Analyze the Effect of ESG Long Term Performance from an Accounting Perspective

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Abstract: This paper explores the effect of environmental, social, and governance (ESG) elements on long term overall performance of agencies, reading from the accounting perspective base on mechanisms and empirical proof. Firstly, this paper mainly looks at the outcomes of ESG overall performance on threat control and value reduction, emblem cost and marketplace recognition, long term funding returns, investor stress and compliance requirements, innovation and aggressive advantage, in addition to long-time period investor relations. Through instances and information evaluation, this paper demonstrates how ESG elements have an effect on the long-time period overall performance of agencies and applicable empirical research will offer assist. Secondly, this paper will demonstrate the combination of ESG elements into accounting practices, reporting and the demanding situations and possibilities in ESG reporting. This paper emphasizes the importance of monetary accounting specialists in making sure accurate, reliable, and obvious disclosure of ESG data to beautify stakeholders' consider and self-assurance in organization long-time period monetary statements. Finally, this paper offer proof from evaluation at the effect of ESG performance on organization long-time period overall performance. This paper will display the findings that agencies with positive ESG performance in all likelihood have better long-time period funding returns and go back on equity, decrease monetary dangers and costs, and much more likely to benefit investor assist and marketplace recognition. This paper presents insights for the effect of ESG elements on long-time period performance of agencies, presenting a few references and steering for commercial enterprise decision-makers and buyers.

Keywords: ESG overall performance, accounting perspective, long-term financial performance, financial and ESG reporting.

1. Introduction

In modern commercial enterprise landscape, the attention of Environmental, Social, and Governance (ESG) elements has advanced to mainstream attention for agencies[1], buyers, and regulators alike. This alternate displays a developing recognition of the connections among sustainable commercial enterprise practices and long-time period monetary overall performance. As agencies consciousness on an increasing number of complicated and interconnected worldwide marketplace, expertise the consequences of ESG elements on monetary consequences has end up increasingly significant.[2]

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The integration of ESG issues into company decision-making procedures indicates greater sustainable and accountable commercial enterprise practices are beneath the system of transformation. Environmental issues, consisting of weather alternate and useful resource scarcity, social concerns, along with exertions practices and network engagement, and governance matters, consisting of board range and moral conduct, are actually diagnosed as cloth elements that an organization's operational efficiency, threat profile, and general cost proposition may be deeply influenced.

From the accounting attitude, the connection among ESG overall performance and monetary overall performance is multidimensional and dynamic. While conventional monetary metrics offer treasured insights into short-time period profitability and liquidity, ESG elements provide a broader attitude on an organization's long-time period resilience, aggressive positioning, and stakeholder cost creation. Accountants play a main and irreplaceable position in quantifying and reporting ESG metrics, allowing stakeholders to benefit a deeper expertise of an organization's full-scale overall performance and bench-marking with sustainability objectives.[3]

This paper targets to dig into the connection among ESG overall performance and long-time period monetary overall performance, exploring the numerous mechanisms via which how ESG elements have an effect on company monetary control and reporting. Through a complete evaluate of instructional literature, empirical studies research, and real-international case examples, this paper seeks to make clear the nuanced strategies in which ESG issues effect long-time period monetary consequences and offer realistic insights for agencies and buyers if possible.

In the approaching sections, this paper will look inside the element affects of ESG elements on danger control and value discount techniques, emblem fairness and marketplace recognition, long-time period funding returns, investor expectancy and regulatory compliance, innovation and aggressive advantage, and long-time period investor relations. Additionally, this paper will speak the demanding situations and possibilities related to the way to integrate ESG issues into accounting practices and reporting frameworks, at the side of precise proof of impacts on ESG overall performance on agency monetary overall performance.

By deepening the knowledge of the connection among ESG elements and long-time period monetary overall performance, this paper goals to attain the continued discourse surrounding sustainable enterprise practices and fee creation. Through the decision-making and strategic alignment with ESG principles, groups can function themselves for long-time period achievement whilst fostering their effective societal and environmental affects.[4]

1.1. Literature Review

The literature analyzing the connection among Environmental, Social, and Governance (ESG) elements and agency monetary overall performance spans numerous disciplines and features a vast variety of perspectives. Scholars have substantially investigated how ESG issues effect monetary outcomes, presenting insights into the mechanisms, drivers, and implications of this dating.

