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The Importance of a Chief Sustainability Officer (CSO) in Multinational and State-Owned Enterprises

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Abstract

This study examines the function of chief sustainability officers (CSOs) in state-owned enterprises (SOEs) and multinational enterprises (MNEs) doing business in Indonesia, with a focus on their initiatives to achieve net-zero carbon dioxide (CO₂) emissions by 2050. This project highlights the value of having a Chief Sustainability Officer (CSO) in Indonesian MNEs and SOEs. These organizations must acknowledge that they currently lack a CSO at the director level and must assign a CSO to their organizational structure. Strategic leadership, regulatory compliance, stakeholder engagement, innovation and technology adoption, risk mitigation, cost savings, carbon accounting and reporting, and competitive advantage are critical strategic CSOs for Indonesian MNEs and SOEs beyond guaranteeing sustainability. Seventy-six sustainability reports from State-Owned Enterprises (SOEs) and Multinational Enterprises (MNEs) operating in Indonesia listed on the Indonesia Stock Exchange for 2021–2022 are the documents studied in the approaches. The results indicate that a critical prerequisite for long-term development and a way to meet sustainability goals is for Indonesian MNEs and SOEs to designate a CSO. The CSO is essential in promoting sustainable practices, reducing risks, ensuring compliance, and enhancing the company's image in a society that is becoming more environmentally conscious. Establishing and strengthening the CSO role should be a top priority for these organizations if they want to reach their goal of being net-zero emitters of CO₂ by 2050.

Keywords: Chief Sustainability Officer (CSO); Indonesian Multinational Enterprises (MNEs); State-Owned Enterprises (SOEs); Net-Zero Emitters; Carbon Trading.

1. Introduction

The top post now held by a General Manager (GM) rather than a director, the Chief Sustainability Officer (CSO) job, has not been taken into consideration by Indonesian Multinational Enterprises (MNEs) or State-Owned Enterprises (SOEs). The GM is essential to an organization's success in achieving the Sustainable Development Goals (SDGs), and the President, Director, or CEO signs the sustainability report [1]. The Sustainable Development Goals (SDGs), announced by the United Nations, are 17 worldwide objectives designed to tackle some of the most critical issues facing

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the globe today, such as poverty, inequality, climate change, environmental degradation, and economic growth. Sustainability and environmental, social, and governance (ESG) policies play a more significant role in business risk management and growth strategies. As a revenue generator and strategist, the CSO has grown in importance. They strive to diversify their workforce, set aggressive targets for net-zero and carbon emissions, develop innovative goods for the circular economy, coordinate critical initiatives with the UN Sustainable Development Goals, and much more. Additionally, they standardize reporting to other stakeholders, investors, and the SEC. CSOs explain how their companies' leading products and services positively influence the environment and society. Revenue increases while addressing specific leadership, regulatory, stakeholder, and change management issues. Based on in-depth interviews with chief sustainability officers (CSOs) of Fortune 500 companies like Amazon, Coca-Cola, and Procter & Gamble, as well as globally recognized brands like IKEA and Netflix, conclusions were drawn [2].

CEO and President of Ceres, Mindy Lubber, stated that chief sustainability officers play a critical role in assisting companies in transitioning to a more sustainable and equitable global economy. Through conversations with prominent sustainability professionals, Pagitsas (2022) [2] eloquently demonstrates the crucial role of bridging gaps and eradicating the division between senior leadership, sustainability teams, and "traditional" business operations to create transformative change inside their organizations [3]. CSOs are essential to their companies' ability to traverse this shifting terrain as the urgency, scope, and complexity of the problems caused by the climate disaster increase. They favor laying out a precise plan and allocating funds to bring about meaningful change that will yield long-term benefits. CSOs are responsible for identifying the most critical issues, providing thought leadership and strategic direction, and supporting the company's planning and governance procedures. The Chief Sustainability Officer (CSO) is now the organization's "sense-maker in chief." But they can only play that role when appropriately seated at the table. Because of this, not enough CSOs have sufficient access to the board and lack the ability to affect the sustainability shift [4]. Setting and meeting objectives for green innovation is challenging. Many scholars have examined the key variables that affect green innovation. The research indicates that there will be a more significant impact of CSO variety on green innovation [5]. The sustainability report's decision to have external assurance is strengthened by using the Global Reporting Initiatives (GRI) criteria and releasing combined information. The results illustrate how a CSO improves sustainability reports and transparency [6]. One tactic to satisfy the organization's demand to raise sustainability awareness is establishing a sustainability committee as part of the corporation's corporate governance [7, 8].

