




Effectiveness of ESG Performance Evaluation in Improving Corporate Sustainability: A Mixed Method Approach

Arwan Prabowo^{1*}, Yudo Anggoro² 
^{1,2} Institut Teknologi Bandung, Indonesia

Received : March 29, 2024

Revised : July 27, 2024

Accepted : July 30, 2024

Online : July 31, 2024

Abstract

The growing importance of global competition force companies not merely to sustain productivity and financial growth and plan for long-term competitiveness. Therefore, Environmental, Social, and Governance (ESG) principles, which guide companies in incorporating sustainability into their business practices, play a pivotal role in navigating the complexities of sustainable operations. Effective ESG performance evaluation is crucial in resolving business concerns. Accordingly, this research aims to analyze the most suitable approach to materializing and addressing ESG issues in corporate strategies. The proposed research methodology combines qualitative and quantitative analyses, including interviews, thematic analysis, and the analytical hierarchy process (AHP). The findings reveal that the Integrated Approach is the most effective strategy, with a weight of 24.1%, comprehensively balancing environmental, social, and governance priorities. The Stakeholder-Based Approach is also considered important, with a weight of 23.8%, emphasizing stakeholder engagement and collaboration. Meanwhile, the Compliance-Based Approach and the Opportunity-Based Approach exhibit lower effectiveness. This research contributes to a profound understanding of ESG performance evaluation, implementation strategies, and the role of sustainability in driving long-term business success while positively contributing to the environment and society. The limitations of the research and directions for future research are also discussed.

Keywords: *Environmental, Social, and Governance (ESG); Performance evaluation; Corporate Sustainability; Integrated Approach*

INTRODUCTION

In the contemporary business landscape, an increase in sales or profits is directly linked to an improvement in a company's financial performance, which in turn ensures stability and the potential for sustained business operations (Aydoğmuş et al., 2022; Cesarone et al., 2022). However, this financial success does not exist in a vacuum; company operations inevitably have a significant environmental footprint (Bhandari et al., 2022). Activities that overlook corporate responsibility can lead to environmental degradation, underscoring the fact that businesses carry a responsibility not only for financial outcomes but also for their environmental impact (Bhandari et al., 2022). This duality of responsibility emphasizes that the survival and success of a company hinge not only on enhancing its performance but also on its engagement with and accountability to all stakeholders, including the environment (Aggarwal & Jha, 2019; Alareeni & Hamdan, 2020; Buallay, 2019)

This engagement forms the basis of Corporate Social Responsibility (CSR), a concept that has evolved to include not just social but environmental accountability, reflecting an understanding that a company's sustainability is measured by more than its financial health (Aggarwal & Jha, 2019; Carroll, 1999; Xu & Woo, 2022). CSR is increasingly being encapsulated within the broader framework of Environmental, Social, and Governance (ESG) principles. These principles guide companies in integrating sustainability into their business models, making ESG performance a critical area for evaluation (Yun & Lee, 2022). ESG encompasses a comprehensive approach that considers the environmental impact, social contribution, and governance practices of a company (Aggarwal & Jha, 2019; Carroll, 1999; Xu & Woo, 2022) and is used by investors to evaluate a company's long-term viability and ethical standing (Eccles & Klimenko, 2019; Zumente & Bistrova,

Copyright Holder:

© Prabowo and Anggoro. (2024)

Corresponding author's email: arwan_prabowo@sbm-itb.ac.id

This Article is Licensed Under:



2021; Zumente & Lace, 2021).

Given the escalating intensity of global competition, companies are compelled to not only maintain productivity and financial growth and strategize for sustainable competitiveness (Bhandari et al., 2022; Porter & Kramer, 2006; Porter & Van Der Linde, 2017). This necessitates a balanced approach to operational planning that incorporates ESG considerations as central components of corporate strategy. Such an approach is vital in an era where stakeholder awareness regarding sustainable practices is on the rise, which influences investment decisions and consumer loyalty (Buallay, 2019; Yuen et al., 2022; Yun & Lee, 2022). Recent studies affirm the positive correlation between high ESG performance and improved financial metrics, such as stock liquidity and capital cost, showcasing ESG's role in enhancing company profitability (Aydoğmuş et al., 2022; Cesarone et al., 2022; D'Amato et al., 2023; Xu & Liu, 2023; Yuen et al., 2022).

However, implementing ESG principles is not without its challenges. The business issue is the complexity of integrating ESG considerations into the core operations of a company (Eccles et al., 2014; Yuen et al., 2022). Companies face the dual challenge of improving performance while mitigating environmental impacts and enhancing governance and social contribution. The Financial Services Authority's establishment of regulation Number 51/POJK.03/2017 is a testament to the increasing regulatory and societal expectations of companies that prioritize sustainability. This regulation, along with similar initiatives, underscores the growing importance of aligning business practices with sustainable development goals, emphasizing that true corporate success is achieved not only through financial gains but also through contributions to societal and environmental well-being.

Thus, the effectiveness of ESG performance evaluation plays a pivotal role in addressing this business issue. By rigorously assessing their ESG practices, companies can navigate the complexities of sustainable operation and identify strengths and opportunities for improvement (Eccles et al., 2014; Yuen et al., 2022). Such evaluations enable companies to strategize more effectively and ensure that their operations are aligned with broader sustainability goals. The increased investor focus on ESG factors highlights the need for companies to adopt comprehensive evaluation mechanisms that not only measure but also drive improvements in their ESG performance (Yun & Lee, 2022; Zumente & Lace, 2021). This, in turn, contributes to a more sustainable, responsible, and ultimately more successful business model in the long term.

Literature on ESG principles is extensive, and most studies have focused on evaluating the impact of ESG performance using various quantitative methods, including fixed-effect regression analysis (Kim & Li, 2021), the system generalized method of moments (Bhandari et al., 2022; Yuen et al., 2022), panel regression analysis (Alareeni & Hamdan, 2020; Xu & Liu, 2023), and machine learning (D'Amato et al., 2023). Only a few studies have applied a mixed-methods approach, including structural equation modeling and fuzzy-set qualitative comparative analysis (Muñoz-Pascual et al., 2019). Although many studies have explored the impact of ESG on firm financial performance comprehensively, those that have attempted to use a mixed-method analysis to understand the impact of ESG performance evaluation and its implementation strategies remain limited. Correspondingly, this study aims to fill this gap by analyzing the most suitable approach for materializing and addressing ESG issues within corporate strategies using a mixed-method analysis that combines interviews, thematic analysis, and the Analytic Hierarchy Process (AHP).

LITERATURE REVIEW

ESG Concept

The ESG framework has become an indispensable guide for evaluating a company's comprehensive impact and commitment to sustainability beyond mere financial indicators (Aggarwal & Jha, 2019; Carroll, 1999; Xu & Woo, 2022). It scrutinizes a firm's environmental

stewardship, focusing on energy consumption, waste management, pollution control, and conservation efforts (Alareeni & Hamdan, 2020; Buallay, 2019). Additionally, the social dimension evaluates the company's interactions with its employees, suppliers, customers, and communities, spotlighting labor practices, safety standards, and overall community engagement (Aydoğmuş et al., 2022; Buallay, 2019). Governance, the third pillar, assesses internal policies and leadership structures, emphasizing the importance of transparency and accountability (Aydoğmuş et al., 2022). This holistic approach is increasingly recognized within the investment community as vital (Yun & Lee, 2022; Zumente & Lace, 2021), providing insights into the long-term financial risks and opportunities stemming from a company's ethical and sustainable operations (Eccles et al., 2014; Yuen et al., 2022). As such, embedding ESG principles into corporate strategies has become essential for enhancing a company's reputation, securing consumer trust, ensuring long-term sustainable value, and aligning operational practices with broader societal and environmental objectives (Buallay, 2019; Yuen et al., 2022; Yun & Lee, 2022), despite the challenges of standardizing and measuring ESG criteria (Yun & Lee, 2022).

