CHAPTER I

INTRODUCTION

1.1 Research Background

The integration of environmental, social, and governance (ESG) considerations has accelerated rapidly within Indonesia's capital markets between 2021 and 2024, reflecting both regulatory consolidation and shifting corporate strategies. A crucial milestone in this trajectory was the publication of the Sustainable Finance Roadmap Phase II (2021 to 2025) by Otoritas Jasa Keuangan (OJK), designed to implement ESG values across Indonesia's financial sector. According to the roadmap, the aim was to "strengthen the implementation of sustainable finance through a more inclusive, comprehensive, and measurable approach, integrated across financial institutions, issuers, and public companies" (OJK, 2021). The roadmap emphasized alignment with global sustainability frameworks while reinforcing domestic mechanisms such as ESG-based risk assessment, product innovation, and mandatory disclosure practices.

This policy direction was built upon previously established regulations, notably OJK Regulation No. 51/POJK.03/2017 which continues to serve as the legal foundation for sustainability implementation. Article 2(1) of the regulation states: "financial service institutions (LJK), issuers, and public companies must implement sustainable finance in their business activities." POJK 51 established mandatory reporting mechanisms, obligating institutions to annually develop an Sustainable Finance Action Plan (RAKB) and publicly disclose a Sustainability Report. Article 12(2) mandates that "Sustainability Reports must be published on the company website no later than April 30th of the following year" (Peraturan OJK No. 51/POJK.03/2017, 2017). The regulation created a phased implementation schedule to ensure full compliance across all financial entities by 2025, resulting in many institutions beginning to submit ESG disclosures throughout the 2021 to 2024 period.

Parallel to regulatory developments, IDX has introduced ESG-focused initiatives to reward and recognize companies with strong ESG performance in 2020. Among these is the IDX ESG Leaders Index, which is "an index that measures price performance of stocks that become leaders in ESG rating and do not have significant controversies selected from stocks with high trading liquidity and good financial performance" (IDX, n.d.-b). Investor sentiment has also shifted in favor of ESG-aligned companies. In an interview with Katadata, Jeffrey Hendrik, Director of Business Development at IDX, stated "there are trillions of dollars of funds ready to be invested in ESG instruments. This presents an opportunity for our listed companies to capitalize on it" (Widowati, 2024).

Indonesia's regulatory progress has also gained international recognition. The Sustainable Finance Roadmap Phase II (2021–2025) highlighted that "a survey conducted by GlobeScan and the Global Reporting Initiative (GRI) ranks Indonesia at the top for honest disclosure of information presented in the company's sustainability reports that are made available to public" (OJK, 2021). In 2023, Indonesia achieved the second-highest ESG rating in the Asia-Pacific region, according to a global ranking released by Sustainalytics and reported by major financial news outlets. As highlighted by IDX, this result was attributed to "strong regulatory initiatives" and "increasing transparency among listed companies regarding sustainability and governance metrics" (IDX, 2023).

As of mid-2024, "97% of companies listed on the Indonesia Stock Exchange have submitted sustainability reports by 2023. The number of listed companies submitting sustainability reports has also increased significantly, increasing 16-fold in the last eight years" (Waluyo, 2024). According to the Head Director of IDX, Iman Rachman, "regulators encourage listed companies that have internalized sustainable principles in their business activities through regulations that require sustainability reports" (Waluyo, 2024). "The regulation in question is Financial Services Authority Regulation (POJK) Number 51 of 2017 concerning the implementation of sustainable finance for financial services institutions (LJK), issuers, and public companies. 'The Stock Exchange has gradually made reporting mandatory for listed companies, starting in 2019,' he said."

In response to these changes, the accounting profession adapted by realigning its disclosure standards with the evolving global norms. In December 2024, *Ikatan*

Akuntan Indonesia (IAI) issued two exposure drafts: PSPK 1, General Requirements for Disclosure of Sustainability-related Financial Information, and PSPK 2, Climate-related Disclosures. Both were local adaptations of IFRS S1 and IFRS S2 published by the International Sustainability Standards Board (ISSB). PSPK 1 mandates that entities must disclose sustainability information that allows users to “understand the relationship between governance, strategy, risk management, and metrics and targets” (IAI, 2024a). PSPK 2 focuses specifically on climate risks, requiring companies to disclose “current and anticipated impacts of climate-related risks and opportunities on their business model, financial position, and strategy” (IAI, 2024b). The effective date for both standards is set for January 1, 2027, and early adoption is encouraged. Importantly, the standards grant a three-year transitional period during which entities are “permitted to omit Scope 3 greenhouse gas emissions and to use alternative measurement methods to the Greenhouse Gas Protocol” (IAI, 2024b).