Businesses can also meet the need to enhance their sustainability reporting by appointing a chief sustainability officer (CSO) on the board [9]. Organizations must adapt by creating or growing functional areas to support corporate responsibility and sustainable business practices. Business jobs for chief sustainability officers may come under scrutiny as sustainability becomes the new norm. However, a process and accountability are needed to ensure the SDGs. Organizational reform still needs to happen in large quantities. It must be actively controlled to meet carbon-zero targets and create a closed-loop manufacturing process that minimizes waste and protects resources [10].

The following guidelines and duties apply to GMs in accomplishing SDG goals: Goal Alignment: To ensure that the firm's sustainability and CSR strategies are in line with the specific SDGs that are relevant to its operations and industry, the organization must identify and prioritize the most critical and relevant SDGs. SDG-related goals and targets can be incorporated into the organization's strategic plans by working with senior leadership through integration into a system that includes the SDGs in the core business strategy and decision-making processes [11].

Engaging key stakeholders, such as workers, clients, investors, suppliers, NGOs, and governmental organizations, is crucial to stakeholder engagement. These stakeholders can help develop effective collaboration and engagement strategies to advance the SDGs by understanding their expectations. Monitoring the gathering, evaluation, and reporting of pertinent sustainability data by SDG indicators and reporting frameworks; tracking the development of robust monitoring and reporting systems to monitor progress toward SDG targets. Setting and assessing goals that establish precise, quantifiable objectives in line with certain SDGs and periodically tracking advancement toward these objectives by creating and applying key performance indicators (KPIs) and metrics to report successes and setbacks [12].

To identify potential partners and collaborate on projects that advance SDG attainment, strategic alliances and partnerships with other organizations, non-governmental organizations, and government agencies are needed to solve SDG concerns collaboratively. Thought Leadership and Advocacy: Proponents of the SDGs' importance in the sector and organization exchange best practices and show thought leadership at conferences, open forums, and industry gatherings [13]. The development of sustainable goods, services, and business models that support SDG targets and stimulate R&D to solve particular SDG-related issues is fueled by innovation and solutions. Risk management is the process of identifying and controlling environmental, social, and governance (ESG) hazards that may have an impact on an organization's capacity to meet sustainable development goals (SDGs) and to create plans to reduce such risks and foster resilience [14].

In addition to encouraging active participation in creating employee programs and activities about SDG awareness, volunteerism, and skill development, employee engagement engages and educates staff members about the

organization's commitment to the SDGs. Transparency and reporting: To ensure transparency in SDG endeavors, stakeholders are informed regularly about the organization's progress and obstacles in creating and disseminating SDG-related reports that offer valuable insights into its sustainability performance. Continuous improvement promotes a culture of continuous improvement by routinely assessing and improving tactics to increase SDG alignment and effect and to lead efforts to modify strategies based on lessons learned and new sustainable trends [15].

This research suggests that the difference between having CSOs in Indonesian Multinational Enterprises (MNEs) and State-Owned Enterprises (SOEs) and maintaining GM positions with duties as high as Director level is necessary to help guide their organizations toward achieving SDG targets and contributing to a more sustainable and equitable world. GM positions must adhere to these rules and fulfill their responsibilities. Such extensive regulations require a Chief Sustainability Officer [16].

2. Literature Review

2.1. The Role of a Chief Sustainability Officer (CSO)

The role of a Chief Sustainability Officer (CSO) can be derived from several studies related to the SDGs and their related fields. A survey of 4863 international firms that examined the role of the chief executive officer, a role in environmental innovation, and the impact of this strategy on financial performance, the use of clean technologies, ecological manufacturing processes, and the design, manufacture, and commercialization of environmentally sustainable products necessitates that CEOs wield more power to support projects that do not yield a higher return in the short and medium term, significantly reversing the negative economic impact of eco-innovation in the fourth and fifth years after it is adopted. As a result, this study supports the notion of a "bright side" of CEO authority regarding business sustainability [17].

Hussain et al. (2023) investigated the impact of CEO ability on business environmental sustainability information disclosure and found a positive relationship between CEO ability and corporate SDGI sustainability information disclosure. Therefore, companies with more capable CEOs will tend to disclose more corporate environmental sustainability information. In addition, knowledge regarding business environmental sustainability will correlate with the CEO's abilities. Meanwhile, age and career concerns negatively affect CEO ability [18]. The current study presents empirical evidence on how the chief executive officer (CEO) tenure affects all listed non-financial Chinese enterprises' corporate social and environmental disclosures (CS&ED). The data indicated that CEO tenure has a detrimental impact on CS&ED. Our study shows that CS&ED grows earlier in a CEO's service tenure than later in their service tenure, indicating the presence of a non-linear, inverted U-shaped relationship between CEO tenure and disclosure practices [19].