In particular, the energy sector exemplifies the critical application of the ESG framework, reflecting a significant shift toward assessing companies' financial and ESG impacts (Dutu, 2016; IESR, 2022; Kulachinskaya et al., 2020; Owusu-Manu et al., 2022). This sector's emphasis on ESG is driven by the substantial effect that energy companies have on the environment and the surrounding communities. As a result, ESG considerations have moved from a marginal part of corporate reporting to a central focus, indicating a broader change in how businesses perceive their role in society. The increasing importance of ESG in corporate communication, including its prominent feature in annual reports, signifies a shift from traditional business models to ones that equally prioritize profitability, environmental stewardship, social responsibility, and ethical governance (Dutu, 2016; IESR, 2022). Despite existing challenges in ESG evaluation, this evolution marks a fundamental shift in business ethos, underscoring the growing consensus on the need for companies, especially within the energy sector, to operate sustainably and responsibly in today's increasingly environmentally conscious market.

Triple Bottom Line (TBL) Concept

The TBL concept emerges as a transformative accounting framework, advocating for the integration of three critical performance dimensions—social, environmental, and economic—into the core of organizational assessment and decision-making (Hourneaux et al., 2018; Ibrahim et al., 2023; Milne & Gray, 2013; Muñoz-Pascual et al., 2019). By expanding the traditional focus on financial profitability to include social impact and environmental stewardship, TBL promotes a more comprehensive understanding of business value creation (Hourneaux et al., 2018; Muñoz-Pascual et al., 2019; Verwaal et al., 2022). This underscores the importance of measuring and evaluating a company's contribution to society (people), environmental responsibility (planet), and economic performance (profit) over time (Ibrahim et al., 2023). This holistic view encourages organizations to pursue sustainable development goals actively and sets a new paradigm that prioritizes long-term sustainability over immediate financial gains. Recognizing the intertwined nature of these dimensions, TBL posits that true organizational success and sustainability stem from balancing economic objectives with social welfare and environmental conservation (Ibrahim et al., 2023; Verwaal et al., 2022), thereby reshaping the landscape of corporate strategy and accountability.

Adopting the TBL framework signifies a fundamental shift in how companies view their role and impact, pushing beyond the pursuit of profit to embrace ethical trade, fair labor practices, and environmental conservation. It compels businesses to consider the broader implications of their operations and foster practices that protect workers' rights, promote community well-being, and

ensure the sustainable use of natural resources (Hendiani et al., 2020; Ibrahim et al., 2023; Muñoz-Pascual et al., 2019; Verwaal et al., 2022). This approach reflects a growing recognition among both the public and private sector that success and sustainability are not mutually exclusive but are achievable through strategic alignment of business operations with societal and environmental goals. As such, TBL not only guides companies in navigating the complexities of modern business landscapes (Hourneaux et al., 2018) and serves as a critical tool for stakeholders in evaluating corporate performance (Ibrahim et al., 2023; Muñoz-Pascual et al., 2019; Verwaal et al., 2022), encouraging a shift toward more responsible, equitable, and environmentally conscious business practices.

Institutional Theory

Institutional theory provides an insightful lens through which the dynamics of organizational behavior, under the influence of societal norms, values, and regulations, can be understood and analyzed (Aggarwal & Jha, 2019; Larrinaga et al., 2020; Xu & Woo, 2022). Rooted in the seminal works of Meyer and Rowan (1977) and DiMaggio and Powell (1983), this theory underscores how organizations adapt to and align with the institutional environment to secure legitimacy, access essential resources, and ensure survival. The theory's cornerstone concept, isomorphism, illustrates the process by which organizations within a particular field become increasingly homogenous over time, driven by coercive pressures from regulations, mimetic processes in response to uncertainty, and normative pressures from professional standards (DiMaggio & Powell, 1983). This adaptation not only aids in gaining societal acceptance but also addresses the symbolic importance of organizational practices, suggesting that such adaptations are often more about appearing legitimate and conforming to societal expectations than about achieving operational efficiencies (Aggarwal & Jha, 2019; Larrinaga et al., 2020; Xu & Woo, 2022). The evolution of institutional theory has introduced a focus on change and agency within organizations, suggesting that they are capable of influencing and shaping their institutional environments through what is known as institutional entrepreneurship (Etzion & Ferraro, 2010).

Applying institutional theory to the adoption of ESG principles offers profound insights into the strategic incorporation of sustainability and ethical practices into corporate strategies (Singhania & Saini, 2023). This theory elucidates that organizational actions are shaped not only by market forces but also by a wider institutional context comprising societal expectations, regulatory pressures, and cultural norms (Aggarwal & Jha, 2019). Such a perspective explains why businesses might integrate ESG considerations into their core operations—not merely for financial advantages but to align with external societal expectations, thereby ensuring long-term viability and competitive edge (DiMaggio & Powell, 1983; Rasolofo-Distler, 2022; Etzion & Ferraro, 2010). In this context, this theory illuminates the reasons behind companies' adoption of sustainable practices in response to various pressures, including legal requirements, industry trends, and professional norms (DiMaggio & Powell, 1983; Rasolofo-Distler, 2022; Xu & Woo, 2022). This nuanced understanding, provided by institutional theory, highlights the critical role of external factors in molding corporate strategies around ESG, thereby offering a comprehensive view of how sustainability is embedded within organizational operations and strategy, transcending the conventional profit-centric business model.

Research Positioning

Literature on ESG principles is extensive, and most studies have been focusing on evaluating the impact of ESG performance using various quantitative methods, including fixed-effect regression analysis (Kim & Li, 2021), the system generalized method of moments (Bhandari et al., 2022; Yuen et al., 2022), panel regression analysis (Alareeni & Hamdan, 2020; Xu & Liu, 2023),

and machine learning (D'Amato et al., 2023). Only a few studies have applied a mixed-methods approach, including structural equation modeling and fuzzy-set qualitative comparative analysis (Muñoz-Pascual et al., 2019).

Although many studies have explored the impact of ESG on firm financial performance comprehensively, those that have attempted to use a mixed-method analysis to understand the impact of ESG performance evaluation and its implementation strategies remain limited. Correspondingly, this study aims to fill this gap by analyzing the most suitable approach for materializing and addressing ESG issues within corporate strategies using a mixed-method analysis that combines interviews, thematic analysis, and the Analytic Hierarchy Process (AHP). In particular, this study evaluates various ESG priorities using five different approaches: Risk-Based, Stakeholder-Based, Opportunity-Based, Compliance-Based, and Integrated-Based.

RESEARCH METHOD

Research Design

The proposed research methodology for evaluating a company's ESG performance follows a systematic approach, as depicted in Figure 1 (Strine et al., 2021).