IAI’s commitment to ESG reporting was further reinforced in early 2025. In a press release issued on February 6, 2025, IAI declared: “IAI remains committed to adopting accounting and sustainability disclosure standards based on IFRS, believing that these standards will enhance investor confidence and strengthen Indonesia’s competitiveness on the global stage” (IAI, 2025). The Chair of IAI, Ardan Adiperdana, stated: “with proper standard implementation, companies can improve investor trust, facilitate performance comparisons, and ensure regulatory compliance” (IAI, 2025).

The rapid growth of ESG practice is also mirrored in national-level initiatives and private sector engagement. “PwC Indonesia strengthens its commitment to Environmental, Social, and Governance (ESG) development through various initiatives, partnerships, and educational activities” (Rabbi, 2024b). As the Sustainable Finance Roadmap Phase II (2021–2025) states, “increasing awareness and demand for ESG implementation create business opportunities for business actors. This business opportunity requires adequate infrastructures, not only from regulators, but also from business actors and related ministries/institutions in forms of support and collaboration” (OJK, 2021). This reflects a shift in perception where ESG is no longer viewed solely as a regulatory burden but increasingly as a strategic lever for innovation, differentiation, and competitive advantage.

Following this widespread adoption of ESG practices across the Indonesian capital market, it can be observed that companies operate under different sectoral characteristics. In practice, companies in the financial sector are subject to different regulatory frameworks and operational characteristics compared to non-financial companies, particularly in relation to supervision, risk management, and reporting requirements. In this context, empirical observations among non-financial companies in Indonesia suggest a compelling connection between strong ESG performance and financial outcomes. During the IDX Channel ESG 2024 Workshop and Panel Discussion, "Risa E. Rustam, Director of Finance, Human Resources, and General Affairs at the IDX, explained that ESG implementation not only concerns social or environmental responsibility but also positively impacts a company's financial performance" (Rabbi, 2024a). Risa stated that "companies that pay attention to sustainability aspects tend to be more stable and able to achieve long-term growth compared to companies that do not pay attention to ESG."

Beyond official indices, the IDX has communicated directly to market participants, that conversely, "ESG helps companies identify and manage long-term risks, including environmental, social, and governance risks, that can impact their business sustainability. Companies that ignore these risks may face legal challenges, fines, or reputational damage, negatively impacting financial performance" (IDX, 2024). Together, these findings show that ESG awareness and implementation have scaled in Indonesia, strong ESG performers in non-financial industries are observed to yield higher profitability.

However, an important phenomenon arises in that the rapid growth of ESG adoption and sustainability reporting is not always accompanied by consistent implementation quality and credibility, this phenomenon is commonly referred to as greenwashing. "Greenwashing is the act of companies conveying exaggerated, inaccurate, or misleading information or claims about the sustainability practices or environmental impacts of their products, services, or business processes" (Astuti et al., 2026). Greenwashing is a significant risk in Indonesia's corporate sector due to gaps in OJK Regulation No. 51/POJK.03/2017. The regulation's flexibility regarding ESG measurement and reporting allows companies to publish unverified sustainability claims.

Although most companies have prepared sustainability reports, “only a small percentage of companies have received independent assessments of their reports, while the majority still prepare formal reports without reflecting actual sustainability implementation. In some cases, reports record increasing greenhouse gas (GHG) emissions that contradict sustainability goals, and many have not reported emissions at all, despite being mandatory” (Setiawan, 2025). This condition is further exacerbated by regulatory limitations, where “weak supervision creates room for some companies that have not fully adhered to sustainability principles in ESG aspects to claim that their business activities have complied with the established standards” (Nugraha, 2024).

Consequently, despite the substantial increase in ESG disclosure practices and sustainability reporting participation in Indonesia, concerns regarding the substantive quality and credibility of ESG implementation continue to emerge. These concerns are also reflected in global investor perceptions, where “94% of investors believe corporate reporting on sustainability performance contains some level of unsupported claim, including 15% who think they are there to a ‘very large extent’” (Chalmers & Picard, 2023). These conditions suggest that reported ESG performance may not always fully capture the underlying quality and consistency of ESG implementation within companies.

One example that reflects this phenomenon is PT Pertamina (Persero), which has consistently demonstrated relatively strong ESG performance and is recognized among leading companies in managing sustainability risks. However, despite these achievements, the company has faced significant environmental issues that contradict its ESG standing. In July 2025, a pipeline leak occurred at PT Pertamina EP Rantau Field, where residents reported that the pipe was “emitting water that smelled very pungent, like wastewater,” and that similar incidents had “happened many times” at different locations (Berita Merdeka, 2025). Such leaks are particularly concerning because the discharged brine from oil operations can contain harmful chemical elements that risk contaminating soil and water, increasing toxicity, and disrupting surrounding ecosystems, potentially leading to long-term environmental and health impacts (Berita Merdeka, 2025).

