Financial Engineering DOI: 10.37394/232032.2025.3.16

## Advancing Environmental Information Transparency through Country-Level Governance on ASEAN

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Abstract: - Sustainability issues have become a much-debated topic in the last few decades. This is due to significant events, such as the explosion of the Deepwater Horizon oil rig explosion, that have had devastating impacts on the environment. Country-level governance plays a significant role in encouraging environmental information disclosure. Companies that provide environmental information: better county-level governance almost certainly leads to a higher quality of corporate disclosure on the environment. This study reviews to investigate the meaning behind corporate reporting and why there is a need for governmental support to facilitate environmental efforts. As for the environmental information disclosure, it is made through a sustainability report. We measured country-level governance using The World Bank's World Governance Indicators (WGI), which comprises six indicators: Voice and Accountability, government effectiveness, political stability and absence of violence/terrorism, regulatory quality, the rule of law, and Control of corruption. Methodology This study tactics on a literature review based approach, where the information obtained from different written sources connected to this topic are collected and analyzed. These results tell us that in the ASEAN region, Singapore comes out on top for government effectiveness, political stability and absence of violence/terrorism, regulatory quality governance control of corruption rule of law and Timor Leste scored highest on the voice and accountability indicators. Myanmar, meanwhile, achieved the lowest countrylevel governance score.

Key-Words: - country-level government, ASEAN, environmental information disclosure, sustainability

Received: May 13, 2024. Revised: December 2, 2024. Accepted: January 11, 2025. Published: May 8, 2025.

#### 1. Introduction

Sustainability challenges, whether local or global, have a significant impact on the operations of an organization. The outcomes of these sustainability issues can vary depending on the industry sector, location, and the passage of time [1]. Companies communicate their sustainability efforts through sustainability reports to inform investors and stakeholders [2], [3]. The explosion of the Deepwater Horizon oil rig in the Gulf of Mexico on April 20, 2010, was an environmental catastrophe that received extensive coverage in the global media. This event brought attention to the wide-ranging environmental effects and raised questions about the consequences of corporate actions within the business community [4]. Shareholders became more conscious that business

activities could present significant environmental risks and jeopardize their wealth and society [5], [6].

To date, Indonesia is still faced with significant environmental challenges. For example, forest degradation in Indonesia is the third largest tropical forest area after Brazil and Congo. Such degradation has contributed to global and local environmental problems over the years. A long-standing debate also exists between the protection of environmental sustainability and the production of valuable commoditie [7]. In recent decades, Indonesia has surpassed Brazil as the tropical country with the highest deforestation rate [8]. The significant impacts of climate change have raised awareness of the importance of preserving the environment in governments, companies, and civil society worldwide [9]-[11].

Success in addressing the impacts of global warming often depends on how effectively the Indonesian government can slow the rate of deforestation and land degradation. In the forestry sector, which contributes 17% to national emissions of around 1,1 billion tons of CO<sub>2</sub> in 2017, degradation and deforestation accounted for 60% of carbon production. Therefore, these two aspects are the focus of the government's primary attention. Fire, illegal logging, and land use change for various purposes are the main factors that trigger deforestation and land degradation. Out of Indonesia's 125 million hectares of forest area, around 35 million hectares are categorized as unproductive forest land as its canopy cover is less than 30% [12].

One of the unresolved cases of the impact of corporate operations on the environment in Indonesia is the Lapindo Mudflow. Lapindo mud refers to the hot mudflow incident in Porong, Sidoarjo, a tragedy that began on May 29, 2006, and continues to this day [13]. The impact of the Lapindo Mudflow incident on the environment is very significant, including the threat of groundwater pollution that endangers human and animal health, damage to agricultural land resulting in reduced productivity, and the potential for landslides and physical damage to buildings around the Lapindo Mudflow area. The site now faces the problems of poor environmental quality due to high pollution levels. In addition, residents have also lost their source of livelihood. Despite the passage of a dozen years, the suffering of the affected residents continues, and environmental conditions around the site are deteriorating [14].