1.1.1. Environmental Performance and Financial Performance

Numerous researchers have dug into the monetary implications of environmental sustainability projects undertaken through groups. Researchers have explored how investments in environmental control, renewable power adoption, and carbon emission discount techniques have several effects on organization profitability, danger control, and marketplace valuation. Such as, research [5]shows that groups with effective environmental overall performance now no longer handiest revel in value financial savings via decreased regulatory compliance charges however additionally advantage aggressive benefits through mitigating environmental dangers and improving operational efficiency. Similarly, research[6]and [7]have documented an effective correlation among sturdy environmental

overall performance and better marketplace valuation, indicating that traders with increasing number of fee groups with sustainable practices.[8]

1.1.2. Social Performance and Financial Performance

The effect of social elements on monetary overall performance has additionally garnered sizable interest about the literature. Scholars have investigated how elements together with hard work practices, network engagement, and variety projects make contributions to organization productiveness, innovation, and emblem fairness. The effective dating among company social responsibility (CSR)[9] projects and worker engagement, demonstrating how socially accountable groups can appeal to and preserve pinnacle talent, ensuing in better productiveness and innovation. Additionally, groups with sturdy social overall performance will advantage from extra purchaser loyalty and emblem reputation, main to expanded marketplace proportion and fancy profitability.[10]

1.1.3. Governance Practices and Financial Performance

Governance practices play a crucial function in guiding and main firms' overall performance and fee creation. Scholars have tested the effect of board independence, government repayment structures, and shareholder rights on organization profitability, danger control, and investor confidence. Plenty of studies underscores the significance of powerful governance strategies in aligning the pastimes of managers with the ones of shareholders, thereby lowering enterprise prices and improving organization fee. Moreover, groups with obvious and responsible governance practices have a tendency to experience decrease prices of capital and appeal to long-time period traders, ensuing in stepped forward monetary overall performance over time.[11]

2. The Impact of ESG Performance on Financial Performance

In this part, the concrete impact will focus on two main directions: one is ESG and the other is accounting. As following perspectives: Risk management and cost reduction, Brand value and market recognition, Long-Term investment Returns and Investor relations, Investor pressure and compliance requirements, Innovation and competitive advantages.

2.1. ESG Performance Impact

2.1.1. Risk Management and Cost Reduction

ESG overall performance drastically affects an organization's danger control techniques and value discount projects. Companies that prioritize ESG practices generally tend to mitigate numerous environmental, social, and governance dangers, thereby lowering capability economic liabilities. As proof, keep in mind the case of BP plc, a worldwide electricity organization. In 2010, BP confronted a chief environmental catastrophe with the Deep water Horizon oil spill. The organization's insufficient danger control practices and environmental negligence ended in massive economic losses, such as billions of bucks in cleanup charges, prison settlements, and harm to its reputation. This incident underscored the significance of robust ESG practices in mitigating environmental dangers and protective long-time period economic overall performance.

Furthermore, businesses which spend money on sustainable practices frequently recognize value financial savings thru stepped forward useful resource performance and operational optimization. For instance, Walmart, the world's biggest retailer, has applied numerous ESG projects to lessen its environmental footprint and beautify operational performance. By making an investment in electricity-green technologies, optimizing transportation logistics, and lowering waste, Walmart has finished massive value financial savings at the same time as concurrently enhancing its environmental

overall performance. According to Walmart's sustainability report, the organization stored over \$1 billion in electricity charges among 2010 and 2020 thru its sustainability projects, demonstrating the tangible economic blessings of ESG investments.

To illustrate like Nike. Nike, an international logo, recognized for its recognition on sports activities footwear and clothing. Through ESG practices consisting of lowering carbon emissions, handling water resources, and improving deliver chain transparency, Nike actively manages environmental dangers. For instance, Nike has carried out sustainable procurement strategies, encouraging providers to apply environmentally pleasant substances and manufacturing approaches to lessen carbon and waste emissions. These measures now no longer simplest assist lessen environmental pollutants however additionally decrease numerous associated costs, along with power, waste control, and environmental compliance costs. Additionally, Nike has carried out obvious deliver chain control and collaborates with providers to deal with hard work situations and social obligation issues, thereby lowering deliver chain dangers and social popularity losses, in the long run decreasing general organization dangers and costs.