Concerns also arise in the social aspect of the company's operations, particularly in its relationship with local communities. In 2023, protests occurred at a Pertamina depot involving local residents who expressed dissatisfaction over limited employment opportunities for the surrounding community. A resident stated that the company "has not provided employment opportunities for local residents and every time job openings are opened, they ignore them and refuse to hire them," while repeated efforts through village officials were met with a lack of response, which "sparked anger among local residents" and led to demonstrations (Waspada, 2023). The village head further noted that although formal complaints and recommendations had been submitted, the company "failed to respond positively" after receiving the required information (Waspada, 2023).

In terms of governance, the company has also faced significant issues that contradict its ESG standing. In 2025, "the Attorney General's Office last week arrested five executives at three units of Pertamina on charges of alleged corruption related to oil imports between 2018 and 2023 that caused $12 billion in state losses" (Christina & Teresia, 2025). Furthermore, "three executives at three of Pertamina's subsidiaries were accused of colluding to justify higher crude oil and fuel imports volumes instead of sourcing them domestically, as required. Two other executives at Pertamina Patra Niaga allegedly approved the importation of 90-octane gasoline at the price of higher-quality 92-octane gasoline, and approving a decision to blend 88-octane gasoline with Pertamax, which was then sold at the price of higher-octane fuel" (Christina & Teresia, 2025). These cases illustrate that, despite strong ESG ratings, there remain material discrepancies in practices, indicating that reported ESG performance may not fully reflect the underlying quality of implementation.

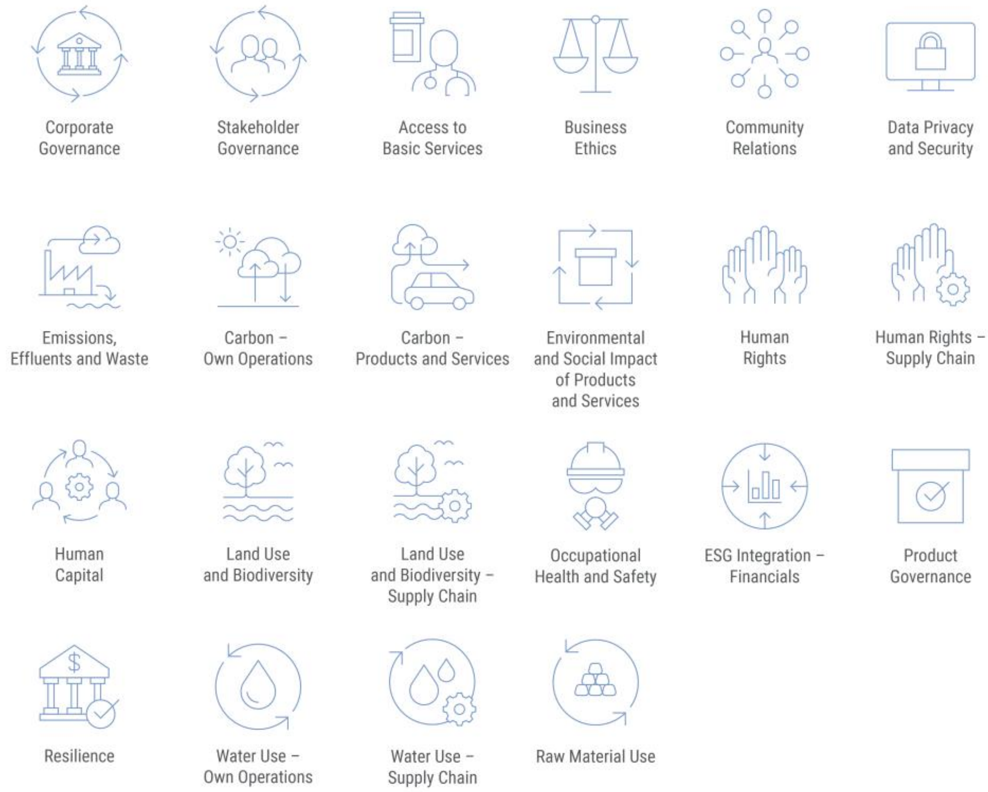
According to IDX (n.d.-a), companies should "implement a strong risk management system that identifies, measures, and responds to these ESG risks accordingly," emphasizing that "strong ESG practices can boost efficiency, reduce costs, increase worker productivity, and foster innovation." In addition, IDX explains that companies can "protect their reputation by showing a strong commitment towards integrating ESG practices in their strategic and operational agenda," which "will strengthen the trust between companies and their investors, as well as other stakeholders." Furthermore, IDX notes that investors "have begun directing their capital towards investments that create positive financial, social, and environmental impact in the long run," and that companies "can attract more investors by implementing and regularly disclosing their ESG initiatives" while also benefiting from retaining long-term investors. Based on these statements, ESG implementation extends beyond fulfilling corporate social responsibilities, serving as a strategic approach that strengthens the management of long-term risks and opportunities, enhances corporate reputation and stakeholder trust, and increases companies' ability to attract long-term investment.