Referring to the above role of the CSO facing corporate social and environmental responsibility of a company, we may derive the position of a Chief Sustainability Officer (CSO) as the extent of the CEO's duties and several critical factors as a commitment to achieve the United Nations Sustainable Development Goals as follows:

CSOs assist in aligning the company's strategies and operations with these global sustainability objectives, such as deforestation, pollution, and social inequality; they lead in addressing these challenges and mitigating risks. CSOs ensure companies comply with local laws and regulations, reducing the risk of legal issues and reputational damage due to the increasing severity of compliance with environmental and sustainability rules and regulations. CSOs identify opportunities for resource optimization and green technology because resource optimization and sustainability initiatives will improve efficiency, reduce costs, and increase profitability [20].

CSOs encourage innovation, differentiation, development, and promotion of a positive brand image. Through sustainable practices, they can improve the company's brand reputation and attract socially concerned customers. CSOs will risk managing climate change, supply chain disruptions, and reputational threats, which will all impact company operations, so identifying and mitigating hazards by involving various stakeholders, such as government agencies, NGOs, communities, and customers, is critical to achieving that goal. Sustainable business operations, with sustainable products and services, can compete more competitively in the global market [1].

CSOs are also tasked with creating a culture of sustainability within their organizations and building positive relationships with local communities, which is essential for engaging communities as part of corporate participation as responsible citizens. CSOs maintain relationships with investors, considering the current trend where more investors are investing. And more investors are attracted to companies with strong sustainability practices, are socially responsible, and leverage investor relationships in long-term strategies. Civil Society Organizations plan for sustainable growth and resilience in facing future challenges through effective corporate governance integrated with decision-making processes involving employee morale, respect for the company, and participation in social responsibility [21].

The role of a Chief Sustainability Officer in an Indonesian multinational company is vital for aligning the organization's business practices with sustainability principles, complying with regulations, managing risks, and seizing

opportunities. By prioritizing sustainability and having a CSO at the helm, the company can thrive in the long run while contributing positively to the environment and society in Indonesia and beyond [22].

Several individuals have been recognized for their exceptional work as Chief Sustainability Officers (CSOs) in various corporations who have made significant contributions to sustainability [23]:

- **Nancy Mahon - Estée Lauder Companies:** Nancy Mahon is the Senior Vice President of Global Corporate Citizenship and Sustainability at Estée Lauder Companies. She has played a crucial role in the company's sustainability efforts, focusing on responsible sourcing, renewable energy, and efforts to combat climate change.
- **Bruno Sarda - CDP (formerly with NRG Energy):** Bruno Sarda, formerly the Chief Sustainability Officer at NRG Energy, is known for advancing sustainability within the energy industry. He played a crucial role in NRG's transition to cleaner energy sources and was recognized for contributing to the company's sustainability initiatives.
- **Kathy Nieland - General Motors:** Kathy Nieland, the Executive Director of Global Environmental Compliance and Sustainability at General Motors, has been instrumental in GM's commitment to electrification and sustainability. She has overseen initiatives to reduce the company's carbon footprint and promote sustainable transportation.
- **Barbara Freitag - Unilever:** Barbara Freitag, the Global Vice President of Corporate Responsibility at Unilever, has been a driving force behind Unilever's Sustainable Living Plan. Her work focuses on sustainable sourcing, reducing environmental impact, and promoting responsible consumption.
- **Dave Stangis - Campbell Soup Company (formerly with Intel):** Dave Stangis, formerly the Chief Sustainability Officer at Intel and later at Campbell Soup Company, is recognized for his leadership in corporate sustainability. He has been a strong advocate for transparency and sustainable business practices.
- **Erin Meezan - Interface:** Erin Meezan serves as the Chief Sustainability Officer at Interface, a global flooring company. She has been a trailblazer in sustainability, leading Interface's Mission Zero commitment to eliminate its negative environmental impact by 2020.
- **Jennifer Silberman - Target:** Jennifer Silberman, formerly the Chief Sustainability Officer at Target, played a crucial role in Target's sustainability efforts, including responsible sourcing, reducing waste, and promoting diversity and inclusion.

These CSOs have demonstrated leadership, innovation, and dedication to advancing sustainability within their organizations. They have substantially contributed to corporate sustainability strategies, helping their companies reduce environmental impact, improve social responsibility, and enhance overall sustainability performance. Their work serves as an inspiration for others in the field of sustainability (Figure 1).

