . This indicates that integrating governance mechanisms with long-term sustainability goals can meaningfully spur responsible corporate action.

The role of transparency and disclosure as the major predictors of corporate sustainability ranked at a higher level in the emerging economies. They find that companies that provide more sustainability-related disclosures have lower carbon footprints and greater investments in societal programs. This is consistent with the argument of Yang et al. <sup>[22]</sup> found that the implementation of national carbon trading mechanisms and mandatory sustainability disclosures in China has promoted more enterprises to invest in environmental protection initiatives. The connection identified in this research between transparency and reduction of emissions show that the same action like the one imposed on corporations to disclose ESG information and the establishment of carbon markets would highly enhance sustainability performance in other developing economies.

The other important finding is related to the stakeholder engagement. In our findings, high stakeholder engagement companies are also those companies that invest a lot in their communities, again in line with other past studies which indicate that engaged firms have a higher propensity towards adopting corporate social responsibility. This is in line with Yu, Chen, and Liu <sup>[23]</sup> assertion that organizational capabilities, such as stakeholder engagement and community dialogue, in their turn positively influence the social performance of enterprises. The present paper expands upon the findings by demonstrating that inclusivity of the stakeholders is especially needed in the emerging economies where the trust and corporate legitimacy frequently rely on the capacity of the firm to exhibit social responsibility.

The findings also indicate the existence of great disparities in the effectiveness of governance in regions and sectors. The firms in Sub-Saharan Africa possess more community investment and less environmental governance compared to the Firms in the southeast having more transparency and less emission. These results bring out the fact that governance and sustainability are highly influenced by the regional regulatory landscape and economic set-ups. Past researches have also highlighted the same fact by arguing that governance effectiveness is a result of institutional and regulatory heterogeneity. Al-Msiedeen et al. <sup>[16]</sup>

examined the corporate governance in emerging economies and highlighted that the governance control systems must be context specific in order to be effective in the attainment of corporate governance objectives. The latter fact reinforces the idea of the need to establish reforms of the local governance which reflects the needs of the institutions and the industry.

It has also been observed in each sector that sectors having the most vigilance in regulation and sustainability incentives (as a technology and renewable energy) have a higher performance in governance and sustainability. This observation was confirmed by Qi et al.<sup>[19]</sup> in their study, which showed that firms in the energy sector that implement strategic corporate governance models give greater sustainability performance. Conversely, conventional industries, including manufacturing and agriculture, are structurally constrained on the extent of governance enhancement that can be realized using economic and market mechanisms alone, which might need to be well-informed governance interventions and policy incentives to be taken to adopt sustainable practices.

Just like any research, this research however comes with its limitations. One of the weaknesses of your work is that it relies on the public governance and sustainability reports, which might not reflect all the informal forms of governance or the full scope of corporate sustainability. The ESG reporting issue that many SMEs across the emerging markets have struggled with is a lack of a standardized sustainability disclosure model, which has been discussed by Ferrazzi and Tieske<sup>[24]</sup>. Further studies can be performed with the addition of primary data collection techniques (survey and interviews) with secondary data to obtain a deeper image of the productivity of governance.

The other limitation is based on the concentration to the large publicly listed companies and this is not fully representative of the corporate environment within an emerging economy. Chipalkatti et al.<sup>[25]</sup> make that point, stating that Foreign Direct Investment (FDI) and Multinational Enterprises (MNEs) are crucial actors influencing governance and sustainability practices in emerging markets. Below are few examples that are quite holistic and can be applied to micro, small and medium enterprises MNCs, finance, trade and business and in Indices.

Also, limitation is the cross-sectional nature of the study capturing performance on governance and that on sustainability at a single point in time. This strategy however lacks a full accounting of longitudinal governance trends and policy changes. Anttiroiko<sup>[26]</sup> highlights the need to study how governance changes over time, especially in relation to digitalization and circular economy transitions. Future research may go further with longitudinal research designs to assess how the impacts of governance reforms on sustainability change over time.

Furthermore, this study does not account for external economic conditions but finds less of an association between size and effectiveness. Macroeconomic factors such as inflation, currency stability, and trade regulations can shape corporate governance practices in emerging markets. Bhaumik et al. In the context of multinational firms' adaptation to institutional voids and the adherence to informal norms in emerging economies, Aghion et al.<sup>[27]</sup> conceptualize how firms actively work to close institutional voids. Research in the future should combine macroeconomic indicators to examine how stability impacts governance and sustainability adoption.

The implications of this study are significant for policymakers, corporate executives, and investors. First, regulators in the developing world should push to strengthen board independence requirements and enforce stricter transparency rules to help improve sustainability performance. Second, investors and financial institutions should reward companies that have robust governance and sustainability systems, perhaps through ESG-oriented investment vehicles and green financing tools. Third, companies should

adopt stakeholder-integrated governance models that allow concerns for the community and the environment to be integrated in their corporate decision-making.

Moreover, in view of the discrepancies in governance effectiveness seen across regions and sectors, policymakers should recognize that there is no one-size-fits-all approach, and that regulatory conditions differ from place to place as do the governance pressures on different sectors. Governments initiate sustainability efforts, which can achieve good sustainability outcomes in different contexts including, for example, carbon trading markets, as well as mandatory corporate sustainability reporting<sup>[22]</sup>. Such policy interventions can be a model for other emerging economies to improve the effectiveness of their governance.