One company that demonstrates the importance of ESG implementation is PT Pertamina Geothermal Energy Tbk (PGEO). As a renewable energy company, PGEO integrates sustainability into its long-term business strategy, stating that its sustainability initiatives are "integrated with PGE's business processes" and support its vision "to become a world-class green energy company" (Pertamina Geothermal Energy Tbk., 2025). In pursuing this vision, the company adopts long-term strategies focused on Geothermal Development, Downstream Industry, and Green By-Product and New Revenue Stream, which are designed to accelerate business growth while strengthening long-term business sustainability (Pertamina Geothermal Energy Tbk., 2025). Furthermore, PGEO acknowledges various future challenges, including geopolitical uncertainty, climate change, energy transition, and electricity market conditions, while emphasizing that it has "prepared various mitigation measures" to address these challenges and continues to monitor external factors that may affect the Company's performance as part of its risk management strategy (Pertamina Geothermal Energy Tbk., 2025). This demonstrates how ESG implementation enables companies not only to manage long-term risks but also to capture emerging opportunities that support sustainable growth.

In addition to strengthening its ability to manage long-term risks and opportunities, PGEO's commitment to ESG has also enhanced its corporate reputation and strengthened stakeholder trust through various national and international recognitions. The Company states that it "consistently integrates ESG principles into every aspect of its operations and business strategy," reflecting its commitment to sustainable value creation (Pertamina Geothermal Energy Tbk., 2025). This commitment has been recognized globally through its Sustainalytics ESG Risk Rating of 7.1 (Negligible Risk), making PGEO "the company with the lowest ESG risk within both the renewable energy subsector and the global utilities industry," while also being recognized as a leader in the IDX ESG Leaders Index. In addition, the Company received several sustainability-related recognitions during 2024, including the Gold PROPER Award from Indonesia's Ministry of Environment and Forestry and various community development and corporate social responsibility awards, further demonstrating external stakeholders' recognition of its sustainability performance (Pertamina Geothermal Energy Tbk., 2025). These achievements indicate that consistent ESG implementation can strengthen a company's credibility and reputation while fostering greater trust among investors, regulators, and other stakeholders.

Furthermore, PGEO's commitment to ESG has enabled the Company to attract sustainable investment through green financing initiatives. The Company states that it established a Green Financing Framework "to support the financing and refinancing of Eligible Green Projects," and that the framework "demonstrates the Company's commitment to sustainability and aligns with international best practices for green financing" (Pertamina Geothermal Energy Tbk., 2025). As part of this commitment, PGEO successfully issued USD 400 million Green Bonds in April 2023, with the proceeds allocated to finance and refinance eligible geothermal projects in accordance with the Green Financing Framework (Pertamina Geothermal Energy Tbk., 2025). The Company further explains that the Green Bond issuance broadened its access to sustainable financing while supporting the development of renewable energy projects that contribute to Indonesia's energy transition and long-term sustainability objectives (Pertamina Geothermal Energy Tbk., 2025). This demonstrates that a strong commitment to ESG implementation can enhance investor confidence and facilitate companies' access to sustainable sources of capital, thereby providing financial resources to support long-term business growth.

Evidence that strong ESG performance may not fully reflect the underlying quality of its implementation among Indonesian non-financial companies motivates a closer examination of the factors that drive ESG outcomes at the firm level. To assess ESG performance in a consistent and measurable manner, this study refers to the IDX ESG Leaders Index (IDXESGL), which serves as a benchmark for companies with relatively strong ESG ratings and low controversy levels, selected from firms with high liquidity and sound financial performance. The ESG ratings and controversy assessments underlying the index are developed by Morningstar Sustainalytics. In its evaluation, Sustainalytics measures ESG risk based on a set of core components known as Material ESG Issues (MEIs), which consist of 22 ESG-related topics representing key areas of environmental, social, and governance risk exposure that require specific management practices and oversight. A company’s overall ESG risk rating is derived from its exposure and management of these MEIs presented in Picture 1.1. This research examines five independent variables hypothesized to affect a company’s ESG performance. The board characteristics analyzed include board size, board independence, board overseas educational background, and board age diversity, along with firm value as the sole financial metric.



