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Green Management: Integrating Environmental Sustainability into Business Operations

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Abstract

ABSTRACT

Background of study: Environmental sustainability has become an important concern for modern organizations as environmental challenges such as climate change, pollution, and resource depletion continue to intensify. Businesses are increasingly expected to adopt environmentally responsible practices that reduce ecological impact while maintaining operational efficiency. Green management has emerged as a strategic approach that integrates environmental considerations into business operations, including production processes, resource management, and supply chain activities.

Aims and scope of paper: This study aims to examine how green management practices influence environmental performance, operational efficiency, and organizational sustainability in business operations.

Methods: The study employed a descriptive research design using both primary and secondary data sources. Primary data were collected through structured questionnaires distributed to 120 employees across three organizations implementing green management practices. Secondary data were obtained from sustainability reports, environmental audits, journals, and corporate records. Data were analyzed using descriptive statistics, including percentages, mean values, and trend analysis, to evaluate environmental performance indicators between 2020 and 2022.

Result: The findings show significant improvements in environmental performance following the implementation of green management practices. Energy efficiency increased from 65 in 2020 to 82 in 2022, while waste reduction rose from 10% to 24%. Carbon emissions decreased from 1500 tCO_2 to 950 tCO_2. Employee awareness and support for sustainability initiatives also increased, contributing to improved productivity, cost savings, and stakeholder satisfaction.

Conclusion: The study concludes that green management significantly enhances environmental sustainability and organizational performance. Integrating sustainable practices into business operations can reduce environmental impact while strengthening long-term competitiveness and stakeholder trust.

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INTRODUCTION

Green management, often referred to as environmental management or ecological management, has become an essential component of modern organizational strategy. As environmental concerns

continue to escalate globally, businesses face increasing pressure to adopt practices that minimize ecological harm and promote long-term sustainability. Climate change, biodiversity loss, resource depletion, pollution, and waste accumulation have created an urgent need for responsible business conduct (Sarfraz et al., 2018). Stakeholders—including governments, consumers, investors, and communities—now expect organizations to operate in ways that protect the environment, conserve resources, and reduce carbon footprints. Consequently, green management has evolved from a voluntary gesture of corporate responsibility into a strategic business requirement for achieving competitive advantage in a rapidly transforming global economy (Al-otaibi, 2024).

The fundamental premise of green management is the integration of environmental considerations into all aspects of business operations. This includes product design, resource procurement, manufacturing processes, supply chain management, distribution, waste disposal, and corporate governance (Durrani et al., 2024). Historically, businesses viewed environmental protection as an external obligation driven by government regulations. However, contemporary views emphasize that environmental sustainability can be a catalyst for innovation, efficiency, and long-term profitability. Companies across industries have recognized that adopting environmentally responsible practices not only reduces ecological risks but also enhances operational performance by lowering energy consumption, minimizing waste, and optimizing resource use. Therefore, green management is a strategic approach that aligns business goals with environmental stewardship (Muhshin et al., 2024).

One of the primary drivers pushing organizations toward green management is the growing regulatory pressure from national and international bodies. Governments worldwide have introduced stricter environmental laws, emission standards, and sustainability reporting requirements aimed at reducing environmental degradation. Compliance with these regulations is not optional; failure to meet environmental standards can result in financial penalties, legal sanctions, and reputational damage (Favi & Marconi, 2025). As a result, organizations are incentivized to implement proactive green policies that ensure compliance while also creating opportunities for operational improvements. Environmental management systems such as ISO 14001 provide organizations with structured frameworks to systematically monitor, evaluate, and enhance their environmental performance (Luyang, 2025).

In addition to regulatory factors, consumer behaviour has significantly shifted in favor of environmentally responsible organizations. Modern consumers are increasingly aware of the environmental footprint associated with the products they buy. They prefer brands that demonstrate commitment to sustainability, use eco-friendly materials, and adopt ethical production processes (Islam, 2017). This shift has created market demand for green products and services, compelling businesses to integrate sustainability into branding and marketing strategies. Companies that demonstrate authentic green practices often experience higher customer loyalty, stronger brand reputation, and increased market share. Conversely, organizations that ignore environmental concerns risk losing customers, especially younger, environmentally conscious demographics (Dewi et al., 2025).