Another problem is air pollution in Jakarta due to coal-based power plants. Coal-fired Power Plants (PLTUs) are a significant cause of air pollution as  $CO_2$ gas is constantly discharged. consistently contributes to air pollution; although the government does not give the impact much attention, the existence of PLTU is detrimental to the local community. The level of air pollution has reached a very critical level and exceeds safe limits. Based on information from BMKG, the PM 2.5 Index in Jakarta reached its highest average value in May and July 2023, at 102.68 and 93.58 µm/m3. These figures are higher than the highest average in

July of the previous year, which reached 91.77  $\mu$ m/m3. This is noteworthy because the maximum limit of air that is considered healthy by the World Health Organization (WHO) is 35.4  $\mu$ m/m3 [15].

Currently, policymakers, regulators, academics, and investors are showing great interest in governance at the country level [16]. Level-country governance is defined as political structures and conditions that support ecological, social, and market-oriented development by holding the state accountable for the rational use of public resources and political power [17]. The majority of research in the domain of country-level governance agrees on the importance of the quality of such governance. It asserts that effective country-level governance is crucial in promoting economic and social development [18].

One form of the government's role encouraging sustainable innovation is the mandatory issuance by the Otoritas Jasa Keuangan (OJK) Number 51/POJK.03/2017 implementing on Sustainable Finance Financial Services for Institutions, Issuers, and Public Companies. This regulation orders all financial services institutions and companies issuing shares in Indonesia to develop sustainable financial action plans and issue sustainability reports as part of their annual reports. Issuers and public companies not categorized as Lembaga Jasa Keuangan (LJK) that do not comply with the regulations will be subject to administrative sanctions in the form of a written reprimand or warning.

#### 2. Justification Research

At the national level, governance frameworks consist of formal constraints like laws, economic policies, and political procedures that restrict corporate conduct. Moreover, there are informal regulations encompassing societal norms, ethical codes, values, and unspoken customs [19]. Effective national governance can encourage corporate engagement in accountability measures such as disclosing environmental information through methods like coercion, normative reasoning, or mimicking others [20]. This implies that companies in nations with strong governance are more likely to reveal details about their activities and operations. For example, companies in European countries with

excellent governance standards have been shown to provide better disclosure of the risks stemming from their corporate activities [21].

#### 3. Research Methods

A literature review is a research strategy that reviews, synthesizes, and assesses literature or written materials related to the subject of the study [22]–[24]. Unlike primary data collection methods such as surveys or interviews, this approach focuses on analyzing existing information in the scientific literature. The literature review process involves several general steps: [1] Selecting a research topic that aligns with the research objectives; [2] Collecting relevant literature materials, such as books, journal articles, theses, dissertations, and other related documents. [3] Selection of literature that is most related to the research subject. This involves reading and assessing the quality of the literature as well as determining which literature to include in the examination; [4] Organizing the literature by specific topics, concepts, or themes to help structure the examination; [5] Conducting critical analysis and evaluation; and [6] Compiling the results by showing the relationships and patterns that emerge from each piece of literature. The literature review method is beneficial understanding the development of knowledge and academic discussions on a particular topic [22]-[24]. In addition, it can assist in further research design or identify under-explored research areas.

#### 4. Results and Discusson

# 4.1 Legitimacy Theory and Environmental Disclosure

One of the negative impacts of the company's operational activities is environmental problems. These problems generally have a more significant impact in the future, in which case the company must start paying attention to its activities and be responsible for the impacts caused by the present. Actions taken after environmental problems occur and efforts made to prevent environmental problems from getting bigger can increase the company's legitimacy and image.

Legitimacy pertains to the overall opinions or beliefs about the appropriateness of an organization's conduct, determined by its alignment with commonly accepted societal standards, values, beliefs, and definitions. Legitimacy theory explains how companies behave in terms of embracing and increasing voluntary disclosure of social and environmental information [25]. Disclosure of social and environmental information is used by the government, stakeholders, and society to evaluate the company's performance and accountability to the environment stemming from its operations.