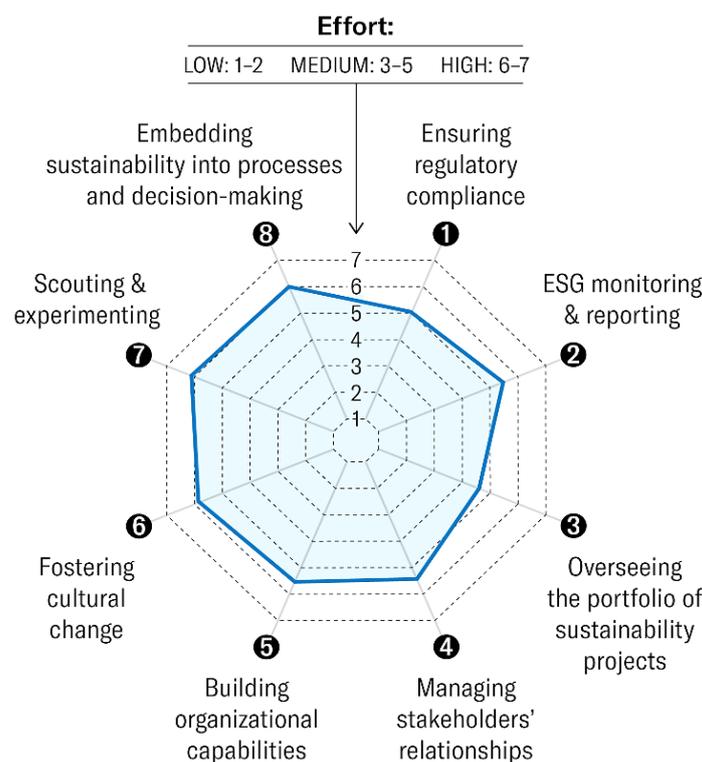


Figure 1. CSO Roles [24]

2.2. Chief Sustainability Officer (CSO) and Environmental, Social, and Governance (ESG)

Managing an organization's Environmental, Social, and Governance (ESG) concerns falls within the purview of the Chief Sustainability Officer (CSO). For all stakeholders—investors, consumers, workers, and regulators—ESG factors are becoming increasingly significant. The CSO can create a plan that complies with ESG goals. Aligning the company's strategy with ESG aims and objectives is the responsibility of the CSO—Assimilation into Corporate Strategy. Ensure the organization's corporate strategy, decision-making procedures, and long-term planning consider environmental factors. Key stakeholders, including investors, clients, staff, regulators, and community organizations, who are interested in the company's ESG performance will be identified through stakeholder engagement. Engage stakeholders in dialogue by using efficient channels to learn about their expectations and worries about ESG [20].

Manage the data collection and analysis for ESG-related reporting, ensuring the information is accurate and trustworthy. Regularly publishing information about the company's ESG performance in sustainability reports, annual reports, and other pertinent publications can help to foster openness. Ensure all legislation, frameworks (such as GRI, SASB, and TCFD), and standards for ESG reporting are followed. Assess ESG Hazards. Determine which hazards to the company's operations, reputation, or financial performance are social, environmental, and governance issues. Create plans and programs to reduce the risks associated with ESG and boost resilience [25].

Implement environmental impact reduction measures, such as waste reduction, energy efficiency programs, and sustainable sourcing methods, to lessen the company's environmental impact. Encourage eco-friendly activities—social responsibility via diversity and inclusion—such as cutting carbon emissions and switching to renewable energy sources. Promote inclusivity and diversity inside the company to guarantee fair hiring and career-growth possibilities. Encourage the health, safety, and work-life balance of your team members. Get involved in your neighborhood to foster goodwill and support neighborhood development projects [26].

Assure moral and open governance procedures, clear of conflicts of interest and evil behavior. Promote diversity in senior leadership roles and on the board of directors. Create and manage ethics and compliance programs. Using ESG Investments to Draw in Conscientious Investors: To draw in ethical investors who place a high value on sustainability, emphasize the company's adherence to ESG principles: constant Measurement and Assessment Improvement. Analyze the company's ESG performance regularly compared to industry standards and set goals. Based on performance outcomes and new ESG trends, modify ESG activities and strategies [27].

Employee Engagement in Sustainability and training to inform staff members about the company's commitment to sustainability and ESG principles. Employee participation in ESG activities and active idea contribution are encouraged. Partnerships for engagement with industry groups and NGOs are also encouraged. To maximize joint efforts in tackling ESG issues, establish alliances with industry associations, non-governmental organizations (NGOs), and other stakeholders. Keep up with new developments in ESG trends, technology, and best practices to stimulate innovation and raise ESG standards. The CSO ensures that the company's environmental, social, and governance (ESG) initiatives are incorporated into its core business operations and positively influence the company's financial results, environment, and society. Stakeholder engagement, risk management, strategic planning, and a dedication to ongoing ESG performance improvement are all necessary for this [28].

2.3. Chief Sustainability Officer (CSO) on Corporate Performance and Image

A Chief Sustainability Officer (CSO) can significantly impact corporate performance and image by focusing on sustainability and responsible business practices.