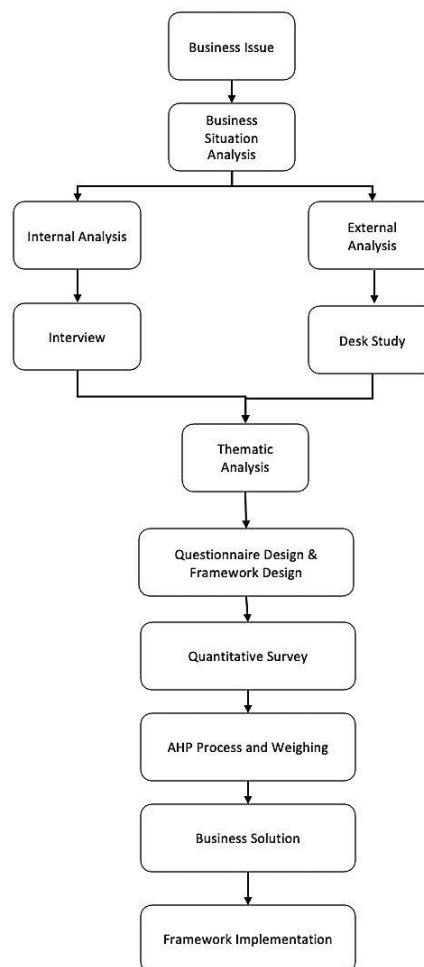


Figure 1. Research Method

It begins with an identification of the business problem, which is crucial for defining the research objectives and scope (Johnson et al., 2019). The next step involves conducting a comprehensive business situation analysis through internal (interviews) and external (desk study) analyses. Internal analysis focuses on gathering insights from within the organization, while

external analysis examines market conditions and external forces that may impact the company's ESG performance (Brown et al., 2020). The results of these analyses are then used for thematic analysis to help identify recurring patterns and issues (Guest et al., 2012). The findings from the thematic analysis inform the development of a structured questionnaire and quantitative survey framework, which are designed to validate and expand upon the initial findings (Creswell & Poth, 2018). Subsequently, the AHP is employed to prioritize themes based on their relative importance (Saaty, 2008). This prioritization ensures that the most critical issues are addressed first when developing a business solution for implementation (Kumar et al., 2021).

Data Collection

The research employed a mixed-methods approach that combines quantitative and qualitative techniques to gather comprehensive evidence on the research question (Creswell & Tashakkori, 2007). Quantitative data are collected through surveys, databases, and experiments, which enable the measurement and analysis of variables on a larger scale (Fowler, 2023). On the other hand, qualitative data was gathered through interviews, focus groups, and observations, providing depth and context to the research (Patton, 2015). Participants involved in the survey and interviews were XYZ Company employees selected for several main reasons related to sustainability. First, as one of the largest energy companies in Indonesia, XYZ has significant sustainability programs and initiatives, so it can provide relevant and in-depth insights into sustainability practices in the energy sector. Second, the XYZ Company has a variety of projects related to renewable energy and energy efficiency, making it an interesting case study for this research. The use of AHP within the mixed-methods approach provides a strong quantitative foundation for assessing ESG performance by weighting the ESG criteria (Ikram et al., 2020; Sequeira et al., 2021). This combination of methods ensures a robust and nuanced understanding of the company's ESG performance and the factors influencing it (Molina-Azorín & Cameron, 2010).

Interview Questions:

- How does a company measure and manage its environmental impact?
- What initiatives have been undertaken to reduce carbon emissions and waste?
- How does the company integrate technological innovations to enhance environmental sustainability?
- How does a company ensure the well-being and safety of its employees?
- Are there programs in place to support the development of local communities?
- How does a company address issues of diversity and inclusion in the workplace?
- How does the company's governance structure support the implementation of ESG?
- Are there effective anticorruption policies in place, and how are they implemented?
- How does a company ensure transparency and accountability when reporting ESG performance?

Data Analysis

The data analysis method consisted of two main components: external and internal analysis. The external analysis evaluates the influences on company sustainability from outside factors, such as market developments, new environmental policies, stakeholder demands, social-environmental issues, and technological innovations (Wong et al., 2020). This analysis helps companies understand the context in which they operate and adapt their ESG strategies accordingly (Esty & Winston, 2009). The internal analysis assesses the integration of ESG practices into company activities through interviews with top management, employees, and relevant departments. It

focuses on resource management, operational efficiency, employment practices, diversity and inclusion policies, and compliance (Epstein & Buhovac, 2014). This analysis provides insights into the company's strengths and weaknesses in terms of ESG performance (Székely & Knirsch, 2005).

The internal analysis is further divided into two sub-components: (1) qualitative analysis and (2) quantitative analysis. Qualitative analysis uses thematic analysis to identify patterns and themes in interview data (Braun & Clarke, 2006). This approach allows for a deep understanding of stakeholders' subjective experiences and perceptions of stakeholders regarding the company's ESG performance (King & Brooks, 2018). The quantitative analysis employed AHP with pairwise comparisons to compute the weights of each ESG element (Saaty & Vargas, 2012). This method enables the quantification of subjective judgments and provides a clear hierarchy of the relative importance of different ESG factors (Dos Santos et al., 2019).

1. Qualitative Analysis

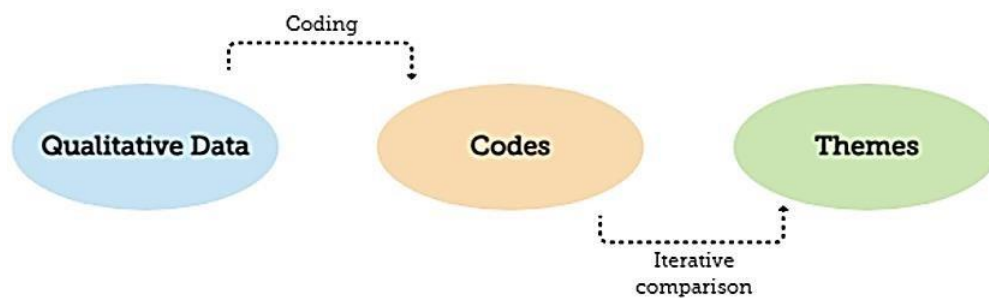


Figure 2. Thematic Analysis Process

Figure 2 depicts a systematic process of thematic analysis that identifies and interprets patterns or themes in qualitative data (Braun & Clarke, 2006). The process involves familiarizing oneself with the data, generating initial codes, and examining these codes to identify potential themes that capture significant aspects of the data (Guest et al., 2012). The themes are then reviewed, refined, and clearly defined to ensure they accurately represent the dataset and contribute to understanding the research topic (King & Brooks, 2018). Despite its subjectivity and potential inconsistencies, thematic analysis remains a flexible and accessible tool for extracting meaningful insights from qualitative data (Nowell et al., 2017).

2. Quantitative Analysis

The AHP was developed by Thomas L. Saaty in the 1970s, is a structured and systematic decision-making approach that handles complex problems by breaking them down into simpler, more manageable components (Ikram et al., 2020; Sequeira et al., 2021). AHP structures a decision into a hierarchy that includes the main goal, various criteria and sub-criteria, and alternatives at the lowest level, and uses pairwise comparisons to compare elements at each level in terms of their relative importance, typically using Saaty's scale of 1 to 9, as shown in Table 1. These comparisons are used to compute the weight of each element, reflecting its significance in the decision-making process. A consistency check ensures that the judgments made are coherent and logical. The final stage involves synthesizing these weights to determine the best alternative based on the highest overall score. Despite its mathematical rigor, AHP hinges on the subjective judgments of decision-makers, emphasizing the importance of careful and consistent evaluation throughout the process. However, it remains a valuable tool for transforming subjective assessments into quantitative analysis in various fields, from business strategy and project management to product selection and

conflict resolution.

Table 1. Saaty Scale for AHP Analysis

Scale Value	Description of the Importance	Explanation
1	Equal Importance	The two activities contribute equally to the objective.
3	Moderate Importance	Experience and judgment slightly favor one activity over another.
5	Strong Importance	Experience and judgment strongly favor one activity over another.
7	Very Strong Importance	One activity is strongly favored over another; its dominance is demonstrated in practice.
9	Extreme Importance	Evidence favoring one activity over another is of the highest possible affirmative order.
2, 4, 6, 8	Intermediate Values	Used to represent the compromise between the values listed above.