Legitimacy theory clarifies the relationship between companies and society, which serves as an important framework for examining the interaction between companies and the local environment [26]. In addition to explaining the dynamics of these relationships, the theory of legitimacy helps in understanding the motivations, strategies, disclosures, and reactions of companies to certain events or challenges in the social and environmental spheres [27]. As a result, when the company's principles are aligned with society's expectations regarding environmental issues, the company establishes legitimacy as an entity that respects the environment. In addition, this legitimacy or public trust can provide incentives and support companies to perpetuate environmentally friendly initiatives or products. So far, the pioneers in green innovation have reaped the benefits of their pioneering status, emerged as key players, improved the company's reputation, and ventured into new market territories [28]–[30].

Organizations establish communication with stakeholders to enhance their credibility [31], [32]. Reporting serves as a channel through which companies naturally communicate with stakeholders [31]. he concept of legitimacy is crucial in the implementation of sustainability reporting, which includes environmental and social dimensions [31], [33], [34]. Legitimacy theory has historically been used as a tool to explain why companies should participate in social and environmental performance reporting and remains relevant in this context [31], [35].

# **4.2 Country-Level Governance and Environmental Information Disclosure**

Country-level governance is considered to be the systems and processes that assess resource utilization in a country. Previous research has highlighted the significant impact of country-level governance on corporate transparency [20], [36], including environmental disclosure [37]. The country-level governance framework relies on the World Governance Indicators (WGI) introduced in 1996 in more than 200 countries. The WGI evaluate governance along six dimensions: voice and accountability, government effectiveness, political stability, regulatory quality, rule of law, and control

of corruption [38]. These indicators are derived from a variety of variables obtained from an extensive database. The consolidated data reflect the perspectives of global governance from a wide range of respondents, which include both public and private sector specialists [19].

Differences in scores between countries and changes over time within countries suggest that can provide insights metrics environmental information reporting [39]. Countrylevel governance systems consist of formal restrictions such as laws, economic and political processes, and other rules that limit corporate behavior. In addition, informal regulations include social norms, codes of conduct, principles, and implicit traditions [19]. Effective country-level governance can support corporate engagement in accountability initiatives such as environmental information disclosure, whether through coercion, normative rationale, or mimicry [20]. Companies operating in European nations with superior governance structures often exhibit higher-quality risk disclosures [21].

Accountability and transparency are essential elements for effective state governance. These factors play a vital role in establishing legitimacy and economic policies to promote stable economic sustainable development. growth and Good fosters conducive business governance environment and enhances transparency in economic operations. Its primary objective is to uphold legitimacy, the rule of law, equity, and market openness [16].

This pressure from institutional and social aspects encourages companies to improve the quality of their environmental information. This aims to change stakeholders' views on the company's environmental performance to improve company's social status [40]–[42]. In the context of legitimacy organization theory, to survive and operate in the long term, a company must comply with relevant policy standards and meet social expectations of society. Production and operational activities must conform to various institutional norms, suggesting that the companies must take appropriate social responsibilities [34], [43], [44]. Companies that transparently convey information about the environment generally get a positive response from investors [45].

#### **4.2.1** Control of Corruption

Measuring the control of corruption serves as a gauge of a country's ability to prevent and combat corrupt activities in both public and private sectors [46]. This metric reflects opinions on the degree to

which public authority is exploited for personal benefits, encompassing various forms of corruption, as well as the influence of elites and private interests on government affairs [19], [47], [48]. This measure can be utilized to compare corruption levels among countries or track a nation's progress in controlling corruption over time [49].

Controlling corruption is recognized as a significant factor influencing the disclosure of environmental information [39]. Managers in companies often manipulate financial data as a means to hide opportunistic actions that prioritize the interests of certain investors. This manipulation can lead to a decrease in transparency and accountability in financial reporting, potentially affecting the disclosure of environmental information [50]. This manipulation can lead to decreased transparency and accountability in reporting, potentially financial affecting disclosure of environmental information (Fan et al. 2014). Corruption creates strong incentives for companies to avoid disclosing social environmental information, especially in developing countries [51].