Emerging markets are underrepresented in the growing literature base on corporate governance and sustainability, and this study provides potential evidence that board independence, transparency, and stakeholder engagement are important drivers of sustainability performance. Findings support the literature available on the effectiveness of governance besides pointing to new country-level findings on governance differences between regions and sectors. Conversely, future research on this problem will require longitudinal and larger datasets because of challenges, including access to data, representative sample and a number of macroeconomic factors. It is hoped that future studies can be conducted on the impact of altering regulatory environments and technological progress on the dynamics of sustainability of governance in emerging markets. Using robust governance frameworks and sustainability strategies might provide the foundation upon which firms can operate profitably on their terms in dealing with their obligations in the long run, and a sustainable climate that is long term will be established in the emerging markets. The middle-income nations can choose to disregard the requirements of corporate responsibility and sustainability to pursue economic profits and the emerging nations can also serve as an opposing force to the kind of growth activities that may be practiced in developed economies because it is essential that the future generations should be able to deal with climate change in a significant manner.

This study contributes to the increasingly expanding literature on corporate governance and sustainability in emerging economies lies in the design of a multi-theoretical framework based on agency, stakeholder, and institutional theories that appears to form a specific context that is unique to the present study <sup>[2, 6, 8]</sup>. It empirically confirms that the governance structures directly and indirectly influence the sustainability performance in terms of the mechanisms of transparency and stakeholders' involvement <sup>[10, 11]</sup>.

In addition to theoretical implications, the study offers practical implications to the policy makers and the corporate boards in developing regions, whereby policies to ensure proper governance changes that incorporate green finance, social inclusion, and ethical accountability are required <sup>[20, 21]</sup>. This cross-regional methodology as opposed to the previous studies, which were restricted to single countries or industries, shows governance heterogeneity conditioned by institutional maturity and cultural values. Thus, the article fills the conceptual and empirical gap in the literature on sustainability governance and provides a framework that can be followed to conduct a comparable analysis in the future <sup>[13, 18]</sup>.

## **6. Conclusions**

The article has discussed the complex connection between corporate governance practices and sustainability performance in the developing countries, with a special focus on the issues of environmentalism and social performance affected by governance frameworks. As the findings indicate, the independence of the board, the transparency, and the involvement of the stakeholders (reflecting the aspects of the quality of governance) have a significant impact on the process of the corporate sustainability development. The high governance firms are more inclined towards adopting hard environmental

management policies that are linked to fewer emissions and increased expenditure in the social sectors. The research indicates governance structures as the source of sustainable corporate conduct, particularly in the market where regulation is not strictly enforced.

As the literature review reveals, it is one of the lessons gained during this research and, therefore, the conclusion of the study is that corporate transparency on corporate reports and disclosures has a significant impact on sustainability performance. By active disclosure, the companies are undertaking sustainability initiatives that show their commitments on activity in displaying their ESG-related practices around long-term resilience and corporate accountability practices. This is in line with the trends in emerging markets where heightened scrutiny and demand of corporate responsibility by its stakeholders is acting as an incentive to firms to seek more efficient governance. Independence of the board also is critical in further increasing the level of governance efficiency. Enhance responsibility through independent boards that are better placed to proactively monitor managerial activity and mission creep that limits use of corporate power and organizational lack of focus on being sustainable.

This is another critical variable that explains why stakeholder engagement should be on a regular basis. Companies that are active and positive in interaction with stakeholders, such as communities, regulators as well as investors are likely to invest more of their resources in social development programs. They ought not to think on what is meant by governance as it is when it comes to internal corporation processes, but also what governance is when it comes to corporate sustainability strategies and their interrelations with the external stakeholders.

The paper also brings out regional and sectoral variation in the effectiveness of governance. Depending on the regulatory and economic factors that may affect the firms in the various regions, the governance structures will be associated with sustainability outcome to varying extents. There are those areas that have strong governance frameworks that support the environment and others that require particular policy strategies to enhance corporate responsibility. The identical heterogeneity in sectors also proves that the industries under regulatory quality attention and sustainability incentives, in particular, technology and renewable energy, are doing a better job in governance and sustainability. Conversely, such industries as manufacturing and agriculture are full of structural bottlenecks, which complicate better governance as a more challenging task.

On these findings, a number of recommendations are given to the development of corporate governance and sustainability integration in emerging economies. To this end, regulatory agencies should enhance the policies of corporate governance and raise the level of transparency and ensure that boards of directors are independent enough to exercise serve as a good check. Second, companies need to assume a proactive and active stakeholder engagement strategy that incorporates social and environmental issues in the business strategy of the company. Third, specific governance frameworks of the design industry that reflect the distinct problems of each industry sector, which have governance structures that are consistent with the social-economic and regulatory environment.

It is recommended that policymakers adopt focused attention, thus reforms in governance integration should focus on linking environmental accounting, green financing, and incentives between corporations and strategies. Governments can adopt the best strategies in Asian economies where upkeep of green-finance policies are in consonance with the corporate-governance standard. Theoretically, it is recommended that future scholars explore the moderating role of competition and innovation processes in the relationship between governance and sustainability especially during rapid digitalization and circular-economy

transformation. The use of longitudinal data will also be useful in determining the impact of long-term governance reforms on macro-level and firm-level sustainability outcomes.

Future research ought to explore the long-term outcomes of governance reforms on sustainability indicators, based on longitudinal data to assess the extent of improvement in governance in a measurable environmental and social benefits, over time. Further, this can be further studied by future studies into how the external economic environment, such as foreign investments and trade regulation, has an impact on corporate governance standards. Further research studies can be done based on the current study to determine how these dynamics interact to result in the development/establishment of superior governance models that can subsequently produce greater sustainable corporate growth in the emerging markets.

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