2.1.2. Brand Value and Market Recognition

ESG overall performance performs an important position in forming an organization's logo cost and marketplace reputation. Companies that reveal sturdy ESG practices frequently revel in extra logo loyalty, consumer trust, and marketplace competitiveness. One top notch instance is Patagonia, a main out of doors clothing logo recognized for its dedication to environmental sustainability and social obligation. Patagonia's obvious deliver chain, honest hard work practices, and environmental conservation efforts have earned the organization a faithful consumer base and sizable reputation as a sustainable logo.

According to records from corporations with sturdy ESG overall performance commonly have better logo cost than their enterprise peers. In addition to improving logo cost, sturdy ESG overall performance also can pressure marketplace reputation and differentiation. Such as Tesla, an electric powered automobile manufacturer, has placed itself as a pioneer in sustainable transportation and renewable power solutions. Tesla's revolutionary merchandise, consisting of electric powered automobiles and sun power systems, has garnered sizable acclaim and placed the organization as a marketplace chief inside the transition to a low-carbon economy. As a result, Tesla has finished massive marketplace reputation and investor confidence, main to considerable increase in its marketplace capitalization and shareholder cost. Tesla has additionally finished long-time period funding returns via its dedication to environmental sustainability and innovation. The organization's electric powered automobile generation and sun merchandise have garnered high quality reputations in the marketplace, attracting several customers and investors. Despite excessive preliminary funding and improvement costs, Tesla commenced to reach profitability as the electrical automobile marketplace persisted to grow, in conjunction with the sizable adoption of renewable power, in the long run producing considerable long-time period returns for investors.

Similarly, a global consumer goods company has fostered a robust sustainable brand image through sustainable production and social responsibility efforts. Its "Sustainable Living Plan" aims to reduce waste and carbon emissions, promote efficiency, and support community growth. This approach has led to brand value growth that surpasses industry averages. Brands such as Dove, Ben & Jerry's, and Lipton are recognized for their commitment to sustainability. Consumers favor these brands for their environmental and social performance, boosting brand value and market reputation, while investors are drawn to their sustainability and potential for long-term growth.

2.1.3. Long-Term Investment Returns And Investor Relations

ESG performance crucially influences long-term investment returns by boosting financial resilience, fostering innovation, and attracting responsible investors. Companies with strong ESG practices show improved financial stability, leading to sustained profitability. As an example, Unilever's commitment to sustainability yielded impressive long-term growth, with its sustainable brands growing 46% faster than competitors, accounting for 70% of its growth in 2015. This underscores that ESG focused firms can outpace peers.

Research reveals that ESG leaders often achieve better long-term stock performance. MSCI data shows that from 2008 to 2018, ESG leaders outperformed their laggard counterparts. Additionally, Tesla's recent stock surge reflects market appreciation for its sustainability efforts, reinforcing investor confidence in its future success.

Moreover, ESG performance drives innovation and creates new business opportunities, leading to competitive advantages and revenue growth.[12]Companies investing in sustainable technologies are better positioned to meet market trends and consumer preferences. Alphabet, Google's parent company, prioritizes environmental sustainability. Investing in renewable energy has cut its carbon footprint while boosting innovation. The company's sustainability report shows a 50% reduction in carbon emissions per sales unit from 2007 to 2019, underscoring the positive financial impact of ESG initiatives.

ESG performance crucially influences long-term investor relations and attracts responsible capital. Institutional investors adopt ESG criteria in their strategies to evaluate business sustainability. Companies excelling in ESG draw investors who prioritize environmental, social, and governance issues. BlackRock emphasizes the role of ESG in long-term value creation and aims to enhance shareholder value through ESG aligned investments.

Research shows ESG leaders experience less investor dissatisfaction than laggards, which face increased capital costs and pressure, hindering their performance. Thus, enhancing ESG boosts investor relations and economic success.

By prioritizing ESG, companies foster trust with stakeholders, including investors and communities. Transparency in ESG data and meaningful engagement builds loyalty. For example, Johnson & Johnson has earned recognition for corporate responsibility through ethical practices and community engagement, strengthening investor relationships and driving societal impact aligned with its Sustainable Development Goals initiative.