The proposed research methodology takes a holistic approach to researching business issues, particularly evaluating ESG performance (Linnenluecke & Griffiths, 2010). It balances in-depth insights into internal dynamics and external influences with robust data analysis to generate effective business solutions (Montiel & Delgado-Ceballos, 2014). By combining qualitative and quantitative methods, the methodology ensures a comprehensive understanding of the company's ESG performance and its impact on overall sustainability (Testa et al., 2018). This approach aligns with the growing recognition of the importance of ESG factors in business decision-making and the need for a multi-dimensional assessment of corporate sustainability (Friede et al., 2015; Bagh et al., 2017). The proposed methodology provides a structured framework for companies to evaluate their ESG performance, identify areas for improvement, and develop targeted strategies to enhance their sustainability practices (Eccles et al., 2014; Morioka & de Carvalho, 2016).

FINDINGS AND DISCUSSION

Qualitative Result

Based on the comprehensive interviews conducted with XYZ Company employees across various departments (P1, P2, P3, P4, and P5), as shown in Table 2, it is evident that the company has a strong commitment to integrating ESG principles into its operations and decision-making processes. XYZ Company has set ambitious targets to reduce its carbon footprint through initiatives such as the adoption of renewable energy, sustainable packaging, and innovative technologies, while also prioritizing waste reduction, energy efficiency, and water conservation. The company places a strong emphasis on employee well-being, safety, and diversity and actively engages with local communities through development programs.

XYZ Company has established a robust governance framework to ensure transparency, accountability, and ethical conduct, with dedicated departments overseeing ESG implementation and reporting and strict anti-corruption policies in place. Throughout the interviews, innovation and technology emerged as crucial elements in XYZ's ESG strategy, alongside a focus on diversity, equity, and inclusion. In conclusion, XYZ Company demonstrates a proactive approach to sustainability and dedication to creating long-term value for all stakeholders by integrating ESG principles into its core operations and decision-making processes, positioning itself as a responsible corporate citizen and a leader in the energy industry's transition toward a more sustainable future.

Table 2. Participant Key Quotes

Participant	Main Themes	Sub-Themes	Key Quotes
P1	Environmental	<ul style="list-style-type: none"> - Carbon footprint reduction initiatives - Adopting renewable energy - Sustainable packaging and materials 	<p>"...the company has ESG targets."</p> <p>In terms of the environment, goals are divided into several scopes. Scopes 1, 2, and 3... are translated into real impacts, such as reducing Scopes 1 and 2 through various programs to decrease the percentage of carbon footprint..."</p>
	Social	<ul style="list-style-type: none"> - Employee well-being and safety - Community engagement and development - Promoting diversity and inclusion 	<p>"...ESG serves as the foundation for driving business targets, especially in social aspects... covering all aspects of employee well-being and aiming for zero accidents in safety, with specific KPIs for no violations in this scope."</p>
	Governance	<ul style="list-style-type: none"> - Structuring for ESG implementation - Anti-corruption measures - ESG reporting transparency 	<p>"...creating special divisions to support ESG, such as the ER team for social and governance, and the social investment team, as well as a special division for environmental... working nationally, regionally, and globally."</p>
P2	Environmental Impact	<ul style="list-style-type: none"> - Measurement and management - Carbon and waste reduction - Innovation and technology integration 	<p>"Because I have dealt with supplier platforms before, where we measure how much carbon emission they produce. It's very technical, for example, how it's calculated every year and then in the following years, and so on."</p>
	Social Engagement	<ul style="list-style-type: none"> - Employee well-being and safety - Community development and support - Diversity, inclusion, and equality 	<p>"One thing that is very much paid attention to in how XYZ Company regulates its employees is that they introduce what is called work-life balance. So, work-life balance is an effort on how the company as an organization provides a policy that we must balance between our personal well-being and the targets that need to be delivered..."</p>
	Governance	<ul style="list-style-type: none"> - ESG structure and support - Anticorruption policies 	<p>"As far as I know, ESG reporting is global. And it should be published. As a publicly listed company, XYZ</p>

Participant	Main Themes	Sub-Themes	Key Quotes
P3	Environmental	- Transparency and ESG reporting	Company. It should be there. You need to confirm that but it should be there."
		- Reporting environmental impacts on the government	"To reduce carbon, we first installed solar panels. It can cover about 30% of the daily consumption of a person."
		- Reporting internal environmental impacts to XYZ	
	Social	- Initiatives to reduce carbon emissions	
		- Initiatives to conserve water; and	
		- Use of technology to improve energy efficiency	
	Governance	- Employee well-being and safety	"So every leader must create conditions, especially in their area, so that everyone is free to speak up and give suggestions without any pressure. Therefore, when they talk to anyone about issues, they feel heard and not intimidated. That's the psychological safety that we apply here."
		- Programs for local communities	
		Diversity and inclusion	
P4	Environmental	- Structure for ESG implementation	"Regarding governance, we have what's called LOD, line of defense. Line of defense starts from LOD 1, LOD 2, and LOD 3. Thus, the structure is that LOD 1 is a self-assessment. So the people at LODP are the ones who conduct the audit."
		- Anti-corruption training and implementation	
		- Transparency and accountability of ESG reporting	
	Technology	Regulatory compliance	"XYZ Company follows environmental regulations from the Indonesian and global governments." They prepare environmental impact assessments (RKL-RPL) and report biannually through a government app called SIMPEL."
		- Monitoring systems	
		- Real-time reporting	
	Technology	- Use of technology	"Technologies like solar panels and IoT (Energy Monitoring System) are integrated to enhance environmental sustainability. XYZ is considering a transition from

Participant	Main Themes	Sub-Themes	Key Quotes
			diesel to LNG."
	Social	- Employee well-being - Community engagement Diversity and inclusion	"XYZ Company ensures employee well-being and safety through initiatives like learning mindset, human error awareness, and psychological safety programs."
	Governance	- Internal auditing - Anti-corruption - Transparency and accountability	"XYZ Company implements governance through a "line of defense" system with multiple levels of internal auditing and adheres to certifications like ISO and SMK3 with regular audits."
P5	Environmental	impact measurement and management - Emission and waste reduction initiatives - Technology and innovation integration	"Indicators are used. Of course, the spirit is to minimize negative impacts on society and the environment. Then, for the management of environmental impacts, there is a hierarchy of mitigation that also applies to safety. The first step is to avoid..."
	Social	- Work comfort and safety - Local community programs Diversity and inclusion	"Some principles taken by HR include the principle of being well-paid for all employees; then, there is equality; we do not look at gender... And safety is certainly the number one concern at XYZ Company..."
	Governance	- Organizational structure and ESG - Anticorruption policies - Transparency and accountability	"ESG here I see it as a necessity, a need, and also a demand from our external stakeholders, and related to ESG there is environmental, social, and governance. In the XYZ Company, as far as I know, there are departments that cover each of these fields..."

Quantitative Result

Based on the provided decision hierarchy, the AHP was applied to prioritize various ESG factors for a company. Table 3 presents the decision hierarchy that consists of three levels: Level 0 represents the overall goal of determining ESG priorities, Level 1 outlines the main categories (Environmental Performance, Social Performance, Corporate Governance, Innovation and Technology, and ESG Reporting and Communication), and Level 2 further breaks down each category into specific factors. The global priorities are expressed as percentages and indicate the relative importance of each factor in achieving the overall goal. The results show that the top three priorities are Collaboration and Partnership (9.8%), Third Party Verification (8.9%), and Shifting to cleaner energy sources (8.6%), while the lowest priorities are Diversity and Inclusion (1.3%),

Occupational Health and Safety (1.9%), and Human Rights and Employment Practices (2.1%). This hierarchy provides a structured approach to decision making, allowing companies to focus on the most critical ESG factors and align their strategies to improve overall sustainability performance.