Companies operating in countries with lower levels of corruption tend to show higher levels of environmental disclosure [52]. This is because firms actively implement ethical business practices in response to local institutional pressures aimed at expanding market share or reducing transaction costs [39]. Embracing environmental issues can be a catalyst for firms to undertake environmental innovation, leading to more efficient resource utilization [53].

#### 4.2.2 Government Effectiveness

Government effectiveness is a measure of government performance that considers the quality of public services offered to the public, proficiency in policy formulation and implementation, and a strong determination to enforce these policies [54]. Government effectiveness influences various sectors within a nation, including economic growth, adherence to the rule of law, regulatory standards, environmental conservation, energy management, and more [55], [56]. Government effectiveness plays a crucial role in achieving sustainability through the enactment of environmental policies, prudent use of natural resources, and safeguarding the environment [57].

The World Bank utilizes government effectiveness as a metric to evaluate the performance of administrations worldwide. This parameter assesses the quality of public services, bureaucratic autonomy in the face of political

influence, policy formation quality, and government integrity [58]. Government effectiveness will likely impact all aspects of company operations in a country [59], including company disclosure policies [60]. The importance of using environmental information for the government to address environmental pollution is significant, and the green innovation index has become a key parameter in evaluating the sustainability of economic growth [61].

## 4.2.3 Political Stability and Absence of Violence/Terrorism

Political stability and the prevention of violence and terrorism are key indicators used by the World Bank to gauge governance quality in different countries and regions. This criterion measures how well governments prevent unconstitutional changes and violent acts like civil conflicts, warfare, or terrorism. A high rating signifies strong political stability and a lack of violence or terrorism, while low scores suggest lower stability and security [19].

The sustainability of governance systems has an impact on environmental sustainability. When management practices allow corporations to exploit natural resources and ecosystems, environmental sustainability is jeopardized. Overexploitation of the environment leads to natural resource depletion and environmental degradation. strict Less environmental regulations lead to environmental degradation and depletion of resources, while stringent regulations help alleviate pressure on the environment and natural resources. Political stability and the absence of violence and terrorism foster a secure environment for investment and savings. A dependable political framework manages environmental crises effectively and enforces appropriate policies for environmental protection, ensuring sustainability and preventing environmental degradation [62]. The overall performance and stability of the political system play a vital role in shaping environmental policies [63].

#### 4.2.4 Regulatory Quality

Regulatory quality is a key parameter utilized by the Worldwide Governance Indicators (WGI) to assess the governance quality of a country or region. It indicates how well the government can create and implement policies and regulations that promote and facilitate growth in the private sector [19]. The regulatory landscape of a nation encompasses the laws and standards established regarding climate change. Hence, the role of governments is crucial as

they can establish laws and regulations that incentivize businesses [64].

Regulatory pressure is a very influential factor because it comes from the provisions of laws and regulations that must be obeyed, as well as supervision of company compliance implementation of sanctions if there is a violation [65], [66]. Therefore, in the context of institutional regulation, a legal framework is formed that influences organizational behavior [67]. Organizations that can adjust to the pressures posed by the regulatory pillar in the context of their state institutions gain legitimacy, which is the cultural support they receive [68].

#### 4.2.5 Rule of Law

The rule of law is one of the parameters used by Worldwide Governance Indicators (WGI) to assess the quality of governance in a country or region. The principle of supremacy of law reflects the extent to which citizens and institutions respect and abide by the law, including in terms of legal certainty, law enforcement, and judicial independence [19]. Higher scores indicate better quality of governance in terms of law, while lower scores indicate worse quality of governance in terms of law. In addition, WGI's rule of law principles are complemented by percentile rankings, which show the relative position of a country or region compared to other countries or regions in terms of legal aspects [69]. The goal of sustainable development can only be realized with two critical factors. One is state intervention and the quality of governance. The other factor closely related to the first is the quality of the institutional context. Institutions determine the implementation and outcomes of government policies, reflecting the capacity to address environmental issues. More vital institutions reflect environmental awareness. prioritizing environmental protection as an active sustainable development policy [70].