Another key factor contributing to the rise of green management is the influence of investors and financial institutions. Environmental, Social, and Governance (ESG) criteria have become critical measures of long-term business viability. Investors increasingly evaluate companies based on their environmental performance, carbon management strategies, and sustainability reporting. Firms that score high on ESG metrics attract greater investment, enjoy lower capital costs, and experience stronger market valuation (Raheem et al., 2023). Financial institutions now require companies to disclose climate-related risks, demonstrating how environmental factors may impact long-term financial stability. Thus, green management has become a vital component of corporate governance and risk management frameworks (Kholida et al., 2025). From an operational perspective, green management enhances efficiency, lowers costs, and drives innovation. Businesses that adopt energy-efficient technologies, optimize resource usage, reduce waste, and implement recycling systems can significantly reduce operational expenses (Parikh et al., 2023). For example, energy-efficient

machinery and renewable energy systems lower electricity costs, while waste minimization practices reduce production expenses. Lean manufacturing, circular economy models, and eco-design principles have gained popularity as methods for reducing resource dependency and promoting sustainable production cycles (Setyadi & Pawirosumarto, 2025).

Green management also encourages organizations to redesign products and processes in ways that minimize environmental impact while improving quality and customer satisfaction (Liang et al., 2025). Technological advancements have played a vital role in facilitating the adoption of green management practices. Digital tools such as big data analytics, artificial intelligence, cloud computing, and Internet of Things (IoT) are being used to monitor environmental performance, predict sustainability trends, and optimize resource efficiency. Smart sensors help organizations track real-time energy consumption, water usage, and emission levels (Wang et al., 2021). Data analytics enables companies to identify inefficiencies, forecast risks, and make informed decisions related to sustainability. Additionally, green technologies such as solar power, wind energy, electric vehicles, biodegradable materials, and waste-to-energy systems offer innovative solutions for reducing environmental impact (Majumdar et al., 2020).

Green management also supports long-term business resilience by reducing exposure to environmental risks. Climate change poses significant threats to global supply chains, natural resources, infrastructure, and financial markets. Extreme weather events, water scarcity, and resource depletion can disrupt operations and increase operational costs. Companies that rely heavily on natural resources face higher vulnerability to climate-related disruptions. By adopting green management practices, organizations can mitigate these risks through diversification of energy sources, sustainable sourcing of raw materials, water conservation, and pollution control measures (Yulianingrum & Hasmiati, 2025). This resilience strengthens an organization's capacity to withstand environmental uncertainties and ensures continuity of operations. Moreover, green management enhances organizational culture and employee engagement. Employees increasingly prefer to work for companies that demonstrate environmental responsibility and ethical corporate values. Organizations that promote sustainability often report higher job satisfaction, increased employee morale, and improved retention rates. Participation in green initiatives, such as energy-saving campaigns, recycling programs, and corporate social responsibility (CSR) projects, fosters collaboration, creativity, and shared purpose among employees. A strong sustainability culture not only enhances internal performance but also strengthens the organization's brand identity and external relationships (Zemite et al., 2024).

Green management also contributes to national and global sustainability goals. Governments worldwide encourage businesses to adopt green practices as part of broader environmental protection strategies. International agreements such as the Paris Climate Agreement call for significant reductions in greenhouse gas emissions, and businesses play a crucial role in achieving these targets (Holly & Schild, 2025). Organizations that adopt green practices contribute to environmental conservation, community development, and sustainable economic growth. By aligning with global sustainability goals, businesses demonstrate social responsibility, build stakeholder trust, and participate in global efforts to address pressing environmental challenges. Green management represents a comprehensive and strategic approach to integrating environmental sustainability into business operations. It encompasses regulatory compliance, technological innovation, consumer expectations, resource efficiency, risk management, and corporate culture (Wahyu et al., 2025).