2.3.1. Impact on Corporate Performance [21, 29]

- **Cost Reduction:** CSOs can cut costs by increasing efficiency, consuming fewer resources, and operating more efficiently by implementing sustainable practices. For instance, initiatives to reduce waste and use energy-efficient technologies can save costs [22].
- **Risk Management:** CSOs play a crucial role in recognizing and reducing risks associated with sustainability, including those linked to supply chains, regulations, and reputation. The company's financial performance can be safeguarded by efficient risk management.
- **Innovation:** By promoting the creation of environmentally friendly goods, services, and technology, CSOs can stimulate innovation. These developments boost competitiveness, provide new revenue sources, and open new markets.
- **Access to Capital:** Businesses with outstanding sustainability performance are attracting the interest of several investors and financial institutions. A CSO can assist in luring ethical investors and providing access to sustainable financing sources.
- **Long-Term Value Creation:** By drawing investors and raising shareholder value, sustainable practices and ethical corporate conduct can result in long-term value development.

- **Market Expansion:** CSOs can assist a company in broadening its market reach by spotting development prospects in developing sustainable markets.
- **Employee Productivity and Retention:** By emphasizing sustainability, employers may draw in top talent, raise employee morale, lower turnover, and eventually increase productivity.

2.3.2. Impact on Corporate Image [30]

- **Enhancement of Reputation:** A solid dedication to sustainability and ethical business practices can improve a company's standing and credibility with the public, investors, and clients.
- **Brand Differentiation:** A company's sustainability efforts can set it apart from rivals and establish its reputation as an ethical and socially conscious brand.
- **Customer Loyalty:** Customers are becoming increasingly loyal to businesses that share their values by choosing goods and services. The sustainability initiatives of a CSO can increase brand and client loyalty.
- **Investor Confidence:** Sturdy sustainability procedures can boost investor confidence, increasing stock prices and facilitating better financing access. Eco-labeling and Certifications: A CSO can guide the company in obtaining eco-labels and certifications that demonstrate its commitment to sustainability, which can attract environmentally conscious consumers.
- **Transparency:** Transparency in reporting sustainability performance helps establish credibility and trust. CSOs protect the company's reputation by ensuring accurate and consistent reporting.
- **Community Involvement:** Participating in local communities and supporting environmental and social causes can build goodwill and positive relationships, enhancing a company's reputation locally.
- **Regulatory Compliance:** Adhering to sustainability guidelines and standards enhances the company's reputation and demonstrates corporate citizenship.

Driving cost savings related to sustainability, risk management, innovation, and value creation are some ways that CSOs can significantly impact business performance [30].

3. Research Method

Document analysis is an effective technique in the study of policy. Although much debate has yet to be about utilizing this method to comprehend and analyze sustainability policy, existing qualitative research manuals guide document analysis. An approach in social research is document analysis, a systematic process for studying or evaluating papers. Document analysis can give context, spark questions, support other types of research data, follow development over time, and verify other sources. Bowen (2009) advises reading the documents to identify pertinent categories of analysis for the entire set of papers, skimming them to acquire a general overview, and then interpreting the body of the papers [31].

In this study, we employ the READ (Ready materials, Extract data, Analyse data, Distil) approach, which follows the steps of (1) preparing your materials, (2) extracting data, (3) analyzing data, and (4) distilling your conclusions, drawing on advice from different fields and our research expertise (Figure 2). The document studies focus on the annual report of 76 sustainability reports of multinational enterprises (MNEs) and state-owned enterprises (SOEs) operating in Indonesia listed on the Indonesia Stock Exchange for 2021–2022 [32].

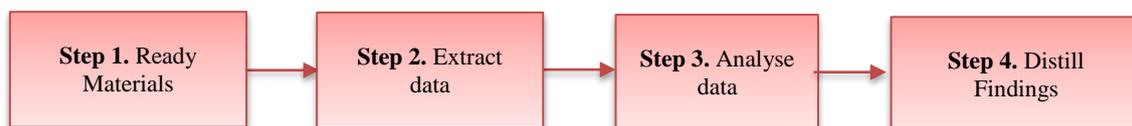


Figure 2. READ flowchart

4. Discussion

4.1. Indonesian Multinational Companies and CSO

Corporate risks and problems about sustainability, social responsibility, and environmental stewardship may be encountered by multinational companies (MNEs) and state-owned enterprises (SOEs) in the absence of a Chief Sustainability Officer (CSO). Reputation risks: The business might not be equipped to handle environmental, social, or governance (ESG) issues if no CSO is responsible for sustainability initiatives [33].