#### 4.2.6 Voice and Accountability

Voice and Accountability reflect perceptions of the extent to which citizens of a country can participate in selecting their government, including freedom of expression, freedom of association, and freedom of the media [19]. With the possibility of a higher level of media independence in a country, there is an association with an increase in the quality and quantity of information disclosed on environmental issues by companies [71]–[73].

In particular, media attention can significantly affect corporate reputation and stimulate a response, helping to change companies' environmental performance and disclosure practices [40], [74].

Related to this, Blanc et al. 2017 concluded that previous research consistently supports the argument that more robust media exposure tends to result in increased social and environmental disclosure [39].

### 5. Frameworks Country Level Governance Worldwide Governance Indicators (WGI)

The WGI evaluate governance across six dimensions: voice and accountability, government effectiveness, political stability and the absence of violence/terrorism, regulatory quality, rule of law, and control of corruption [46].

Table 1. Worldwide Fovernance Indivator (WGI)

Indicators	Definitions		
Control of Corruption	Control of corruption is a metric used to assess a country's ability to prevent and address corrupt practices in both public and private sectors. Compiled by The World Bank and updated annually with data from various sources, this indicator ranges from 2.5 to 2.5, with higher scores indicating better control over corruption [19].		
Government Effectiveness	Government effectiveness is a measure of government performance that assesses the quality of public services offered to the public, proficiency in making and implementing policies, and commitment to implementing those policies [54]. This parameter is assessed on a scale from -2.5 to 2.5, by assigning a standard normal distribution to these values [19].		
Political Stability and Absence of Violence/Terror ism	Political stability and the absence of violence/terrorism evaluate governance quality in different countries or regions. This indicator shows the extent to which the government is protected from the risk of unconstitutional change or acts of violence, such as internal conflict, war, or terrorism. This parameter is assessed on a scale from -2.5 to 2.5, by assigning a standard normal distribution to these values [19].		
Regulatory Quality	Regulatory quality is used to assess the quality of governance, reflecting the government's capacity to design and implement policies and regulations that encourage and stimulate private sector growth. This		

Indicators	Definitions					
	parameter is assessed on a scale from -2.5 to 2.5, by assigning a standard normal distribution to these values					
Rule of Low	[19].  The rule of law is used as a metric to evaluate the quality of governance in a country or region. The rule of law signifies the level of respect and adherence to legal norms by citizens and institutions, covering aspects such as legal certainty, law enforcement, and judicial independence. This parameter is assessed on a scale from -2.5 to 2.5,					
	by assigning a standard normal distribution to these values [19].					
Voice and Accountability	Voice and Accountability measures the extent to which a country's population can engage in the process of electing the government, covering elements such as freedom of expression, association, and media. The Voice and Accountability range is standardized from -2.5 to 2.5 [19]. A score of 2.5 indicates an environment without hindrances to participating in elections, while -2.5 denotes situations where individuals lack the means to express their opinions. The value '0' signifies the average level of voice and Accountability [75].					

The aforementioned data table explores the scores achieved by each ASEAN country concerning Country-Level Governance and Environmental Information Disclosure.

Table 2. Country-Level Governance and Environmental Information Disclosure on The ASEAN Region

Country	Y	CC	GC	PS	RQ	RL	VA
Indonesia	2018	-0.3	0.1	-0.6	0	-0.3	0.2
	2019	-0.5	0.1	-0.5	0	-0.3	0.1
	2020	-0.5	0.3	-0.5	0.2	-0.4	0.1
	2021	-0.4	0.3	-0.5	0.3	-0.3	0.1
	2022	-0.4	0.4	-0.4	0.2	-0.2	0.1
Brunai Darussalam	2018	0.8	1.2	1.2	0.7	0.6	-0.9
	2019	0.8	1.3	1.1	0.6	0.6	-1
	2020	1.2	1.4	1.2	0.9	0.9	-0.9
	2021	1.2	1.4	1.2	1	0.9	-0.8
	2022	1.2	1.4	1.3	1.1	0.9	-0.8
Malaysia	2018	0.3	1.1	0.2	0.6	0.5	-0.1