As environmental challenges continue to intensify, businesses must adopt proactive strategies that minimize ecological harm while maximizing economic value. Green management not only supports environmental protection but also enhances competitiveness, strengthens stakeholder relationships, reduces operational costs, and drives long-term resilience (A et al., 2025). Organizations that embrace green management are better positioned for sustainable growth in an increasingly environmentally conscious global marketplace. As such, integrating green management into business

operations is no longer optional—it is essential for ensuring future success and organizational sustainability (Pouresmaieli et al., 2023).

Review of Literature

Environmental sustainability has become a central focus in management research as organizations navigate growing ecological challenges, regulatory pressures, and stakeholder expectations. Early literature on environmental management emphasized compliance-oriented approaches, where firms implemented pollution control measures primarily to meet legal requirements. However, contemporary research reflects a significant shift toward proactive environmental strategies integrated into corporate planning. Scholars argue that businesses must adopt sustainability not only to mitigate environmental harm but also to enhance long-term competitiveness. The concept of green management emerged from this shift, highlighting the systematic incorporation of environmental considerations into managerial decision-making. Academic discussions emphasize that environmental sustainability encompasses resource conservation, emissions reduction, green procurement, eco-design, waste minimization, and environmental reporting. The triple bottom line (TBL) framework, introduced by John Elkington, remains foundational in the literature by emphasizing economic, environmental, and social performance as the key dimensions of organizational success (Masudin, 2019). Numerous studies highlight that sustainable business models foster innovation by encouraging firms to develop eco-friendly technologies, promote circular economy practices, and redesign operational processes for efficiency. Literature also stresses that green management is influenced by external factors such as stakeholder pressure, regulatory frameworks, and global environmental movements, making sustainability a collective priority rather than an isolated organizational effort (Tantri et al., 2025).

A significant body of literature examines the link between environmental sustainability and organizational performance, providing evidence that green management contributes positively to both financial and non-financial outcomes. Research consistently indicates that adopting environmentally responsible practices reduces operational costs through energy efficiency, material optimization, and waste reduction. Environmental management systems, particularly ISO 14001, have been widely studied for their role in improving environmental performance and enhancing corporate credibility. Studies demonstrate that firms with strong environmental strategies enjoy lower risk exposure, improved operational resilience, and stronger compliance with environmental regulations. Literature also highlights market-driven benefits, as environmentally conscious consumers increasingly prefer sustainable brands. Organizations with visible environmental commitments experience enhanced brand reputation, customer loyalty, and competitive differentiation. Moreover, the integration of sustainability into supply chain management—often termed green supply chain management (GSCM)—has been shown to improve transparency, reduce environmental risks, and support ethical sourcing. Research further emphasizes the financial benefits of sustainability-driven innovations, where firms achieve long-term profitability by reducing resource dependency and diversifying into green product markets. Investors, too, are placing greater emphasis on environmental, social, and governance (ESG) performance, strengthening the business case for environmental management (Haryanto et al., 2025).

Another core theme in the literature focuses on leadership, culture, and organizational readiness for green transformation. Studies highlight that environmental sustainability is most successful when supported by top management commitment. Leadership plays a critical role in setting environmental goals, allocating resources, and fostering a culture of sustainability. Transformational leadership, in particular, has been linked to higher levels of environmental innovation and employee involvement in green initiatives. Research also emphasizes the importance of organizational culture in shaping environmental behavior. A culture that values sustainability encourages employees to adopt green practices, participate in environmental programs, and contribute ideas for process improvement. Several studies explore the role of green human resource management (GHRM), a field dedicated to aligning HR practices with environmental objectives. GHRM practices—such as green training, performance evaluation, and recruitment—promote environmental awareness and skill

development among employees. Literature also stresses the need for environmental education and communication to build an environmentally conscious workforce. Internally, sustainability fosters collaboration, creativity, and shared responsibility. Externally, it strengthens stakeholder relationships, signaling corporate commitment to environmental stewardship (Šostar, 2024).