Table 3. Decision Hierarchy of ESG Priorities

Decision Hierarchy			
Level 0	Level 1	Level 2	Global Priority
ESG Priorities	Environmental Performance	Carbon footprint Reduction & Offset	5.7%
		Shifting to cleaner energy sources	8.6%
		Energy Efficiency	7.8%
		Water and Waste Management	3.8%
	Social Performance	Diversity and Inclusion	1.3%
		Occupational Health and Safety	1.9%
		Employee Well-being and Safety	2.6%
		Community Development	2.3%
		Human Rights and Employment Practices	2.1%
	Corporate Governance	Transparency and Accountability	4.8%
		Business Ethics and Anti-Corruption	6.0%
		Compliance	8.4%
		Stakeholder Engagement	3.2%
	Innovation and Technology	Investment in Environmentally Friendly Technology	5.2%
		Sustainable Product and Service Development	5.4%
		Collaboration and Partnership	9.8%
	ESG Reporting and Communication	Quality of ESG Reporting	7.3%
		Third-party Verification	8.9%
		Stakeholder Involvement in Communication	4.7%
			1.0

Table 4 presents the results of an AHP analysis that evaluates various ESG priorities using five different approaches: Risk-Based, Stakeholder-Based, Opportunity-Based, Compliance-Based, and Integrated. The decision hierarchy consists of three levels, with Level 0 representing the overall ESG priorities, Level 1 categorizing the main aspects (Environmental Performance, Social Performance, Corporate Governance, Innovation and Technology, and ESG Reporting and Communication), and Level 2 further breaking down each category into specific factors. The global priorities indicate the relative importance of each factor in achieving the overall ESG priorities, while the table also shows the priorities assigned to each factor under the five different approaches.

Table 4. Decision Hierarchy of ESG Priorities using Five Different Approaches

Decision Hierarchy								
Level 0	Level 1	Level 2	Global Priority	Risk-Based Approach	Stakeholder-Based Approach	Opportunity-Based Approach	Compliance-Based Approach	Integrated Approach
ESG Prioriti	Environmental Performance	Carbon footprint	5.7%	0.100	0.257	0.168	0.222	0.253

Decision Hierarchy								
Level 0	Level 1	Level 2	Global Priority	Risk-Based Approach	Stakeholder-Based Approach	Opportunity-Based Approach	Compliance-Based Approach	Integrated Approach
es		reduction and Offset 0.220						
		Shifting to cleaner energy source 0.331	8.6%	0.071	0.236	0.286	0.120	0.287
		Energy efficiency of 0.301	7.8%	0.111	0.224	0.222	0.152	0.290
		Water and Waste Management, 0.148	3.8%	0.174	0.142	0.142	0.243	0.300
		Diversity and inclusion: 0.130	1.3%	0.109	0.243	0.191	0.163	0.294
	Social Performance: 0.102	Occupational Health and Safety 0.183	1.9%	0.213	0.190	0.105	0.317	0.174
		Employee Well-being and Safety 0.254	2.6%	0.149	0.197	0.147	0.265	0.241
		Community Development 0.226	2.3%	0.154	0.250	0.164	0.134	0.298
		Human Rights and Employment Practices 0.206	2.1%	0.120	0.274	0.150	0.228	0.228
		Transparency and Accountability 0.215	4.8%	0.199	0.214	0.096	0.286	0.204
	Corporate Governance 0.225	Business Ethics and Anti-Corruption 0.266	6.0%	0.252	0.224	0.088	0.286	0.150
		Compliance 0.376	8.4%	0.267	0.153	0.092	0.302	0.186
		Stakeholder Engagement: 0.143	3.2%	0.154	0.322	0.156	0.155	0.214
		Investment in environmental Friendly Techno 0.256	5.2%	0.104	0.181	0.371	0.119	0.225
		Sustainable products and Service Development 0.264	5.4%	0.106	0.188	0.302	0.114	0.290
	Innovation and Technology, 0.205	Collaboration and Partnership,	9.8%	0.108	0.330	0.218	0.096	0.247

Decision Hierarchy								
Level 0	Level 1	Level 2	Global Priority	Risk-Based Approach	Stakeholder-Based Approach	Opportunity-Based Approach	Compliance-Based Approach	Integrated Approach
		0.480						
	ESG Reporting and Communication 0.209	Quality of ESG Reporting 0.349	7.3%	0.127	0.296	0.128	0.233	0.216
		Third Party Verification 0.424	8.9%	0.184	0.245	0.121	0.206	0.245
		Stakeholder Involvement in Communication 0.227	4.7%	0.119	0.291	0.169	0.161	0.259
			1.0	14.8%	23.8%	18.0%	19.3%	24.1%

The consolidated results depicted in Figure 3 show that the Integrated Approach (24.1%) and the Stakeholder-Based Approach (23.8%) are the most preferred methods for addressing ESG priorities, followed by the Compliance-Based Approach (19.3%), the Opportunity-Based Approach (18.0%), and the Risk-Based Approach (14.8%). This analysis demonstrates that different approaches to ESG prioritization can lead to different outcomes, and the most comprehensive and effective strategy may involve a combination of these approaches. The Integrated Approach, which considers multiple perspectives and considerations, appears to be the most favored method for addressing ESG priorities in this context. By understanding the relative importance of each ESG factor and the preferences for different prioritization approaches, organizations can develop more targeted and effective strategies to improve their overall sustainability performance, tailoring their efforts to align with the most critical aspects identified through AHP analysis.

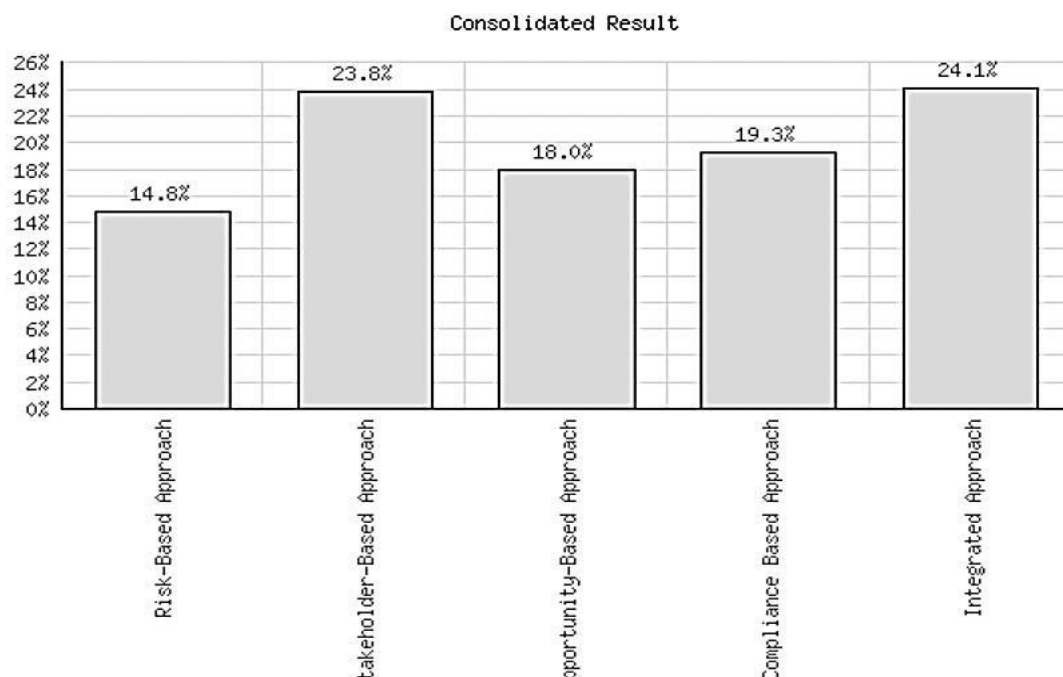


Figure 3. Consolidated Result

Discussion

Based on the alternative results, XYZ Company adopts various approaches to materialize and address ESG issues:

1. The Risk-Based Approach (14.8%) involves assessing potential risks and developing strategies to mitigate or manage them.
2. The Stakeholder-Based Approach (23.8%) considers the needs and expectations of various stakeholders in decision-making processes.
3. The Opportunity-Based Approach (18.0%) seeks opportunities to enhance ESG performance through innovation and development.
4. The Compliance-Based Approach (19.3%) ensure that companies meet all regulatory requirements and standards.
5. Integrated Approach (24.1%) combines all the above approaches to create a comprehensive ESG strategy.