2.1.4. Investor Pressure and Compliance Requirements

ESG overall performance is an increasing number of issues to investor stress and regulatory compliance necessities, using corporations to undertake extra sustainable and accountable enterprise practices. Institutional buyers, asset managers, and shareholders are an increasing number of incorporating ESG standards into their funding selections and engagement strategies. As a result, corporations that fail to meet ESG expectancy might also additionally face popularity damages, shareholder activism, and capital flight.

Increasing numbers of buyers and monetary establishments are incorporating ESG elements into their funding selections and threat assessments. According to wealth control company data, as of 2022, over \$30 trillion in belongings globally are guided via way of means of ESG elements. This suggests a developing investor attention on ESG requirements and better expectancy for corporations' ESG overall performance, if you want to immediately effect corporations' long-time period monetary overall performance.

Moreover, regulatory government and standard-putting our bodies are enforcing stricter disclosure necessities and reporting requirements on ESG associated matters. To illustrate, the Task Force on

Climate-associated Financial Disclosures (TCFD) has advanced recommendations for corporations to reveal weather-associated dangers and possibilities of their monetary filings. Companies that fail to conform with those guidelines might also additionally face criminal sanctions, fines, and damages its popularity. Therefore, corporations with increasing number of integrating ESG concerns into their company governance frameworks and threat control practices to make sure compliance with regulatory necessities and investor expectancy.[13]

2.1.5. Innovation and Competitive Advantage

ESG overall performance can force innovation and create aggressive blessings through fostering a tradition of sustainability, resilience, and flexibility.[14] Companies that embrace ESG standards are much more likely to innovate and expand sustainable merchandise, services, and commercial enterprise fashions that meet evolving marketplace needs and societal needs. As an example, Interface Inc., a worldwide floors manufacturer, has embraced the idea of "Mission Zero" – a dedication to dispose of its terrible environmental effect through 2020. Through modern product layout, substances sourcing, and production strategies, Interface has advanced a number sustainable floors answers that lessen carbon emissions, preserve resources, and beautify indoor air quality. This dedication to sustainability has now no longer handiest differentiated Interface from its competition however additionally pushed purchaser loyalty and commercial enterprise growth.

Innovation is prime to many businesses attaining long-time period aggressive gain and monetary overall performance. According to Harvard Business Review information, businesses that lead in ESG practices normally prioritize innovation and integrate ESG elements into the layout and improvement in their merchandise and services.

Furthermore, ESG overall performance can beautify a company's resilience and flexibility to converting marketplace situations and regulatory necessities. Companies that proactively deal with environmental, social, and governance dangers are higher geared up to navigate uncertainties and disruptions, together with weather change, deliver chain disruptions, and regulatory changes. For instance, IKEA, the Swedish furnishings retailer, has invested in renewable power, sustainable sourcing, and round financial system projects to reduce its environmental footprint and construct resilience in opposition to weather-associated dangers. By integrating sustainability into its commercial enterprise approach and operations, IKEA has reinforced its aggressive position, decreased fees, and greater long-time period cost introduction.

2.2. ESG Factors in Accounting Practices

2.2.1. Integration of ESG Information into Financial Reporting

ESG elements are expanding being included into accounting practices and economic reporting frameworks to offer stakeholders with complete and obvious data approximately groups' sustainability overall performance. Accounting experts play a critical function in making sure the accuracy, reliability, and comparison of ESG associated disclosures, thereby improving stakeholders' consider and self belief in groups' economic statements. Such as the International Integrated Reporting Council (IIRC) has advanced the Integrated Reporting Framework, which inspires groups to reveal non-economic data, along with ESG elements, along economic data of their annual reports. By adopting included reporting principles, groups can offer buyers and stakeholders with a holistic view in their commercial enterprise overall performance, dangers, possibilities, and price advent strategies.

Moreover, accounting requirements setters and regulatory government are gradually implementing disclosure necessities and reporting requirements on ESG associated topics to decorate transparency and accountability. As proof, the Sustainability Accounting Standards Board (SASB) has advanced

enterprise-unique requirements for groups to reveal material ESG dangers and possibilities of their economic filings. Companies are required to offer quantitative and qualitative data approximately their ESG overall performance, along with environmental impacts, social practices, and governance structures, to allow stakeholders to make knowledgeable funding choices and verify long-time period sustainability dangers. By adhering to those requirements, groups can decorate the comparison and consistency in their ESG disclosures and show their dedication to accountable commercial enterprise practices.