Despite the widespread recognition of green management's benefits, literature identifies several challenges and barriers to its effective implementation. Financial constraints remain a major limitation, especially for small and medium-sized enterprises (SMEs) that often lack capital for green technologies or sustainable infrastructure. Organizational resistance to change, limited expertise, lack of environmental awareness, and inadequate management support also hinder adoption. Studies reveal that businesses struggle with balancing short-term profitability concerns with long-term sustainability investments. Furthermore, the complexity of measuring environmental performance poses significant challenges. Scholars argue that standardized metrics and reporting frameworks are essential to monitor progress and ensure accountability. Issues such as greenwashing—misleading claims about environmental practices—are highlighted as detrimental to both organizational credibility and stakeholder trust. Nevertheless, literature suggests that technological advancements, digital transformation, government incentives, and global sustainability agreements offer pathways to overcome these challenges. Overall, research consistently concludes that green management is essential for modern organizations seeking long-term resilience, ethical credibility, and sustainable growth (Ratnaningrum et al., 2025).

Green Supply Chain Management (GSCM) as a Strategic Component of Green Management

Green Supply Chain Management (GSCM) has emerged as a crucial element of green management, focusing on reducing environmental impact throughout the entire supply chain—from sourcing and production to distribution and disposal. As organizations recognize the environmental footprint of their supply chain activities, GSCM has become a strategic approach to achieving sustainability goals. It integrates traditional supply chain processes with environmental considerations, aiming to minimize resource consumption, reduce pollution, and enhance ecological efficiency (Voinea et al., 2020). The increasing global emphasis on sustainability has encouraged businesses to adopt environmentally conscious procurement practices. Green procurement involves selecting suppliers based on environmental performance, use of eco-friendly materials, and adherence to sustainability standards. By sourcing from environmentally responsible suppliers, organizations not only minimize ecological harm but also strengthen their sustainability reputation. Supplier collaboration is also a core aspect of GSCM, as firms work closely with partners to develop greener technologies, improve waste management, and enhance resource efficiency (Eltalhi & Ojekemi, 2025).

Green manufacturing, another key component of GSCM, focuses on designing products and production processes that minimize environmental impact. This includes using renewable energy, reducing harmful emissions, adopting lean manufacturing principles, and implementing recycling programs. Eco-design, also known as design for environment (DfE), involves creating products that are energy-efficient, recyclable, durable, and environmentally friendly throughout their life cycle. These innovations reduce production costs and resource use while appealing to environmentally conscious customers (Wiharjo & Ekadjaja, 2024). Transportation and logistics also play a significant role in GSCM. By optimizing routes, using fuel-efficient vehicles, adopting electric fleets, and implementing smart logistics technologies, organizations reduce fuel consumption and greenhouse gas emissions. Green packaging strategies further contribute to sustainability by reducing material waste and promoting biodegradable or recyclable packaging solutions. End-of-life management is another critical aspect of GSCM. Organizations increasingly adopt reverse logistics systems, allowing used products or materials to be returned, recycled, refurbished, or safely disposed of. Reverse logistics supports circular economy models, reducing dependence on virgin materials and minimizing waste (Junaid et al., 2025).

Implementing GSCM offers a range of strategic benefits. Environmentally conscious supply chains lead to cost savings through reduced energy use, waste minimization, and operational efficiency.

GSCM also enhances regulatory compliance, reduces sustainability risks, and improves stakeholder relationships. Companies known for sustainable supply chains enjoy stronger brand loyalty, increased market competitiveness, and better access to global markets—especially as customers and investors prioritize ESG performance. Green Supply Chain Management is an essential strategy within green management that aligns business operations with environmental sustainability. It enhances efficiency, drives innovation, fosters collaboration, and strengthens organizational reputation, making it indispensable for sustainable business success (Kadri et al., 2024).

METHOD

Method

A. Research Design

This study adopts a descriptive research design to examine how green management practices influence organizational sustainability and operational performance. A descriptive design is appropriate because it allows the researcher to observe, analyze, and interpret existing conditions without manipulating variables. The study focuses on understanding current green initiatives, employee perceptions, and measurable environmental outcomes such as energy use, waste reduction, and emissions.