Picture 1.1 Sustainalytics Material ESG Issues (MEIs)
Source: Sustainalytics (2024a)

Beginning with the first board characteristic variable, board size refers to "the number of board members representing the board's decision-making and oversight capacity" (Ding et al., 2024). In the Indonesian corporate governance system, board structure is regulated under a two-tier board system consisting of separate boards of directors and commissioners. According to UU No. 40 Year 2007 on Limited Liability Companies (2007) "The Company's organs are the General Meeting of Shareholders, the Board of Directors, and the Board of Commissioners," indicating that companies are required to maintain separate managerial and supervisory boards, with each carrying distinct responsibilities within the company. The Board of Directors primarily performs managerial and operational functions, as "The Board of Directors is the Company's authorized and fully responsible organ for the management of the Company for the benefit of the Company, in accordance with the Company's purposes and objectives, and for representing the Company both inside and outside the courts in accordance with the provisions of the articles of association" (Law No. 40 of 2007 on

Limited Liability Companies, 2007). Meanwhile, the Board of Commissioners primarily performs supervisory and advisory functions, where "the Board of Commissioners is the Company's organ tasked with carrying out general and/or specific supervision in accordance with the articles of association and providing advice to the Board of Directors" (Law No. 40 of 2007 on Limited Liability Companies, 2007). Accordingly, this research measured board size by the total number of individuals collectively serving on the board of directors and board of commissioners.

In Indonesia's two-tier board system, a larger board size may strengthen both the managerial and supervisory capacities of a company. A larger board of directors provides greater capacity to formulate and execute corporate strategies, while a larger board of commissioners enhances the company's ability to supervise management and provide strategic advice. Furthermore, a greater number of board members enables clearer segregation of duties and more specialized responsibilities among directors and commissioners. Rather than overseeing a broad range of issues simultaneously, board members may focus on more specific areas of governance, operations, compliance, or stakeholder management. This specialization allows decision-making, operational execution, and monitoring activities to be conducted more effectively, thereby improving the board's ability to identify, evaluate, and respond to risks faced by the company.

More focused direction, operations, and monitoring may strengthen the company's ability to implement regulatory compliance, sustainable operational practices, and stakeholder-oriented decision-making. Improved oversight of compliance and internal controls may support the management of Corporate Governance, Business Ethics, and Product Governance risks by ensuring that management activities remain transparent, accountable, ethically conducted, and aligned with stakeholder interests. Stronger stakeholder representation may also improve the management of Stakeholder Governance and Community Relations risks by encouraging the consideration of broader stakeholder concerns and reducing potential conflicts between the company and its surrounding communities. In addition, specialized oversight of environmental initiatives may facilitate the implementation of resource efficiency programs, pollution control measures, carbon reduction strategies, water conservation practices, and circular economy principles that emphasize waste minimization and resource reuse, thereby strengthening the management of Emissions, Effluents and Waste, Carbon – Own Operations, Water Use – Own Operations, and Raw Material Use risks. Better monitoring of workforce policies and workplace conditions may also enhance the management of Human Capital and Occupational Health and Safety risks. Consequently, larger board size may strengthen environmental, social, and governance risk management across these Material ESG Issues, thereby reducing overall ESG risk and improving ESG Performance.

In their similar research, Jeyhunov et al. (2025) "board size was found to be a significant predictor of the ESG score of a firm." Supporting this, (Treepongkaruna et al., 2024) found that "board size is negatively associated with ESG controversies; that is, firms with large boards exhibit fewer ESG controversies". Meanwhile, research by Ding et al. (2024) found that board size "did not significantly impact ESG performance."

The following variable to be discussed, is board independence proxied by independent commissioners. Indonesia's constitution explains the mandated independent board member must be from the board of commissioners. However, in the Indonesian two-tier board system, the mandated independent board members are specifically positioned within the board of commissioners rather than the board of directors. According to UU No. 40 on Limited Liability Companies (2007), "the company's articles of association may stipulate the existence of 1 (one) or more independent commissioners and 1 (one) delegated commissioner. The independent commissioners referred to in paragraph (1) are appointed based on a resolution of the General Meeting of Shareholders (RUPS) from a party not affiliated with the major shareholder, members of the Board of Directors, and/or other members of the Board of Commissioner." Therefore, this research measured board independence as the proportion of independent commissioners on the commissioners' board.

Independent commissioners may strengthen corporate oversight by providing objective supervision that is less influenced by management or controlling shareholders. Their independence enables them to evaluate corporate decisions more critically and assess whether company actions disproportionately benefit certain parties at the expense of minority shareholders or other stakeholders. As a result, independent commissioners may encourage management to consider the interests of a broader range of stakeholders, including employees, customers, local communities, and minority investors, rather than focusing solely on short-term financial objectives. In carrying out this role, independent commissioners may also advocate for stronger compliance with regulations and governance practices designed to protect shareholder rights, ensure fair treatment, and maintain corporate accountability.