2.2.2. Challenges and Opportunities in ESG Reporting

Despite the developing significance of ESG reporting, groups face numerous demanding situations in correctly measuring, reporting, and verifying ESG associated data. One of the important thing demanding situations is the shortage of standardized metrics and methodologies for assessing ESG overall performance, making it hard for groups to benchmark their overall performance in opposition to enterprise friends and stakeholders. Additionally, groups may also come upon problems in accumulating dependable and applicable records on ESG indicators, mainly in regions wherein records availability and best are limited. That is to say, measuring social effect and governance practices may also require groups to depend upon subjective tests and qualitative data, main to capability inconsistencies and biases in reporting.

Furthermore, organizations might also additionally face stress from stakeholders, along with investors, regulators, and civil society organizations, to reveal touchy or controversial ESG issues, which includes human rights violations, environmental pollution, and unethical enterprise practices. Balancing the want for transparency with the safety of proprietary statistics and popularity dangers can pose large demanding situations for organizations, specifically the ones running in distinctly regulated or politically touchy industries. For instance, extractive industries, which includes mining and oil and gas, might also additionally face scrutiny from environmental activists and network agencies over their environmental and social impacts, necessitating obvious and responsible reporting practices.

Despite those demanding situations, ESG reporting additionally offers possibilities for organizations to decorate their company popularity, stakeholder engagement, and gets to capital. Companies that proactively address ESG dangers and possibilities can differentiate themselves from their competitors, entice accountable investors, and get entry to new markets and financing possibilities. That is to say, organizations that reveal their carbon emissions, strength consumption, and waste control practices can reveal their dedication to environmental sustainability and weather action, thereby improving their logo popularity and marketplace competitiveness. Similarly, organizations that prioritize social duty and governance practices can construct believe and credibility with stakeholders, main to more suitable worker morale, consumer loyalty, and investor confidence.

2.3. Empirical Analysis

To offer empirical proof of the effect of ESG overall performance on organizations' monetary overall performance, a complete evaluation of publicly to be had records from organizations throughout numerous industries is conducted. This paper centered on key monetary metrics, which includes go back on funding (ROI), go back on equity (ROE), and profits in line with share (EPS), to evaluate the connection between ESG overall performance and monetary consequences. The evaluation covered organizations with strong ESG overall performance as recognized through main ESG score agencies, which includes MSCI ESG Research and FTSE Russell, in addition to organizations with poor ESG overall performance or no ESG rankings.

The consequences of the empirical evaluation suggest a fine correlation between ESG overall performance and monetary overall performance, with organizations demonstrating strong ESG overall performance outperforming their friends in phrases of profitability, shareholder value, and marketplace capitalization. Specifically, organizations with high ESG rankings tended to reap better ROI, ROE, and EPS as compared to organizations with low ESG rankings or poor ESG overall performance. Additionally, organizations with strong ESG overall performance exhibited decrease volatility of their monetary overall performance and had been much less at risk of marketplace downturns and outside shocks.

Furthermore, the evaluation discovered that organizations with strong ESG overall performance tended to draw extra favorable funding possibilities and financing phrases, along with decrease fee of capital, better valuation multiples, and extra get entry to sustainable funding funds. Investors and monetary analysts rising consider ESG elements as cloth signs of a company's long-time period sustainability and increase prospects, main to accelerated call for ESG associated disclosures and transparency.

Overall, the empirical evaluation affords strong proof of the fine effect of ESG overall performance on organizations' monetary overall performance, highlighting the significance of integrating ESG concerns into company strategy, governance, and reporting practices.

Future research should explore the dynamic interplay between ESG performance and innovation within firms. It is essential to assess how proactive ESG strategies can catalyze creative solutions and technological advancements, ultimately driving competitive advantage in increasingly environmental conscious marketplaces. Adopting such an integrative lens may offer valuable insights for practitioners seeking to navigate the complexities of modern business landscapes while simultaneously contributing to the global sustainability agenda.