The analysis of various approaches to materializing and addressing ESG issues within corporate strategies reveals that the Integrated Approach is the most suitable strategy, with a weight of 24.1%. This approach effectively combines elements from other methods to offer a comprehensive framework that balances environmental, social, and governance priorities. The Integrated Approach places a high emphasis on water and waste management (0.300), community development (0.298), energy efficiency (0.290), and shifting to cleaner energy sources (0.287), demonstrating a holistic commitment to sustainability, ethical practices, and stakeholder engagement. By addressing all aspects of ESG in a balanced and effective manner, the Integrated Approach ensures long-term sustainability and stakeholder satisfaction.

The Stakeholder-Based Approach follows closely, with a weight of 23.8%, highlighting the importance of aligning corporate strategies with the expectations and needs of various stakeholders. This approach prioritizes stakeholder engagement (0.322), collaboration and partnership (0.330), quality of ESG reporting (0.296), and stakeholder involvement in communication (0.291). By focusing on these key areas, companies can effectively address stakeholders' interests and maintain transparency. However, the Stakeholder-Based Approach may place less emphasis on compliance (0.153), occupational health and safety (0.190), business ethics and anticorruption (0.224), and investment in environmentally friendly technology (0.181).

The Compliance-Based Approach that emphasizes adhering to regulations and standards, which are crucial, may not be sufficient alone to drive comprehensive ESG performance. With a weighting of 19.3%, this approach prioritizes occupational health and safety (0.317), compliance (0.302), transparency and accountability (0.286), and business ethics and anticorruption (0.286). However, it may give less attention to collaboration and partnerships (0.096), sustainable product and service development (0.114), investment in environmentally friendly technology (0.119), and community development (0.134). To address this issue, companies can collaborate and align with stakeholders to track progress toward their ESG goals and targets and demonstrate compliance with evolving regulatory requirements.

The Opportunity-Based Approach, with a weight of 18.0%, focuses on innovation and development that can offer growth potential, but it lacks risk management and compliance aspects. This approach prioritizes investments in environmentally friendly technology (0.371), sustainable product and service development (0.302), shifting to cleaner energy sources (0.286), and energy efficiency (0.222). However, it may give less weight to transparency and accountability (0.096), business ethics and anti-corruption (0.088), compliance (0.092), and occupational health and safety (0.105). Consequently, companies must demonstrate strong risk management, innovation, and

adaptation capabilities to be more resilient when facing market volatility. Companies must identify and manage ESG risks effectively to navigate evolving market dynamics and capitalize on emerging opportunities to generate potential returns for investors.

The Risk-Based Approach (14.8%) prioritizes risk mitigation, which is essential for safeguarding against potential ESG issues. However, it may overlook broader stakeholder and opportunity-driven initiatives. This approach focuses on compliance (0.267), business ethics and anticorruption (0.252), transparency and accountability (0.199), and occupational health and safety (0.213). It places less emphasis on carbon footprint reduction and offset (0.100), energy efficiency (0.111), shifting to cleaner energy sources (0.071), and diversity and inclusion (0.109).

The analysis of various approaches to materializing and addressing ESG issues within corporate strategies reveals that the Integrated Approach, with a weight of 24.1%, is the most suitable strategy. This approach combines elements from other methods to create a balanced framework that prioritizes environmental, social, and governance concerns. It emphasizes water and waste management, community development, energy efficiency, and transitioning to cleaner energy sources, demonstrating a comprehensive commitment to sustainability, ethical practices, and stakeholder engagement. The Stakeholder-Based Approach, closely following with a weight of 23.8%, highlights the importance of aligning strategies with stakeholder needs but may underemphasize compliance and other critical areas. The Compliance- and Opportunity-Based Approaches, with weights of 19.3% and 18.0%, respectively, focus on regulatory adherence and innovation but may fail to deliver holistic ESG performance. The Risk-Based Approach, with a weight of 14.8%, prioritizes risk mitigation but may overlook broader stakeholder and innovation-driven initiatives. Overall, the Integrated Approach stands out as the most effective method for ensuring long-term sustainability and stakeholder satisfaction.

Investing in advanced technologies for efficient water usage and waste reduction, coupled with the implementation of comprehensive recycling and waste management programs, is a crucial step for XYZ to address its ESG concerns. By monitoring and reporting on water usage and waste metrics, a company can demonstrate its commitment to environmental sustainability and accountability (Bhandari et al., 2022; D'Amato et al., 2023). Given the significance of water conservation and waste management in Indonesia, XYZ Company's efforts in this area could contribute to the country's sustainability goals and position the company as a responsible corporate citizen (Government of Indonesia, 2021). Moreover, by integrating these practices into its operations, XYZ can not only reduce its environmental footprint but also potentially realize cost savings through increased efficiency and resource optimization (Kim & Li, 2021).

Energy audits and investments in energy-efficient technologies are essential steps for XYZ Company to reduce its carbon footprint and align with its net-zero emissions target (XYZ Company, 2020a; XYZ Company, 2021). By promoting energy-saving practices among its employees and developing a roadmap for transitioning to renewable energy sources, the company can further demonstrate its commitment to sustainability (IEA, 2021). Collaborating with energy providers in Indonesia to explore cleaner energy options, such as solar, wind, biofuels, and hydrogen, can help XYZ Company tap into the country's growing renewable energy market and contribute to the nation's sustainability objectives (IRENA, 2021; REN21, 2021). These efforts not only address critical ESG concerns but also position XYZ Company as a leader in the energy transition, potentially opening up new business opportunities and enhancing its reputation among stakeholders (Cesarone et al., 2022; Edmans, 2023).

Designing products with sustainability in mind and offering services that promote sustainable practices to customers are crucial aspects of XYZ Company's ESG strategy (XYZ Company, 2021). By continuously improving the sustainability profile of its products based on

feedback and new insights, the company can demonstrate its commitment to reducing its environmental impact and meeting the evolving needs of its customers (Xu & Liu, 2023; Yuen et al., 2022). In the context of Indonesia, developing sustainable products and services that cater to the country's growing demand for environmentally friendly solutions can help XYZ Company establish a strong presence in the market and contribute to the nation's sustainability goals (Government of Indonesia, 2021; IEA, 2021). Moreover, by engaging customers in sustainable practices and empowering them to reduce their own emissions, XYZ Company can foster a culture of sustainability and create long-term value for all stakeholders (XYZ Company, 2020a; XYZ Company, 2021).

CONCLUSIONS

This study combines qualitative and quantitative analysis that consists of interviews, thematic analysis, and the AHP to materializing and addressing ESG issues in corporate strategies. The results of the interviews and thematic analysis indicate that the company has a strong commitment to incorporating ESG principles into its operations and decision-making processes. This can be seen from the company's target of minimizing its carbon footprint by prioritizing waste reduction, energy efficiency, and water conservation. Furthermore, the company prioritizes employee welfare, safety, and diversity and actively participates in local communities.

