

CORPORATE ESG PERFORMANCE AND CARBON REGULATION IN ACHIEVING SUSTAINABLE LOW-CARBON DEVELOPMENT

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Abstract:

This paper aims to look at how corporate ESG performance and carbon regulation contribute to achieving sustainable low-carbon development. Sustainable development is development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs. To support sustainable development, companies can improve their Environmental, Social, and Governance (ESG) performance at the corporate level. In this context, Environmental, Social, and Governance (ESG) has attracted great interest among policymakers, companies, and researchers, given that ESG investments are highly relevant to achieving emissions targets. However, little attention has been paid to country-specific carbon policies and how they relate to ESG performance and corporate carbon reduction. This paper looks at the relationship between ESG performance and carbon regulation in China and Indonesia. The research method used is a literature study relevant to the theme of corporate ESG performance and carbon regulation in achieving sustainable low-carbon development.

Keywords: ESG, ESG Performance, Carbon Regulation, Low Carbon

INTRODUCTION

Sustainable development is defined in the World Commission on Environment and Development report, *Our Common Future*, as development that meets the needs of current generations without compromising the ability of future generations to meet their own needs. The goal of sustainable development is a global initiative to create a better human life in social and economic aspects in synergy with the environment (Nareswari et al., 2023). To support sustainable development, companies can improve their Environmental, Social, and Governance (ESG) performance at the corporate level.

In this context, Environmental, Social, and Governance (ESG) has attracted great interest among policymakers, companies, and researchers, given that ESG investments are highly relevant to achieving emission targets (Wang et al., 2023).

Digging deeper into the ESG framework, it is important to understand how each of its components, i.e., Environmental, Social, and Governance make a unique contribution to carbon reduction and sustainable development. The environmental aspect of ESG emphasizes a company's role in managing natural resources and minimizing its ecological footprint, which directly impacts carbon emissions through practices such as energy efficiency, waste reduction, and sustainable resource utilization. Social aspects focus on the management of a company's relationships with employees, suppliers, customers and the communities in which it operates, which indirectly affect carbon emissions by promoting a broader culture of sustainability and responsible consumption. The governance aspect, which includes management structures, policies and procedures, ensures accountability and transparency in environmental and social practices, supporting carbon reduction goals through sustainable decision-making processes.



Extensive research has been conducted to examine how institutional factors, such as country-level legal systems and corporate governance differences, influence corporate ESG performance and practices. However, how country-specific carbon policies affect corporate ESG performance and carbon reduction has received much less attention (He et al., 2022). However, strict carbon regulations should encourage companies to be environmentally and socially responsible (Ye & Xu, 2023).

From a theoretical point of view, companies with high ESG ratings tend to be perceived as more stable as they are interested in long-term sustainable growth. ESG ratings may also serve as a dissemination mechanism for green finance policies (Zhang & Azman, 2023). In this case, countries with higher ESG ratings tend to place more emphasis on long-term growth by implementing regulations to ensure that companies act sustainably (Filippou & Taylor, 2021).

However, the relationship between corporate ESG performance and carbon regulation has not been fully established. Therefore, this paper aims to find out whether companies that implement good ESG performance with stricter carbon regulations can achieve sustainable low-carbon development.

METHODS

The type of research methodology used is a literature review relevant to the theme of corporate ESG performance and carbon regulation in achieving sustainable low-carbon development. The author uses secondary data through literature study by collecting various related supporting documents such as scientific articles, research journals, and literature books. All of this data is then put together to produce good writing results.

RESULT AND DISCUSSION

China's environmental regulatory policy is singular, dominated by environmental regulation with a command-and-control approach (Tang et al., 2020). In the early 21st century, China began to implement market-based environmental regulatory policies gradually. Compared to environmental regulation with a command-and-control approach that can burden companies in terms of costs, market-based environmental regulation can improve the efficiency of resource allocation and encourage corporate innovation (Tian et al., 2024). Based on these advantages, more and more scholars are paying attention to the ecological governance effectiveness of this type of environmental regulation.

In an effort to achieve peak carbon emission targets by 2030 and carbon neutrality by 2060, China has implemented various carbon regulations, including the Carbon Emissions Trading System (ETS), which is the largest carbon trading system in the world. The ETS covers the power generation sector and some heavy industries, such as steel, cement and petrochemicals. Companies in these sectors are required to monitor and report their GHG emissions, and buy or sell carbon emission permits to meet set emission quotas. China also applies a carbon tax on carbon dioxide (CO₂) emissions from some industrial sectors, such as petrochemicals, steel, and cement. In addition, emission standards imposed for some sectors are also stricter.

Research by Chen et al. (2022) found that companies operating in the green finance innovation reform pilot zone in China have better Environment, Social and Governance (ESG) performance compared to companies operating outside the zone. Meanwhile, research by Tian et al. (2024) shows that the carbon emissions trading scheme in China is effective in improving the ESG performance of companies. Companies enrolled in the emissions trading scheme showed improvements in the environmental aspects of their ESG performance, such as reduced pollutant emissions and increased



investment in green technology. Carbon regulations, such as emissions trading schemes, can be an effective tool to encourage companies to operate in a more environmentally friendly manner. These findings may be useful for policymakers in other countries who are considering implementing similar policies to address climate change and improve corporate sustainability.