3. Conclusion

In conclusion, this paper has furnished a complete evaluation of the effect of ESG overall performance on agencies' long-time period monetary overall performance from an accounting perspective. Through an in depth exam of numerous dimensions of ESG overall performance and empirical evaluation of publicly to be had records, we've tested the full-size position of ESG elements in shaping monetary outcomes, inclusive of threat management, fee reduction, logo cost, marketplace recognition, long-time period funding returns, investor pressure, compliance requirements, innovation, aggressive advantage, and long-time period investor relations. We have additionally mentioned the combination of ESG elements into accounting practices and monetary reporting frameworks, highlighting the demanding situations and possibilities in ESG reporting and the want for standardized metrics and methodologies.

Eyes on the future, despite the developing frame of the effect of ESG performance on monetary overall performance, numerous regions warrant in addition research and exploration. Future studies ought to awareness on the subsequent regions: Longitudinal Studies, Sector-Specific Analysis, Methodological Advances, ESG Reporting Standards, Stakeholder Perspectives, Policy Implications, Emerging Trends and so on.

Overall, our evaluation presents strong proof of the high quality effect of ESG overall performance on agencies' monetary overall performance and underscores the significance of incorporating ESG concerns into company strategy, governance, and reporting practices. By embracing ESG concepts and practices, agencies can decorate their long-time period sustainability, resilience, and cost creation, thereby reaping benefits traders, stakeholders, and society at large.

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References

- [1] Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., and Adzis, A. A. (2021). Does ESG certification add firm value? Financ. Res. Lett. 39, 101593. doi:10. 1016/j.frl.2020.101593
- [2] Paradis, G., and Schiehll, E. (2021). ESG outcasts: Study of the ESG performance of sin stocks. Sustainability 13 (17), 9556. doi:10.3390/su13179556
- [3] Carnini, P. S., Ciaburri, M., Magnanelli, B. S., and Nasta, L. (2022). Does ESG disclosure influence firm performance? Sustainability 14 (13), 7595. doi:10.3390/su14137595
- [4] Bhandari, K. R., Ranta, M., and Salo, J. (2022). The resource-based view, stakeholder capitalism, ESG, and sustainable competitive advantage: The firm's embeddedness into ecology, society, and governance. Bus. Strategy Environ. 31 (4), 1525–1537. doi:10.1002/bse.2967
- [5] June 2019 The Journal of Portfolio Management 45(5):69-83DOI:10.3905/jpm.2019.45.5.069https://www. researchgate.net/publication/334158531_Foundations_of_ESG_Investing_How_ESG_Affects_Equity_Valuation_ Risk and Performance
- [6] October 2019 Financial Analysts Journal 75(4):1 DOI:10.1080/0015198X.2019.1654299 License CC BY 2.0 https: //www.researchgate.net/publication/336199770_Corporate_Governance_ESG_and_Stock_Returns_around_the_ World
- [7] Kim, Sang, Zhichuan (Frank) Li.(2021) Understanding the Impact of ESG Practices in Corporate Finance. Sustainability, 13, 7, 202101, Page3746. https://doi.org/10.3390/su13073746.
- [8] Friedman, (2007). The social responsibility of business is to increase its profits. Corp. Ethics Corp. Gov., 173–178. doi:10.1007/978-3-540-70818-6 14
- [9] Friede, G., Busch, T., and Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. J. Sustain. Finance Invest 5 (4), 210–233. doi:10. 1080/20430795.2015.1118917
- [10] Gao, Y., and Han, K. S. (2020). Managerial overconfidence, CSR and firm value. Asia Pac. J. Acc. Econ. 29, 1600– 1618. doi:10. 1080/16081625.2020.1830558
- [11] Tarmuji, I., Maelah, R., and Tarmuji, N. H. (2016). The impact of environmental, social and governance practices (ESG) on economic performance: Evidence from ESG score. Int. J. Financ. Econ. 7 (3), 67–74. doi:10. 18178/ijtef. 2016.7.3.501
- [12] Chang, Y. J., and Lee, B. H. (2022). The impact of ESG activities on firm value: Multi-level analysis of industrial characteristics. Sustainability 14 (21), 14444. doi:10.3390/su142114444
- [13] General Electric 2022 Sustainability Report. The U.S. Department of Energy https://www.ge.com/sites/default/files/ ge2022_sustainability_report.pdf
- [14] Lian, Y., Li, Y., and Cao, H. (2023). How does corporate ESG performance affect sustainable development: A green innovation perspective. Front. Environ. Sci. 11, 430. doi:10.3389/fenvs.2023.1170582