To safeguard minority shareholder and stakeholder interests, independent commissioners may encourage the implementation and effective operation of governance mechanisms such as conflict-of-interest policies, internal audit functions, whistleblowing systems, and regulatory compliance procedures. These mechanisms may strengthen the management of Corporate Governance risk by improving transparency, accountability, and the effectiveness of board oversight, while also supporting Stakeholder Governance through greater consideration of stakeholder interests beyond those of controlling shareholders. Their objective oversight may further contribute to the management of Business Ethics risk by discouraging unethical conduct, regulatory violations, fraud, and other actions that could harm stakeholders or the company's reputation. In addition, stronger oversight of corporate policies and compliance practices may indirectly support the management of Human Rights, Human Capital, and Occupational Health and Safety risks by encouraging fair treatment of employees, adherence to labor regulations, safe working conditions, and responsible workplace practices. Consequently, higher board independence may strengthen social and governance risk management, thereby reducing overall ESG risk and improving ESG Performance.

Board independence was found to be a “particularly influential factor, significantly enhancing ESG performance” (Ding et al., 2024). Similarly, Menicucci & Paolucci (2022) state their “findings indicate that board independence positively impacts ESG performance." On the other hand, Khornida et al. (2025) observed that "board independence has a significant negative effect on ESG performance."

The third variable analyzed is board overseas educational background, which refers to the "percentage of board members who have studied overseas" (Jeyhunov et al., 2025). They also stated that "an international student educated in a society with higher sustainability norms will be more familiar with and informed about sustainability issues." Based on this perspective, this research does not merely consider whether board members studied outside Indonesia, but also whether they were educated in countries with stronger sustainability implementation than Indonesia. To determine this, the research uses the SDG Index ranks and scores, an annual assessment of Sustainable Development Goals (SDG) progress covering all 193 United Nations member states measured by the Sustainable Development Solutions Network (SDSN), a non-profit organization launched by the United Nations to promote SDG implementation. Countries ranked above Indonesia in the SDG Index of the measured year are considered to have better sustainability implementation and practices. Therefore, this research measures board overseas educational background by the ratio of the total number of board members with overseas education backgrounds in countries with better sustainability practices to the total number of board members in the company during the measured year.

Board members who received higher education in countries with stronger sustainability implementation may possess firsthand experience with environmental, social, and governance practices that are more advanced than those commonly adopted in Indonesia. Beyond academic knowledge, studying and living in such environments may expose board members to sustainability-oriented regulations, stakeholder expectations, and corporate practices that have been developed to meet international ESG standards. As a result, these board members may possess a stronger understanding of how sustainability objectives can be integrated into corporate policies and operations, enabling them to recommend or establish company regulations, monitoring systems, and sustainability practices that achieve ESG objectives more effectively while remaining aligned with evolving global standards.

The knowledge and experience acquired from countries with stronger sustainability implementation may increase board awareness of governance and social standards relating to transparency, stakeholder engagement, labor rights, diversity and inclusion, responsible supply chain management, product responsibility, and corporate social responsibility initiatives. This may strengthen the management of Corporate Governance, Stakeholder Governance, Business Ethics, and Product Governance risks through the adoption of stronger governance frameworks, ethical compliance systems, stakeholder-oriented policies, and responsible product management practices. In addition, greater familiarity with internationally recognized labor and supply chain standards may support the management of Human Rights, Human Rights – Supply Chain, Human Capital, and Occupational Health and Safety risks by encouraging policies that promote fair labor practices, workplace safety, equal opportunity, and responsible supplier conduct. Board members with overseas educational backgrounds may also possess better understanding of the expectations, requirements, and sustainability preferences of foreign stakeholders, enabling them to design community development and CSR initiatives that align local community needs with broader international sustainability expectations. Such understanding may help companies develop programs that not only improve local welfare, but also strengthen the capabilities, knowledge, and economic participation of communities in ways that support sustainable business practices valued by global stakeholders. These efforts may foster mutually beneficial relationships between the company and surrounding communities while strengthening Community Relations and Access to Basic Services through greater economic opportunities, social development, and long-term stakeholder engagement. Consequently, higher board overseas educational background may strengthen social and governance risk management, thereby reducing overall ESG risk and improving ESG Performance.

Ding et al. found board overseas educational background to have a significant positive impact on a company's ESG performance. Consistent with this, Jeyhunov et al. (2025) observe "the overseas education of directors was found to be positively associated with ESG performance." Whereas Tanputra et al. (2023) had findings that opposed these, wherein they observed that "educational background does not exhibit a significant association with the quality of their sustainability reports."

The final board characteristic variable investigated is board age diversity. Jeyhunov et al. (2025) define age diversity specifically in terms of the dispersion of board member's ages and measure it using Blau's index. "Blau's index is a ratio of heterogeneity in a population and can take any number between 0 and 1. With 0 indicating that all directors belong to the same age group (minimum board diversity), whereas 1 indicating that all directors are from different age groups (maximum board diversity)."