B. Data Collection

Both primary and secondary data were collected. Primary data was obtained through structured questionnaires distributed to employees across three organizations practicing green management. Secondary data was sourced from sustainability reports, environmental audits, government records, journals, and corporate websites. This combination provides a comprehensive view of internal practices and external environmental performance.

C. Sampling Method

A purposive sampling method was used to select respondents knowledgeable about environmental practices within their organizations. A total of 120 participants were selected from management, technical, and operational departments to ensure diverse insights.

D. Research Instruments

The main instrument used was a structured questionnaire containing three sections: Demographic profile, Likert-scale items measuring perceptions of green management practices amd Objective performance indicators. The instrument was validated through pilot testing to ensure clarity and reliability.

E. Data Analysis

Quantitative data was analyzed using descriptive statistics such as mean, percentages, and trend analysis. Environmental performance data for energy usage, waste reduction, and carbon emissions were tabulated and graphically presented. The analysis identifies patterns, correlations, and performance improvements resulting from green management practices.

F. Ethical Considerations

Ethical standards were strictly maintained. Respondents were informed about the purpose of the study and assured that their responses would remain confidential. Participation was voluntary, and no identifying information was collected. Secondary data sources were properly cited. All procedures adhered to research ethics guidelines.

Analysis and Interpretation

A. Analysis

The analysis of data collected from 2020 to 2022 shows a consistent improvement in organizational environmental performance following the implementation of green management practices. Energy consumption, measured in efficiency index points, rose steadily from 65 in 2020 to 82 in 2022. This indicates the successful adoption of energy-efficient technologies and improved operational efficiency. Waste reduction percentages also increased, demonstrating effective recycling systems and resource optimization strategies. Similarly, carbon emissions showed a notable decline, reflecting the organization's transition toward renewable energy sources and eco-friendly manufacturing processes. Employee perception data further strengthens these findings. Awareness of green initiatives increased significantly over the three-year period, suggesting improved internal communication and sustainability training. Moreover, support for eco-friendly practices rose steadily, indicating growing employee engagement in sustainability initiatives. Employees increasingly perceived green management as beneficial not only for the environment but also for workplace efficiency and well-being.

Table 1. Environmental Performance Indicators (2020–2022)

Year	Energy Efficiency Index	Waste Reduction (%)	Carbon Emission (tCO_2)
2020	65	10	1500
2021	74	18	1200
2022	82	24	950

Table 2. Employee Perception Scores (1–5 Scale)

Variable	2020	2021	2022
Awareness of Green Practices	3.1	3.8	4.4
Support for Eco-Initiatives	3.3	4.0	4.6
Perceived Organizational Commitment	3.0	4.1	4.7

Table 3. Organizational Performance Indicators

Indicator	2020	2021	2022
Cost Savings (%)	6	11	17
Productivity Improvement (%)	4	8	13
Stakeholder Satisfaction (%)	58	70	84

Organizational performance indicators also revealed positive outcomes. Operational cost savings increased due to reduced material and energy usage. Productivity improvements suggest that green management encouraged better workflow planning, reduced downtime, and enhanced equipment performance. Stakeholder satisfaction showed a notable rise, indicating heightened appreciation for the organization's commitment to environmental responsibility. Overall, the analysis confirms that green management practices produce measurable improvements across environmental, operational, and perceptual dimensions. The data demonstrates strong alignment between green strategies and business performance, supporting the argument that sustainability and profitability can coexist harmoniously.

B. Interpretation

The data clearly indicates that green management contributes significantly to organizational sustainability and efficiency. The rising energy efficiency index suggests successful implementation of energy-saving machinery, smart monitoring systems, and renewable energy sources. This improvement not only reduces environmental impact but also lowers operating costs, making green investments financially advantageous in the long term. The substantial increase in waste reduction reflects improved waste segregation, recycling programs, and circular economy practices. The adoption of eco-friendly materials and reduction in single-use products further contributed to this

outcome. Reduced carbon emissions across the three years signify effective emission control measures and a shift toward cleaner technologies. These changes demonstrate the organization's progress toward reducing its environmental footprint.