Customer trust can be undermined, and unfavorable press about labor issues, environmental infractions, or unethical behavior can damage the company's reputation. Environmental and social restrictions are intricate, and multinational enterprises (MNEs) and state-owned enterprises (SOEs) that operate across borders frequently run afoul. The company may negotiate and comply with national and international ESG laws with the help of a committed sustainability leader, avoiding fines and legal troubles. Supply Chain Risks: Due to their reliance on intricate global supply networks, many MNEs and SOEs risk social and environmental problems. Operations may be disrupted, and reputational damage may result from a lack of monitoring of supply chain sustainability, which can give rise to issues with forced labor, unethical sourcing, and environmental degradation [34].

A lack of attention to sustainability can lead to financial risks, waste production, inefficient resource use, and high energy use. The company's financial performance may be impacted by several factors, which may raise operating costs and lower profitability. Market entry Challenges: A CSO or well-defined sustainability strategy may make it easier for specific markets, especially those with solid sustainability and ESG expectations, to gain entry to the market and develop prospects. Multinational firms can require assistance to comply with local sustainability standards or participate in green supply chains. A company's sustainability practices may come under scrutiny from investors, particularly those with ESG-focused portfolios. Giving investors the assurance and information they need without a CSO may be challenging, which could lower investor confidence and increase share price volatility [35].

Talent attraction and employee morale, especially among younger generations, frequently look for companies with strong ethical and sustainable practices. Neglecting sustainability can negatively affect staff morale, increase attrition, and make it challenging to find qualified candidates. With a CSO, community relations may operate with sufficient community involvement initiatives. Building good relationships with local people may take more work for MNEs and SOEs, which could result in disputes and disturbances. Missed Business prospects: The company may lose out on possible development and income streams if a CSO cannot find and seize sustainability-related business prospects, such as green technologies, renewable energy projects, or sustainable product lines [36].

MNEs and SOEs are exposed to several serious hazards related to climate change and environmental challenges. A deficiency of sustainability leadership may impede the company's capacity to adjust to evolving environmental conditions and regulations. MNEs and SOEs may be exposed to various sustainability-related risks without a CSO, such as regulatory non-compliance, reputational harm, difficulties gaining access to markets, and financial underperformance. To reduce these risks and take advantage of sustainability opportunities, many multinational businesses abroad designate a CSO or create specialized sustainability teams and efforts [36].

4.2. Indonesian Multinational Companies in Need of CSO

A Chief Sustainability Officer (CSO) is necessary for international corporations doing business in Indonesia for several reasons [37]:

- **Compliance with Local Regulations:** Environmental and sustainability laws in Indonesia are becoming stricter and stricter. By ensuring that the business complies with these requirements, a CSO can lower the possibility of fines and legal problems [38].
- **Handling Local Environmental Issues:** Deforestation, water and air pollution, and habitat degradation are some of Indonesia's significant environmental issues. A CSO can assist the business in overcoming these obstacles and creating plans for conscientious ecological management [39].
- **Managing Social Risks:** In Indonesia, social issues such as human rights, labor rights, and community involvement are vital. A CSO can supervise these efforts to ensure the business interacts with local communities and employees morally and responsibly [39].
- **Enhancing Stakeholder Relations:** Building positive relationships with various stakeholders, including government agencies, NGOs, local communities, and customers, is crucial for a multinational's success in Indonesia. A CSO can facilitate these relationships and address stakeholders' concerns [40].
- **Reputation Risk Mitigation:** In today's globalized society, unfavorable press about social or environmental concerns can damage a multinational corporation's standing. Proactively managing and reducing these risks can be aided by a CSO [41].
- **Reach to Local Markets:** In Indonesia, where socially conscious consumerism is rising, a company's capacity to reach local markets can be enhanced by showcasing a dedication to sustainability and ethical business practices [38].
- **Attracting and Retaining Talent:** Companies that uphold strong sustainability and ethical standards tend to attract millennials and Gen Z workers. In a competitive labor market, a CSO can aid in luring and keeping top personnel [42].
- **Responsible Supply Chain Management:** In Indonesia, where raw resources like palm oil, lumber, and textiles have come under fire owing to social and environmental issues, responsible sourcing and supply chain management are essential. A CSO can assist the business in implementing ethical supply chain procedures [38].

- **Opportunities for Sustainable Growth:** Indonesia presents chances for sustainable growth, including eco-friendly travel, sustainable agriculture, and renewable energy initiatives. A CSO can help businesses find and seize these opportunities [43].
- **Community Engagement:** For international businesses in Indonesia, cultivating strong ties with the local community is essential. Incredibly, when comprehending local culture, a CSO may spearhead community involvement initiatives and assist the business in becoming a responsible corporate citizen [44].
- **Financial and Market Performance:** Numerous studies have demonstrated that businesses implementing sound sustainability policies outperform their competitors regarding profitability and investor appeal. A CSO can enhance the organization's financial success [39].
- **Preservation of the Environment:** Indonesia has some of the most varied ecosystems and threatened species worldwide. A CSO can supervise the business's initiatives to support biodiversity preservation and environmental conservation [44].