Board age diversity may provide a balance between members who are more inclined to pursue new opportunities and members who prioritize stability, risk control, and organizational continuity. Age often reflects the social, economic, and technological environments in which individuals were raised, causing different generations to develop distinct perspectives regarding corporate responsibility, sustainability, and risk management. Younger board members may be more familiar with emerging sustainability trends, technological developments, and evolving stakeholder expectations, while older board members may contribute greater professional experience, strategic judgment, and understanding of corporate governance and regulatory compliance. The combination of these perspectives may enable boards to evaluate sustainability initiatives from multiple viewpoints, balancing innovation with practicality and long-term value creation with risk management.

This balance may strengthen the management of Corporate Governance, Stakeholder Governance, and Business Ethics risks by encouraging more comprehensive discussions before strategic decisions are made, reducing the likelihood of decisions that are either excessively conservative or unnecessarily risky. In addition, younger board members may be more aware of emerging sustainability solutions such as renewable energy adoption, wastewater treatment technologies, carbon reduction initiatives, and circular economy practices that improve resource efficiency and reduce environmental impacts. Meanwhile, older board members may provide practical experience regarding implementation challenges, regulatory requirements, financial implications, and stakeholder expectations, helping ensure that such initiatives are introduced in a measured and sustainable manner rather than through excessive risk-taking. The interaction between these perspectives may support the management of Emissions, Effluents and Waste, Carbon – Own Operations, Carbon – Products and Services, and Water Use – Own Operations risks by encouraging the adoption of sustainability innovations while maintaining operational stability and regulatory compliance. Consequently, greater board age diversity may strengthen environmental and governance risk management, thereby reducing overall ESG risk and improving ESG Performance.

EmadEldeen et al. (2025) observed “age diversity enhances ESG scores in medium- and high-sustainability companies.” Conversely, Jeyhunov et al. (2025) conducted similar research, where their “results showed that age diversity within boards negatively affects the overall ESG performance of a firm due to conflicting views and a lack of group cohesion.”

Lastly, the financial metric variable analyzed, firm value “primarily refers to the overall performance of a company, as measured by financial and market indicators encompassing various related dimensions such as firm performance and corporate performance within the scope of this study” (Li et al., 2024). Similarly to Priyanto & Suhandi (2023), this research utilized Tobin’s Q as a proxy for firm value, measured as “the ratio of the market value of the company's outstanding shares and debt divided by the replacement cost of the company's assets or book value.” “The calculation of Tobin's Q ratio is carried out to assess the extent of the company's effectiveness in managing its assets in order to create optimal market value” (Wahyuni, 2025).

Companies that effectively manage their assets and resources may be better able to produce high-quality products while utilizing available resources efficiently and controlling operational inefficiencies. Higher product quality may improve customer satisfaction and competitiveness, leading to stronger sales performance and profitability. Improved profitability may subsequently increase investor confidence in the company’s future prospects, encouraging greater demand for the company’s shares and contributing to a higher share price, thereby increasing the market value of equity.

At the same time, stronger products and operational performance may generate more stable cash flows and strengthen the company's ability to meet financial obligations. This may increase creditor confidence in the company's repayment capacity, improving its ability to obtain financing and maintain access to capital when growth opportunities arise. Through stronger market valuation and creditor confidence relative to the company's asset base, these conditions may contribute to higher firm value as measured by Tobin's Q. Accordingly, firms with higher Tobin's Q may be viewed as possessing stronger capabilities in managing assets and resources efficiently to generate market value and future growth opportunities. Such capabilities may be reflected through efforts to minimize resource consumption, reduce operational waste, optimize production processes, and extend the useful life of equipment and productive assets.

To achieve efficient resource utilization and sustain product quality, companies may seek to utilize raw materials more efficiently and prioritize materials that are durable, recyclable, reusable, or capable of being responsibly disposed of at the end of their lifecycle. Such practices may strengthen the management of Corporate Governance risk by demonstrating effective oversight of company resources and long-term value creation, while also supporting Business Ethics through responsible operational decision-making and consideration of the broader impacts of corporate activities. Furthermore, greater attention to product quality, material selection, and lifecycle management may strengthen Product Governance by ensuring products remain reliable and suitable for customer use throughout their lifecycle. These practices may also improve the management of Environment & Social Impact of Products and Services by reducing the environmental impacts associated with product production, use, and disposal. In addition, efficient material utilization and waste reduction may strengthen the management of Raw Material Use risk through more sustainable consumption of production inputs and reduced dependence on critical resources. Consequently, higher firm value may strengthen environmental and governance risk management, thereby reducing overall ESG risk and improving ESG Performance.

In their research, Meilantika et al. (2026) observed “firm value has a positive and significant effect on ESG disclosure, indicating that companies with high market value have a greater incentive to maintain their reputation and investor trust.” In contrast, Priyanto & Suhandi (2023) found “a negative relationship between Tobin's Q and ESG performance.”