In addition, the AHP results reveal that the Integrated Approach is the most suitable approach for materializing and addressing ESG issues within corporate strategies, with a weight of 24.1%. This approach effectively combines elements from other methods, offering a comprehensive framework that balances environmental, social, and governance priorities, with a high emphasis on water and waste management, community development, energy efficiency, and shifting to cleaner energy sources, demonstrating a holistic commitment to sustainability, ethical practices, and stakeholder engagement. The Stakeholder-Based Approach, with a weight of 23.8%, is also considered important, highlighting the significance of stakeholder engagement and collaboration, as well as enhancing ESG transparency and communication, but may place less emphasis on compliance, occupational health and safety, business ethics, and investment in environmentally friendly technology. Meanwhile, the Compliance-Based Approach and the Opportunity-Based Approach show lower effectiveness than the previous two approaches.

In light of the theoretical implications, this study contributes to an extensive understanding of ESG performance evaluation, implementation strategies, and the role of sustainability in promoting long-term business success while positively contributing to the environment and society. In terms of practical implications, by addressing all aspects of ESG in a balanced and effective manner, the results of this study can help companies align their operational practices with broader societal and environmental aspects. As a result, companies can secure consumer and stakeholder trust, satisfaction, and loyalty, which can eventually enhance the company's reputation and ensure long-term business sustainability.

LIMITATION & FURTHER RESEARCH

While this research provides valuable insights into evaluating XYZ Company's ESG performance and prioritizing various ESG factors, it is limited by its focus on a single subsidiary, potential biases from employee interviews, a lack of implementation details, subjective judgments in the quantitative AHP analysis, and a static view that may not capture evolving ESG priorities over time. Future research could expand the scope to multiple XYZ Company entities or industries for comparative analyses, investigate the direct impact of ESG on financial metrics, explore emerging technologies for enhanced ESG measurement and reporting, examine effective ESG governance models and stakeholder engagement, integrate climate adaptation strategies, and incorporate

circular economy principles into ESG frameworks. Addressing these limitations and pursuing diverse research avenues deepens the understanding of ESG performance evaluation, implementation strategies, and the role of sustainability in driving long-term business success while contributing to environmental and societal well-being.

REFERENCES

- Aggarwal, V. S., & Jha, A. (2019). *Pressures of CSR in India: an institutional perspective*. *Journal of Strategy and Management*, 12(2), 227-242. <https://doi.org/10.1108/JSMA-10-2018-0110>
- Alareeni, B. A., & Hamdan, A. (2020). ESG impact on performance of US S&P 500-listed firms. *Corporate Governance (Bingley)*, 20(7), 1409-1428. <https://doi.org/10.1108/CG-06-2020-0258>
- Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22(2), 119-127. <https://doi.org/10.1016/j.bir.2022.11.006>
- Bagh, T., Khan, M. A., Azad, T., Saddique, S., & Khan, M. A. (2017). The corporate social responsibility and firms' financial performance: evidence from financial sector of Pakistan. *International Journal of Economics and Financial Issues*, 7(2), 301-308.
- Bhandari, K. R., Ranta, M., & Salo, J. (2022). The resource-based view, stakeholder capitalism, ESG, and sustainable competitive advantage: The firm's embeddedness into ecology, society, and governance. *Business Strategy and the Environment*, 31(4), 1525-1537. <https://doi.org/10.1002/bse.2967>
- Brown, M., Goodman, A., Peters, A., Ploubidis, G., Aida, S., Silverwood, R., & Smith, K. (2020). COVID-19 survey in five national longitudinal studies: Waves 1 and 2: User guide (version 2).
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1), 98-115. <https://doi.org/10.1108/MEQ-12-2017-0149>
- Carroll, A. B. (1999). Corporate social responsibility: Evolution of a definitional construct. *Business and Society*, 38(3). <https://doi.org/10.1177/000765039903800303>
- Cesarone, F., Martino, M. L., & Carleo, A. (2022). Does ESG impact really enhance portfolio profitability? *Sustainability (Switzerland)*, 14(4), 2050. <https://doi.org/10.3390/su14042050>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design (Fourth edi)*. Sage Publications.
- Creswell, J. W., & Tashakkori, A. (2007). *Journal of Mixed Methods*. *Sage*, 1(4), 303-308.
- D'Amato, V., D'Ecclesia, R., & Levantesi, S. (2024). Firms' profitability and ESG score: A machine learning approach. *Applied Stochastic Models in Business and Industry*, 40(2), 243-261. <https://doi.org/10.1002/asmb.2758>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160. <https://doi.org/10.2307/2095101>
- Dos Santos, P. H., Neves, S. M., Sant'Anna, D. O., De Oliveira, C. H., & Carvalho, H. D. (2019). The analytic hierarchy process supporting decision making for sustainable development: An overview of applications. *Journal of cleaner production*, 212, 119-138. <https://doi.org/10.1016/j.jclepro.2018.11.270>
- Dutu, R. (2016). Challenges and policies in Indonesia's energy sector. *Energy Policy*, 98, 513-519. <https://doi.org/10.1016/j.enpol.2016.09.009>

- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11). <https://doi.org/10.1287/mnsc.2014.1984>
- Eccles, R. G., & Klimenko, S. (2019). The investor revolution. *Harvard Business Review*, 97, 106-116
- Edmans, A. (2023). The end of ESG. *Financial Management*, 52(1). <https://doi.org/10.1111/fima.12413>
- Epstein, M. J., & Rejc Buhovac, A. (2014). A New Day for Sustainability. *Strategic finance*, 96(1).
- Esty, D. C., & Winston, A. (2009). *Green to gold: How smart companies use environmental strategy to innovate, create value, and build competitive advantage*. John Wiley & Sons.
- Etzion, D., & Ferraro, F. (2010). The role of analogy in the institutionalization of sustainability reporting. *Organization Science*, 21(5), 1092-1107. <https://doi.org/10.1287/orsc.1090.0494>
- Fowler Jr, V. L. (2023). *The Impact of Leadership Support on Morale Among Human Resource Practitioners: A Quantitative Study* (Doctoral dissertation, Saint Leo University).
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance and Investment*, 5(4), 210-233. <https://doi.org/10.1080/20430795.2015.1118917>
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. sage.
- Hendiani, S., Liao, H., Bagherpour, M., Tvaronavičiene, M., Banaitis, A., & Antucheviciene, J. (2020). Analyzing the status of sustainable development in the manufacturing sector using multi-expert multi-criteria fuzzy decision-making and integrated triple bottom lines. *International Journal of Environmental Research and Public Health*, 17(11), 3800. <https://doi.org/10.3390/ijerph17113800>
- Hourneaux, F., Gabriel, M. L. S., & Gallardo-Vázquez, D. A. (2018). Triple bottom line and sustainable performance measurement in industrial companies. *Revista de Gestao*, 25(4), 413-429. <https://doi.org/10.1108/REGE-04-2018-0065>
- Ibrahim, H., Elsayed, M. S., Moustafa, W. S., & Abdou, H. M. (2023). Functional analysis as a method on sustainable building design: A case study in educational buildings implementing the triple bottom line. *Alexandria Engineering Journal*, 62, 63-73. <https://doi.org/10.1016/j.aej.2022.07.019>
- IESR. (2022). Indonesia energy transition outlook 2023 tracking progress of energy transition in Indonesia: Pursuing energy security in the time of transition.
- Ikram, M., Zhang, Q., & Sroufe, R. (2020). Developing integrated management systems using an AHP-Fuzzy VIKOR approach. *Business Strategy and the Environment*, 29(6), 2265-2283. <https://doi.org/10.1002/bse.2501>
- Johnson, B. T., & Hennessy, E. A. (2019). Systematic reviews and meta-analyses in the health sciences: Best practice methods for research syntheses. *Social Science & Medicine*, 233, 237-251. <https://doi.org/10.1016/j.socscimed.2019.05.035>
- Khan, M., Serafeim, G., & Yoon, A. (2016). Corporate sustainability: First evidence on materiality. *Accounting Review*, 91(6). <https://doi.org/10.2308/accr-51383>
- Kim, S., & Li, Z. (2021). Understanding the impact of ESG practices in corporate finance. *Sustainability*, 13(7), 3746. <https://doi.org/10.3390/su13073746>
- King, N., & Brooks, J. (2018). Thematic analysis in organisational research. *The SAGE handbook of qualitative business and management research methods: Methods and challenges*, 219-236.
- Kumar, P., Singh, R. K., & Kumar, V. (2021). Managing supply chains for sustainable operations in the era of industry 4.0 and circular economy: Analysis of barriers. *Resources, conservation and recycling*, 164, 105215. <https://doi.org/10.1016/j.resconrec.2020.105215>
- Kulachinskaya, A., Akhmetova, I. G., Kulkova, V. Y., & Ilyashenko, S. B. (2020). The challenge of the