In Indonesia, multinational corporations must have a chief sustainability officer to manage the intricate web of environmental, social, and governance issues, maintain regulatory compliance, improve relationships with stakeholders, comprehend local customs and religious beliefs, and grasp chances for sustainable development. The CSO plays a critical role in ensuring that the business's operations and ideals align with the local environment and that it benefits both companies and Indonesian society (Figure 3). Understanding a person's cultural, linguistic, and ethnic origin and surroundings requires considering CSOs [44].



Figure 3. The Need for CSO

4.3. CSO and Carbon Emission

One of the most critical roles in monitoring and lowering a company's carbon emissions is the Chief Sustainability Officer (CSO). CSOs may, however, encounter difficulties and setbacks in this regard for various reasons. The following are some typical causes that could result in CSOs failing to control carbon emissions [45]:

- **Lack of Executive Support:** CSOs may require strong backing from the company's senior executives and the board of directors to execute successful carbon reduction plans. Allocating resources and enacting change across the entire organization needs the executive team's support.
- **Inadequate Resources:** CSOs may find creating and carrying out all-encompassing carbon reduction plans more challenging if they lack the funding, personnel, and technological resources. This may restrict the reach and potency of environmental programs.
- **Opposition to Change:** Both corporate culture and opposition to change can obstruct development. CSOs frequently must overcome internal resistance to sustainability initiatives, especially when those projects involve large financial outlays or upset established procedures.
- **Lack of Metrics and Clear Goals:** It can be simple to monitor progress and hold the company responsible for meeting its emissions targets if there are quantifiable, well-defined goals and key performance indicators (KPIs) for carbon reduction.

- **Inadequate Data and Reporting:** Determining the company's carbon footprint and making wise decisions depend on accurate data gathering and reporting. CSOs can evaluate emissions more precisely if they have access to better data or reporting systems.
- **Complex Supply Chains:** Organizations that manage emissions outside their core business functions may require assistance. Supplier engagement in sustainability initiatives and supply chain coordination are critical responsibilities of the CSO.
- **Regulatory Changes:** CSOs may face ambiguity and complexity due to evolving carbon legislation and reporting requirements. It might not be easy to maintain compliance and adjust to changing conditions.
- **Ineffective Communication:** CSOs must convey to internal and external audiences the significance of carbon reduction initiatives. Stakeholder support and workforce engagement can suffer from poor communication.
- **Short-Term Focus:** Some businesses give more importance to immediate cash gains than long-term sustainability goals. CSOs can require assistance securing support for projects with extended payback periods.
- **Lack of Innovation:** Progress may be hampered by a failure to investigate novel technologies and approaches for reducing emissions. CSOs ought to proactively look for and apply creative solutions [46].
- **Competing Priorities:** It might be difficult for CSOs to devote resources to and focus on emissions reduction in organizations where sustainability is pitted against other strategic priorities.
- **Ineffective Cooperation:** Departmental and disciplinary cooperation is frequently necessary for successful emissions reduction. Strong leadership and teamwork abilities are essential for CSOs to engage stakeholders successfully.

CSOs should strive to create a compelling business case for reducing emissions, get executive backing, establish specific objectives, invest in systems for gathering and reporting data, involve staff members, and keep up with new technological and legislative changes to overcome these obstacles. Success in reducing carbon emissions can also be fueled by a dedication to integrating sustainability into company culture and a long-term sustainability focus (Figure 4).