Country	Y	CC	GC	PS	RQ	RL	VA
	2019	0.2	1	0.1	0.5	0.5	0
	2020	0.2	1	0.1	0.7	0.6	-0.2
	2021	0.1	1	0.1	0.7	0.5	-0.2
	2022	0.2	1	0.1	0.6	0.6	0
Singapore	2018	2.1	2.2	1.5	2.1	1.8	-0.1
	2019	2.1	2.2	1.5	2.2	1.8	-0.2
	2020	2.1	2.3	1.4	2.2	1.8	-0.2
	2021	2.1	2.3	1.4	2.2	1.8	-0.1
	2022	2.1	2.1	1.5	2.2	1.8	0
	2018	-0.5	0.3	-0.8	0	0.0	-1
	2019	-0.5	0.3	-0.5	0	0.1	-0.8
Thailand	2020	-0.5	0.2	-0.6	0.1	0.1	-0.8
	2021	-0.5	0.2	-0.6	0.1	0.1	-0.8
	2022	-0.5	0.1	-0.4	0.2	-0.1	-0.6
	2018	-0.5	-0.9	0.2	-0.8	-1.1	0.3
	2019	-0.4	-0.9	0.2	-0.8	-1.1	0.4
Timor Leste	2020	-0.3	-0.8	0.2	-0.8	-1.2	0.4
Leste	2021	-0.1	-0.8	0.2	-0.8	-1	0.5
	2022	-0.3	-0.8	0,3	-0.5	-0.9	0.5
	2018	-0.5	0	0	0.2	0	-1.5
	2019	-0.5	0	0	-0.4	-0.1	-1.4
Vietnam	2020	-0.4	0.2	0	-0.2	-0.2	-1.4
	2021	-0.3	0.2	-0.1	-0.4	-0.2	-1.3
	2022	-0.3	0.2	0	-0.4	-0.2	-1.3
	2018	-0.6	-1.1	-1.3	-0.8	-1	-0.9
	2019	-0.6	-1.2	-1.3	-0.8	-1,1	-0.9
Myanmar	2020	-0.7	-1	-1.5	-0.6	-1.2	-0.9
	2021	-1	-1.4	-2.1	-1.1	-1.5	-1.7
	2022	-1.2	-1.7	-2.2	-1.2	-1.5	-1.8
	2018	-1	-0.7	0.4	-0.8	-0.9	-1.8
Laos	2019	-1.1	-0.8	0.5	-0.8	-1	-1.8
	2020	-1.1	-0.7	0.7	-0.8	-0.9	-1.8
	2021	-1.1	-0.6	0.7	-0.9	-0.7	-1.7
	2022	-1	-0.6	0.8	-1	-0.8	-1.7
Filipina		-	-	-	-	-	_
Kamboja		ı	-	-	-	-	ı

**Source:** [76]

#### **5.1** Control of Corruption (CC)

Control of corruption is a parameter that measures the extent to which a country can prevent and overcome corrupt practices in the public and private sectors [19]. Better Control of corruption in a

increase the transparency country can Accountability of environmental information disclosed in sustainability reports. The better the Control of corruption in a country, the less effort to manipulate accounting information in a company, which will improve the quality of environmental information disclosure. This is what makes the governance of a country significant in encouraging disclose better environmental companies to information and prepare companies to face possible future impacts resulting from their operational

In 2018-2022, for countries in corporate in ASEAN, the best score was obtained by Singapore with a score of 2.1, and the worst score was obtained by Myanmar with -1.2 in 2022. Indonesia's control of corruption is at a score range of -0.5 to -0.3 in 2018 to 2022. Although not at its lowest position in the last five years, this figure is already below average. It can be concluded that the Indonesian state is still very low in the control of corruption category.