ESG investments drive low-carbon transformation and corporate survival by focusing on environment, society, and governance performance rather than financial performance (Y. Li et al., 2023). The disclosure of carbon emissions aims to ensure long-term sustainability for the company. The company's outstanding image in sustainable development, including its investment in low-carbon energy options, can generate financial benefits for a wider group of stakeholders. The overall goal of the company is to maintain sustainable growth without harming the environment, as this will improve the economic performance and sustainability of the company itself (Noor & Ginting, 2022).

ESG investments in China resulted in a 0.246% reduction in CO₂ emissions and a 0.558% reduction in carbon emissions intensity, with different impacts in developed and underdeveloped regions (Cong et al., 2022). J. Li et al. (2022) mentioned that carbon regulation can:

- Encouraging investment in green technologies. Companies may invest in technologies that are more efficient and produce fewer emissions to comply with emission limits and reduce the cost of purchasing emission credits.
- Increase green innovation. The policy may encourage companies to innovate practices and technologies that reduce their carbon footprint.
- Increase environmental awareness. Carbon regulation can raise companies' awareness of the environmental impact of their activities and encourage them to operate in a more sustainable way.

China has shown significant progress in ESG (Environmental, Social, and Governance) performance in recent years. It can be seen from various aspects, such as massive renewable energy investment, commitment to achieve peak carbon emissions and carbon neutrality, implementation of comprehensive ESG regulations, and increasing investor and public awareness of ESG. However, behind this progress, there are still some challenges that need to be overcome, such as dependence on fossil fuels, air pollution that remains a serious problem, wide social disparities, lack of transparency and corporate accountability, and unified ESG standards.

Despite the challenges, China has great potential to become a global leader in transitioning to a low-carbon economy and achieving sustainable development. Sustained efforts from governments, companies and communities are essential to overcome these challenges and achieve a greener, more prosperous and climate-resilient future.

In Indonesia itself, with its large population and rapidly growing economy, it has an important role to play in global efforts to combat climate change. The transition to low-carbon development is key to achieving a sustainable future for Indonesia. In this context, Environmental, Social, and Governance (ESG) performance and carbon regulation play an important role in encouraging sustainable business practices and reducing greenhouse gas emissions.

According to research by Kurnia et al. (2021), investors and other stakeholders are increasingly considering environmental factors in making investment decisions, and companies that demonstrate a commitment to sustainability through disclosure of carbon emissions and other environmentally friendly practices can attract more investment and improve their reputation. Research by Hermawan et al. (2018) states that regulators, company size, and profitability affect the disclosure of carbon emissions in Indonesian manufacturing companies, while institutional ownership does not.



Carbon regulation in Indonesia is still under development, but several policies and regulations related to greenhouse gas emissions have been implemented, including:

- Law No. 16/2016 on the Stipulation of National Spatial Planning Regulations: This law requires local governments to develop Regional Spatial Plans (RTRW) that are aligned with low-carbon development goals.
- Government Regulation No. 46/2017 on the Application of Economic Instruments and/or Incentives for Waste Management: this regulates the application of economic instruments and/or incentives to encourage sustainable waste management.
- Minister of Environment and Forestry Regulation No. 75 of 2019 on Greenhouse Gas Emission Standards: This regulation sets GHG emission standards for various industrial sectors.

The government has also committed to achieving a net-zero emissions target by 2060. To achieve this goal, stronger and more comprehensive carbon regulations are needed, including carbon pricing that encourages companies to reduce their greenhouse gas emissions, emissions trading that creates a market for greenhouse gas emissions, encourages efficiency in emissions reduction, and stricter emissions standards for various industry sectors that encourage innovation and investment in low-carbon technologies.

The implementation of carbon regulation in Indonesia still faces challenges. Some of the challenges that need to be addressed include business readiness, where some businesses may not have sufficient capacity to fulfill greenhouse gas emission reporting requirements. In addition, the infrastructure for carbon trading, such as carbon exchanges, is still under development.

CONCLUSION

From the above discussion, good ESG performance can help companies reduce carbon emissions and contribute to low-carbon development. Strict carbon regulations can also encourage companies to act more environmentally and socially responsible. Countries with high ESG ratings typically place more emphasis on long-term growth and sustainability.

Further research is needed to understand the relationship between corporate ESG performance and carbon regulation. This study found that companies with good ESG performance and strict carbon regulations tend to be more successful in achieving sustainable low-carbon development. For example, in China, carbon emissions trading schemes have proven effective in improving corporate ESG performance and reducing pollutant emissions. In Indonesia itself, the implementation of carbon regulation in Indonesia is still facing challenges and still needs development.

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