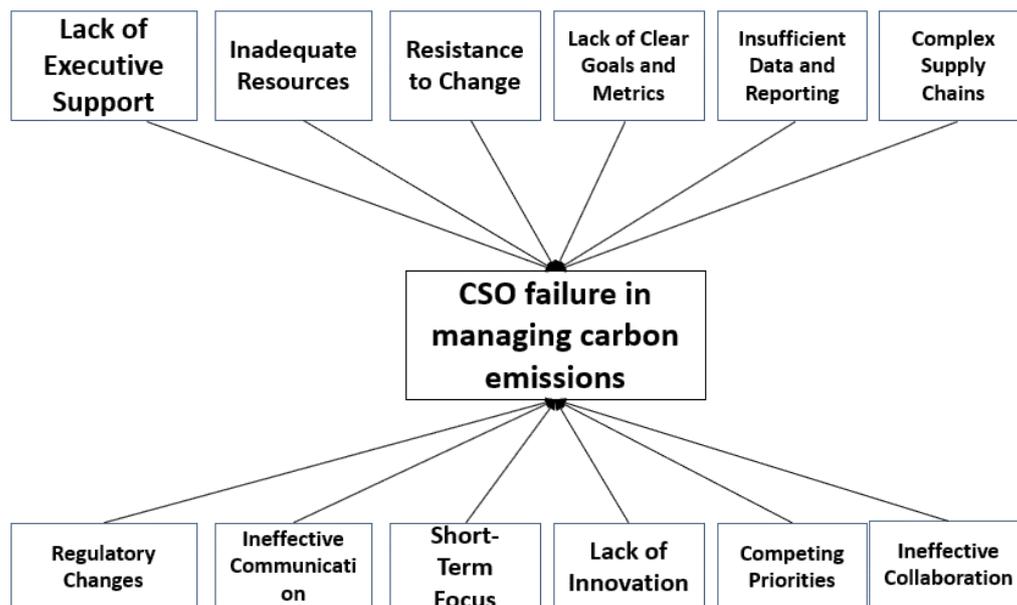


Figure 4. CSO's failure to manage carbon emissions top of form

5. Conclusions

For multinational corporations (MNEs) and state-owned enterprises (SOEs) operating in Indonesia to achieve net-zero carbon dioxide (CO₂) emissions by the year 2050, this article will review the sustainability reports and analyze the role of a Chief Sustainability Officer (CSO). Here is a summary of the value of having a CSO in certain businesses. Indonesian MNEs and SOEs must understand the critical necessity for a dedicated Chief Sustainability Officer (CSO) inside their organizational structure if they hope to achieve net-zero carbon emissions by 2050. Strategic Leadership, Regulatory Compliance, Stakeholder Engagement, Innovation and Technology Adoption, Risk Mitigation, Cost Savings, Carbon Accounting and Reporting, and Competitive Advantage are just a few reasons this strategic position is crucial. Hiring a CSO within Indonesian MNEs and SOEs involves more than merely ensuring sustainability (see Figure 5).

- **Strategic Leadership:** CSO can provide strategic leadership and direction in aligning the company's operations with sustainability goals. They can develop a clear roadmap and set targets for reducing carbon emissions, ensuring sustainability is integrated into the core business strategy.
- **Regulatory Compliance:** Like many countries, Indonesia will likely introduce stricter environmental regulations and policies in the coming years. CSO can monitor and interpret these regulations, ensuring the company remains compliant and avoids potential penalties or reputational damage.
- **Stakeholder Engagement:** CSO can engage with various stakeholders, including customers, investors, local communities, and NGOs, to communicate the company's commitment to sustainability. This engagement can enhance the company's reputation and build stronger relationships with key stakeholders [47].
- **Innovation and Technology Adoption:** MNEs and SOEs must adopt innovative technologies and practices to achieve net-zero emissions. CSOs can lead the identification and implementation of sustainable technologies, energy-efficient practices, and renewable energy solutions.
- **Risk Mitigation:** Climate change poses significant business risks, including supply chain disruptions, increased resource scarcity, and reputational damage. CSO can assess and mitigate these risks, ensuring the company's long-term resilience.
- **Cost Savings:** Sustainability initiatives often lead to cost savings in the long run. CSOs can identify opportunities for reducing energy consumption, optimizing resource use, and minimizing waste, contributing to improved profitability [48].
- **Carbon Accounting and Reporting:** Accurate measurement and reporting of carbon emissions are essential for tracking progress toward net-zero goals. CSOs can oversee the development of robust carbon accounting systems and transparent reporting mechanisms.
- **Competitive Advantage:** Companies that proactively address sustainability issues will likely gain a competitive advantage in the market. CSO can help the company differentiate itself and attract environmentally conscious customers and investors [49].



Figure 5. Chief Sustainability Officer Rules

In conclusion, employing a CSO within Indonesian MNEs and SOEs is a strategic requirement for long-term performance and satisfying sustainability goals. In a world that is becoming more environmentally sensitive, the CSO is essential in promoting sustainable practices, guaranteeing compliance, lowering risks, and strengthening the company's reputation. These businesses should prioritize developing and empowering the CSO function if they hope to meet their goal of being net-zero emitters of CO₂ by 2050.

6. Declarations

6.1. Author Contributions

Conceptualization, A.A. and H.C.; methodology, R.S.; software, R.P.; validation, A.A., H.L., and Y.M.; formal analysis, A.A.; investigation, H.C.; resources, H.L.; data curation, R.P.; writing—original draft preparation, A.A.; writing—review and editing, H.C. and R.S.; visualization, Y.M.; supervision, R.P.; project administration, Y.M.; funding acquisition, H.C. and H.L. All authors have read and agreed to the published version of the manuscript.

6.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

6.3. Funding

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6.4. Institutional Review Board Statement

Not applicable.

6.5. Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

6.6. Declaration of Competing Interest

The authors declare that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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