Employee perception trends provide insight into internal cultural transformation. As awareness and support increased, employees became active participants in sustainability initiatives. This suggests that green management fosters a culture of responsibility, motivation, and innovation. A workforce aligned with sustainability values becomes a catalyst for improving environmental outcomes. Organizational performance indicators further reinforce that green management enhances business efficiency. Increased operational cost savings reflect the economic advantage of using fewer resources and optimizing processes. Productivity improvements can be attributed to enhanced working conditions, better equipment performance, and streamlined operations enabled by green initiatives. The growth in stakeholder satisfaction highlights that external stakeholders—customers, suppliers, investors—positively perceive organizations committed to environmental sustainability. The interpretation confirms that green management creates a synergistic effect where environmental improvements drive operational and financial gains. The findings validate the strategic importance of integrating sustainability into business operations.

RESULTS AND DISCUSSION

The results of the study demonstrate that integrating green management practices into business operations leads to significant improvements in environmental performance, operational efficiency, and overall organizational sustainability. Over the three-year analysis period, key environmental indicators—energy efficiency, waste reduction, and carbon emissions—showed continuous positive trends, confirming the effectiveness of green initiatives implemented by the organization. Energy efficiency increased from 65 in 2020 to 82 in 2022, reflecting successful adoption of eco-efficient technologies, process optimization, and renewable energy usage. Waste reduction percentages improved substantially, indicating better waste segregation, recycling practices, and adoption of circular economy principles. Carbon emissions exhibited a steady downward trend, highlighting the impact of emission control measures, improved energy systems, and greener production methods.

The organizational performance indicators further reinforce these findings. Cost savings increased from 6% to 17% over the same period, showing that sustainability initiatives not only reduce environmental impact but also create financial benefits. Reduced consumption of materials, lower energy usage, and improved operational efficiency contributed to these savings. Productivity improvements also rose significantly, reflecting more streamlined workflows and enhanced equipment performance resulting from green practices. These findings suggest that sustainability drives operational excellence by reducing inefficiencies, promoting innovation, and creating healthier working environments. Employee perception scores provide insight into the cultural transformation within the organization. The steady growth in awareness, support for eco-initiatives, and perceived organizational commitment indicates that employees increasingly recognize the value of green management. This internal alignment boosts morale, improves compliance with sustainability strategies, and encourages active participation in green initiatives. When employees perceive sustainability as integral to organizational goals, it fosters a culture of responsibility and continuous improvement. Stakeholder satisfaction also improved considerably, demonstrating the positive external impact of green management. Customers are more likely to trust and support businesses that demonstrate environmental responsibility, while investors prefer firms with strong ESG performance. Enhanced sustainability reporting, transparency in environmental practices, and visible improvements in performance create a strong reputation that attracts stakeholders.

This study confirms that green management is not merely an ethical obligation but a strategic asset. The results clearly demonstrate that environmental sustainability can coexist with cost savings, productivity enhancements, and competitive advantage. Organizations that actively integrate green

management into their operations can achieve long-term resilience, stronger stakeholder relationships, and enhanced market position. Ultimately, the discussion supports the conclusion that sustainability-driven business models are essential for meeting global environmental expectations and ensuring economic viability in a rapidly evolving business landscape.

CONCLUSION

This study concludes that green management plays a vital role in promoting environmental sustainability, operational excellence, and long-term organizational success. The results clearly show that businesses that integrate environmental considerations into their processes experience measurable improvements across several domains, including resource efficiency, cost reduction, waste management, and carbon emission control. Over the three-year analysis period, the organization demonstrated consistent growth in energy efficiency, waste reduction, and emission minimization—indicating that green practices were effectively planned, implemented, and monitored. These results support the growing consensus in management literature that sustainability is indispensable for modern business operations.

The findings emphasize that green management not only benefits the environment but also strengthens internal organizational dynamics. Employees exhibited greater awareness, stronger support for eco-friendly initiatives, and increased trust in management's sustainability commitments. This cultural alignment is crucial because the success of any green initiative depends heavily on employee engagement. A motivated workforce ensures higher compliance, greater creativity, and meaningful contributions toward sustainability goals.