- energy sector of Russia during the 2020 covid-19 pandemic through the example of the republic of tatarstan: Discussion on the change of open innovation in the energy sector. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 60. <https://doi.org/10.3390/JOITMC6030060>
- Larrinaga, C., Rossi, A., Luque-Vilchez, M., & Núñez-Nickel, M. (2020). Institutionalization of the contents of sustainability assurance services: A comparison between Italy and United States. *Journal of Business Ethics*, 163(1), 67-83. <https://doi.org/10.1007/s10551-018-4014-z>
- Linnenluecke, M. K., & Griffiths, A. (2010). Corporate sustainability and organizational culture. *Journal of world business*, 45(4), 357-366. <https://doi.org/10.1016/j.jwb.2009.08.006>
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2). <https://doi.org/10.1086/226550>
- Milne, M. J., & Gray, R. (2013). W(h)ither ecology? The triple bottom line, the global reporting initiative, and corporate sustainability reporting. *Journal of Business Ethics*, 118(1), 13-29. <https://doi.org/10.1007/s10551-012-1543-8>
- Molina-Azorín, J., & Cameron, R. (2010). A review of the use of mixed methods in organisational research.
- Muñoz-Pascual, L., Curado, C., & Galende, J. (2019). The triple bottom line on sustainable product innovation performance in SMEs: A mixed methods approach. *Sustainability*, 11(6), 1689. <https://doi.org/10.3390/su11061689>
- Montiel, I., & Delgado-Ceballos, J. (2014). Defining and measuring corporate sustainability: Are we there yet?. *Organization & Environment*, 27(2), 113-139. <https://doi.org/10.1177/1086026614526413>
- Morioka, S. N., & de Carvalho, M. M. (2016). A systematic literature review towards a conceptual framework for integrating sustainability performance into business. *Journal of cleaner production*, 136, 134-146. <https://doi.org/10.1016/j.jclepro.2016.01.104>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, 16(1), 1609406917733847. <https://doi.org/10.1177/1609406917733847>
- Owusu-Manu, D.-G., Sackey, D. M., Osei-Asibey, D., Kyerewah Agyapong, R., & John Edwards, D. (2022). Improving women's energy access, rights and equitable sustainable development: a Ghanaian perspective. *Ecofeminism and Climate Change*, 3(1), 23-40. <https://doi.org/10.1108/efcc-05-2021-0009>
- Patton, M. Q. (2015). The sociological roots of utilization-focused evaluation. *The American Sociologist*, 46(4), 457-462. <https://doi.org/10.1007/s12108-015-9275-8>
- Porter, M. E., & Kramer, M. R. (2006). Strategy & society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12). <https://doi.org/10.1108/sd.2007.05623ead.006>
- Porter, M. E., & Van Der Linde, C. (2017). Green and competitive: Ending the stalemate. *Corporate Environmental Responsibility*, October, 47-60. [https://doi.org/10.1016/0024-6301\(95\)99997-e](https://doi.org/10.1016/0024-6301(95)99997-e)
- Rasolofo-Distler, F. (2022). Institutional pressure and real estate balanced scorecard indicators. *Sustainability Accounting, Management and Policy Journal*, 13(4), 826-857. <https://doi.org/10.1108/SAMPJ-04-2021-0125>
- Saaty, T. L. (2008). Decision making with the analytic hierarchy process. *International journal of services sciences*, 1(1), 83-98. <https://doi.org/10.1504/IJSSCI.2008.017590>
- Saaty, T. L., & Vargas, L. G. (2012). The possibility of group choice: pairwise comparisons and

- merging functions. *Social Choice and Welfare*, 38(3), 481-496. <https://doi.org/10.1007/s00355-011-0541-6>
- Sequeira, M., Hilletofth, P., & Adlemo, A. (2021). AHP-based support tools for initial screening of manufacturing reshoring decisions. *Journal of Global Operations and Strategic Sourcing*, 14(3), 502-527. <https://doi.org/10.1108/JGOSS-07-2020-0037>
- Singhania, M., & Saini, N. (2023). Institutional framework of ESG disclosures: comparative analysis of developed and developing countries. *Journal of Sustainable Finance and Investment*, 13(1), 516-559. <https://doi.org/10.1080/20430795.2021.1964810>
- Strine, L. E., Smith, K. M., & Steel, R. S. (2021). Caremark and ESG, perfect together: A practical approach to implementing an integrated, efficient, and effective caremark and EESG strategy. *Iowa Law Review*, 106(4), 1885-1922.
- Székely, F., & Knirsch, M. (2005). Responsible leadership and corporate social responsibility: Metrics for sustainable performance. *European Management Journal*, 23(6), 628-647. <https://doi.org/10.1016/j.emj.2005.10.009>
- Testa, F., Boiral, O., & Iraldo, F. (2018). Internalization of environmental practices and institutional complexity: Can stakeholders pressures encourage greenwashing?. *Journal of Business Ethics*, 147, 287-307. <https://doi.org/10.1007/s10551-015-2960-2>
- Verwaal, E., Klein, M., & La Falce, J. (2022). Business model involvement, adaptive capacity, and the triple bottom line at the base of the pyramid. *Journal of Business Ethics*, 181(3), 607-621. <https://doi.org/10.1007/s10551-021-04934-w>
- Wong, L. W., Leong, L. Y., Hew, J. J., Tan, G. W. H., & Ooi, K. B. (2020). Time to seize the digital evolution: Adoption of blockchain in operations and supply chain management among Malaysian SMEs. *International Journal of Information Management*, 52, 101997. <https://doi.org/10.1016/j.ijinfomgt.2019.08.005>
- Xu, S., & Woo, D. J. (2022). Key players in Corporate Social Responsibility (CSR) institutionalization: An analysis of multinational companies' interorganizational positioning via CSR reports. *Management Communication Quarterly*, 37(1). <https://doi.org/10.1177/08933189221095770>
- Xu, X., & Liu, Z. (2023). ESG, cultural distance and corporate profitability: Evidence from Chinese multinationals. *Sustainability*, 15(8), 6771. <https://doi.org/10.3390/su15086771>
- Yuen, M. K., Ngo, T., Le, T. D. Q., & Ho, T. H. (2022). The environment, social and governance (ESG) activities and profitability under COVID-19: Evidence from the global banking sector. *Journal of Economics and Development*, 24(4), 345-364. <https://doi.org/10.1108/jed-08-2022-0136>
- Yun, J., & Lee, J. (2022). Analysis of the relationship between corporate CSR investment and business performance using ESG Index—The use-case of Korean companies. *Sustainability*, 14(5), 2911. <https://doi.org/10.3390/su14052911>
- Zumente, I., & Bistrova, J. (2021). ESG importance for long-term shareholder value creation: Literature vs. practice. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), 127. <https://doi.org/10.3390/joitmc7020127>
- Zumente, I., & Lăce, N. (2021). ESG rating—necessity for the investor or the company? *Sustainability*, 13(16), 8940. <https://doi.org/10.3390/su13168940>