This research is a replication of one conducted by Ding et al. (2024). The differences between this research and its reference are:

1) This research observes companies listed on the IDX ESG Leaders Index (IDXESGL) published by the Indonesia Stock Exchange (IDX) from 2021 to 2024, whereas Ding et al. (2024) examined listed companies from a different stock market (SSE & SZSE) within an earlier time frame. This adjustment ensures that the findings are relevant to Indonesian environment.

2) This research adjusts several variables used in Ding et al. (2024) to better suit the Indonesian context. For the dependent variable, this study uses the IDXESGL rating as a proxy for ESG performance in place of the Shanghai Huazheng ESG Rating used in the original study. As for independent variables, this research adds firm value, while replacing board gender diversity with board age diversity as an alternate measurement of board heterogeneity due to the low proportion of female board members in Indonesia, which may lead to insufficient variation and presumably distort the results. In accordance to Indonesia’s two-tier board system, this research also modifies the measurement of board independence with the proportion of independent commissioners rather than independent directors. Additionally, the measurement of board overseas educational background is extended to all board members with the added criteria that the overseas education must be acquired from countries with higher sustainability standards than Indonesia.

3) Unlike Ding et al. (2024), who employed panel data regression using STATA with fixed effects models, this study applies the same multiple regression method and hypothesis testing framework but is conducted using SPSS. Although the statistical software differs, the study maintains the panel data structure.

Based on the description that has been presented in the research background, the title of this research is "**The Impact of Board Characteristics and Firm Value on ESG Performance with Firm Size as a Control Variable (An Empirical Study of Non-Financial Companies Listed in the IDX ESG Leaders Index During 2021-2024).**"

1.2 Scope Limitation

This research is subject to the following limitations:

1) The research focuses on non-financial companies that have been included in the IDXESGL index during the period 2021-2024.

2) The dependent variable is ESG performance, proxied by ESG risk rating of non-financial companies included in IDXESGL by IDX. The independent variables include board size, board independence, board members' overseas educational background, board age diversity, and firm value proxied by Tobin's Q.

1.3 Problem Formulation

This research addresses the following problems:

1) Does board size exert a positive impact on ESG performance?

2) Does board independence exert a positive impact on ESG performance?

3) Does board overseas educational background exert a positive impact on ESG performance?

4) Does board age diversity exert a positive impact on ESG performance?

5) Does firm value, proxied by Tobin's Q, exert a positive impact on ESG performance?

1.4 Research Objectives

This research seeks to provide empirical evidence on:

1) Whether board size exerts a positive impact on ESG performance.
2) Whether board independence exerts a positive impact on ESG performance.
3) Whether board overseas educational background exerts a positive impact on ESG performance.
4) Whether board age diversity exerts a positive impact on ESG performance.
5) Whether firm value, proxied by Tobin's Q, exerts a positive impact on ESG performance.

1.5 Research Benefits

This research is expected to contribute the following benefits:

1) Companies

   This research may provide useful insights for companies that aim to improve their ESG performance. It emphasizes the potential role of board size, board independence, board overseas educational background, board age diversity, and firm value, and suggests that companies should focus on optimizing board composition through strategic alignment.

2) Investors

   This research may raise awareness regarding the implicated driving factors of ESG performance and understanding the role of board characteristics and firm value in supporting sustainable corporate practices, thereby improving the quality of investment decision-making.

3) Future Researchers

   This study may extend the theoretical framework of ESG by analyzing both the combined and individual effects of board characteristics, offering a more comprehensive lens to understand board and market influence, and fill a gap in literature by not isolating variables, but instead examining how they interact collectively to impact ESG performance.

1.6 Writing System

The preparation of this research is written systematically in five chapters, with the following content details:

CHAPTER I **INTRODUCTION**

This chapter introduces general and basic matters related to the content of the research, consisting of the research background, scope limitations, problem formulation, research objectives, research benefits, as well as the writing system of the research.

CHAPTER II **LITERATURE REVIEW**

This chapter presents and discusses the stakeholder and signaling theory concepts as well as prior research, develops hypotheses, then constructs a conceptual framework.

CHAPTER III **RESEARCH METHODS**

This chapter explains the research methodology applied in this study, including the general overview of the research object, research variables consisting of one dependent variable, five independent variables, and one control variable, data collection methods, sampling techniques, and data analysis methods. The study employs purposive sampling and utilizes IBM SPSS for data analysis. The data analysis process includes descriptive statistics, normality tests, classical assumption tests, and hypothesis testing using multiple regression analysis.

CHAPTER IV **DATA ANALYSIS AND DISCUSSION**

This chapter discusses the research process and results, including the data analysis stage, selection of research objects, up to the test results which answers the designed problem formulation.

CHAPTER V CONCLUSION AND RECOMMENDATION

This chapter concludes the research results, as well as expounds the research limitations and suggestions for future similar research.