#### **5.2** Government Effectiveness (GE)

Government effectiveness is a measurement of government performance that is carried out by considering the quality of public services provided to the community, proficiency in formulating and implementing policies, and seriousness in carrying out these policies [54]. In the environmental information disclosure, government effectiveness refers to the extent of the government's efforts to address environmental problems and government's commitment to realizing sustainability agendas such as Sustainability Development Goals 2030 and The Paris Agreement. The government has a role in issuing policies that can improve the quality of environmental information disclosure; indirectly, these policies can motivate companies to improve the quality of environmental information disclosure. Better quality disclosure will provide feedback for the government to evaluate the effectiveness of a government.

Singapore was the best country at the ASEAN level with country-level governance for government effectiveness indicators, with a score of 2.3 in 2020 and 2021. Meanwhile, the country with the lowest ranking in the ASEAN countries is Myanmar, with a score of -1,7 in 2022. Indonesia's government effectiveness over the past five years has been at 0.1 to 0.3 on a scale of -2.5 to 2.5. This indicates that there is an increase every year. This score illustrates that the quality of governance in Indonesia is quite good, although it still needs improvement.

Financial Engineering DOI: 10.37394/232032.2025.3.16

# 5.3 Political Stability and Absence of Violence/Terrorism (PS)

Political stability and absence of violence/terrorism reflect the extent to which the government avoids the threat of constitutional changes or acts of violence, such as civil conflict, war, or terrorism [19]. Politics in a country is said to be stable if no threats or pressures make the country submit to other parties. Countries that have stable politics and are free from the threat of violence or terrorism will tend to have better governance; this is reflected in the independent government in managing the country. Stable politics will not be easily influenced by any political pressure, especially in making decisions to create regulations to ensure the rights of its citizens are fulfilled. This stable political role will influence decisions in dealing with environmental issues. This decision reflects how much the political elite cares about dealing with environmental issues. A country with good political stability and free from violence and terrorism will contribute to solving environmental problems as a form of the political elite's role in fulfilling its citizens' rights.

In ASEAN countries, the best political stability and absence of violence/terrorism indicator was obtained by Singapore with a score of 1.5 in 2018,2019, and 2022. Countries with country-level governance for political stability and absence of violence/terrorism indicator Myanmar with a score of 2.2 in 2022. Indonesia over the last five years has been at -0.6 to -0.4 on a scale range of -2.5 to 2.5. This indicates that there is an increase every year. Despite occupying the top position in ASEAN countries, Indonesia obtains a minus score and is below average. This score indicates that Indonesia still has a low level of political stability and a tendency for violence/terrorism to occur, although there has been an increase in recent years.

#### **5.4 Regulatory Quality (RO)**

Regulatory quality reflects how the government formulate and implement policies and regulations that support and encourage private sector growth [19]. Quality regulations will have an impact on all levels of society. Policies formulated policies will make it easier for the country to achieve its goals that a country wants to achieve. Government regulations related to environmental issues will be reflected in policies that minimize environmental impacts due to company activities. One form of regulation to deal with these environmental issues can be issuing mandatories regarding the company's their obligation to disclose sustainability information, especially environmental information disclosure. The better the quality of regulations a country makes, the better the quality of environmental information disclosure will be.

In ASEAN countries, Singapore ranks top for regulatory quality indicators with a score of 2.2 in 2019-2022. Myanmar ranks lowest with a score of -1,2 in 2022. The quality of regulations in Indonesia over the last five years has been at 0 to 0.3 on a scale range of -2.5 to 2.5. This indicates that there is an increase every year although there is a decrease in 2021. This score indicates that Indonesia has a relatively good quality of governance in the regulatory aspect, although there is still a need for further improvement. This is because public policymaking often involves a bargaining or negotiation process between the executive and the legislature, resulting in decisions that need to be more firm. In addition, the need for more public participation in the planning and decision-making process affects state administration decision-making [77].

#### 5.5 Rule of Law (RL)

The principle of the rule of law reflects the extent to which citizens and institutions respect and are subject to the law, including in terms of legal certainty. law enforcement, and iudicial independence [19]. The rule of law refers to the government's compliance with the law, which is not only about politics and government but also about international agreements that have been approved. The government plays a vital role in enforcing these legal principles in its country. The Paris Agreement and SDGs 2030 are one form of agenda that requires the government to achieve the goals of the agenda. This law enforcement will force and encourage companies to pay more attention to their operational activities. A country with a better rule of law will improve the quality of the country's environmental information disclosure; this is an implementation of government support and government compliance with internationally applicable policies.

Singapore occupies the top position for the rule of law indicator with a score of 1.8 in 2018-2022. Myanmar is in the lowest ranking with a score of 1.5 in 2022. The rule of law in Indonesia over the last five years has been at -0.4 to -0.2 on a scale range of -2.5 to 2.5. This indicates that there is an increase every year even though there was a decrease in 2020, but it increased again in 2021. This score reflects that the quality of Indonesia's governance in the legal aspect is quite good, although it still requires improvement. This is because law enforcement in Indonesia still needs to improve, especially in enforcing the rule of law among officials compared to law enforcement at

Financial Engineering DOI: 10.37394/232032.2025.3.16

lower levels. This situation occurs because power is often a determining factor in the outcome of trials [78].

#### 5.6 Voice and Accountability

Voice and Accountability reflect the perception of the extent to which a country's citizens can participate in the election of their governments, including freedom of expression, freedom of association, and freedom of the media [19]. Voice and Accountability relate to the extent of the government's role in providing a forum for the public to channel their opinions and realize that Accountability and transparency from government can be realized. Currently, the internet media is the most effective forum for channeling opinions and demanding Accountability transparency of information, especially regarding steps taken by companies in responding to environmental issues. In this case, the companies are obliged to disclose information about the company's operational impacts, especially about environmental impacts, as a form of corporate responsibility to parties who have the right to obtain this information, such as the government, stakeholders, and the surrounding community.

Over the last five years, Indicators Voice and Accountability had the highest score in ASEAN countries, Timor Leste with a score of 0.5 in 2018-2022. Myanmar was in the lowest position with a score of -1.8 in 2022 and Laos with score -1.8 in 2018-2020. Voice and Accountability in Indonesia over the past five years has been at 0.1 to 0.2 on a scale range of -2.5 to 2.5. There is a decrease from 2019 and stabilizes at 0.1 until 2022. Although above average and not last in the ASEAN region, this score needs to be improved.

#### 6. CONCLUSION

Legitimacy refers to a common perception or assumption about the conformity of an action by an entity to socially recognized norms, values, beliefs, and definitions. This is an essential factor in sustainability reporting, including environmental and social aspects. Legitimacy theory has long been used to explain why companies choose to report their social and environmental performance. Country-level governance is the framework and process that governs the use of resources in a country. This concept uses World Governance Indicators (WGI), which started in 1996, to measure state governance through six dimensions: voice and Accountability, government effectiveness, political

stability and absence of violence/terrorism, regulatory quality, rule of law, and Control of corruption. This pressure from institutional and social aspects encourages companies to improve the quality of their environmental information to change stakeholder perceptions of the company's environmental performance and improve its social status.

These results show that in the ASEAN region, Singapore leads five indicators with the highest scores: government effectiveness, political stability and absence of violence/terrorism, regulatory quality, rule of law, and Control of corruption. Timor Leste obtained the highest score on the voice and accountability indicator. Meanwhile, the country with the lowest country-level governance score was Myanmar. Even though Indonesia does not occupy the worst position in the ASEAN region, country-level governance in Indonesia is still relatively low. This will lead to low environmental information disclosure.

This research is only a literature review method by collecting theories from previous studies that are interconnected. The limitation of this research is that all data obtained is only for countries in the ASEAN region. It is expected for future research to conduct further studies for other regions and even the world and conduct statistical data to cloud the theories that have been collected in this study.

# Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author(s) used Claude and Chat GPT in order to to assist in formulating the letter structure, refining language, and enhancing the clarity of serearch concept presentation. After using this technology, the authors reviewed and edited the content as necessary and take full responsibility for the content of the publication.

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# Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

The authors equally contributed in the present research, at all stages from the formulation of the problem to the final findings and solution.

# Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

No funding was received for conducting this study.

#### **Conflict of Interest**

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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