Externally, green management strengthens stakeholder satisfaction by enhancing corporate reputation, increasing customer trust, and improving investor confidence. Organizations with strong environmental commitments tend to perform better in ESG evaluations, making them more attractive to socially responsible investors. The positive performance outcomes seen in cost savings, productivity, and stakeholder approval validate that sustainability contributes to competitive advantage.

In conclusion, green management should be embraced as a strategic necessity rather than a regulatory obligation. It enables organizations to thrive in an environmentally conscious global market by enhancing resilience, reducing risks, and fostering innovation. As environmental challenges intensify, businesses must adopt proactive sustainability strategies to ensure long-term viability. Integrating green management into core business operations is essential for achieving sustainable development, strengthening competitiveness, and contributing positively to global environmental well-being.

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AUTHOR CONTRIBUTION STATEMENT

M.A.K.G. conceptualized the study, designed the research framework, supervised the overall research process, and contributed to the final review of the manuscript. M.Y.Z. conducted data collection and contributed to the literature review and research methodology. A.B.H. performed data analysis,

interpreted the research findings, and assisted in preparing the results section. S.S.R. contributed to manuscript drafting, editing, and final proofreading of the article.

REFERENCES

A, C. N., Putri, I. A., Basjah, F. L., Aini, N. Q., & Mushfiroh, L. (2025). Implementation of ESG Principles as a Corporate Sustainability Strategy : A Literature Study. *Journal of Environmental Economics and Sustainability*, *2*(3), 1–11. https://doi.org/10.47134/jees.v2i3.678

Al-otaibi, A. (2024). Barriers and Enablers for Green Concrete Adoption : A Scientometric Aided Literature Review Approach. *Sustainability*, *16*, 1–20. https://doi.org/10.3390/su16125093

Dewi, N. P. E. A. K., Sumariati, I. D. A. R., & Lilasari, L. N. T. (2025). Implementation of Sustainable Procurement in Purchasing at Hotel X. *Jurnal Ekonomi Kreatif Dan Manajemen Bisnis Digital*, *4*(2), 348–356. https://doi.org/10.55047/jekombital.v4i2.1050

Durrani, N., Raziq, A., Id, T. M., Rehman, M., & Id, K. (2024). Barriers to adaptation of environmental sustainability in SMEs : A qualitative study. *Plos One*, *19*(5), 1–22. https://doi.org/10.1371/journal.pone.0298580

Eltalhi, M., & Ojekemi, O. S. (2025). The Role of Government Support in Adopting Green Supply Chain Management : The Influence of Green Market Orientation and Employee Environmental Commitment in Libya. *Sustainability*, *17*, 1–16. https://doi.org/10.3390/su17073012

Favi, C., & Marconi, M. (2025). Product Eco-Design in the Era of the Circular Economy. *Sustainability*, *17*, 1–7. https://doi.org/10.3390/ su17010213

Haryanto, A., Santoso, A. D., Hanif, M., Ihsan, I. M., Oktivia, R., Prayitno4, J., Tridakusumah, A. C., Pebriyanti, V., Triyono, S., Daulay, H., Irawati, N., Mawardi, M. I., Sundari, S., Panggabean, L. P., & Indrawanto, C. (2025). Strategies for sustainable behavior and emission reduction through individual car - bon footprint analysis. *Global Journal of Environmental Science and Management (GJESM)*, *11*(1), 243–260. https://doi.org/10.22034/gjesm.2025.01.15

Holly, F., & Schild, C. (2025). Concepts , Strategies and Business Models of the Circular Economy for the Manufacturing Industry : A Systematic Literature Review. *Procedia CIRP*, *135*, 432–437. https://doi.org/10.1016/j.procir.2024.12.056

Islam, M. (2017). Do Sustainable Procurement Practices Improve Organizational Performance ? *Sustainability*, *9*, 1–17. https://doi.org/10.3390/su9122281

Junaid, A., Nasir, A., Khan, S., Munir, F., & Li, G. (2025). Acta Psychologica Seeds of sustainability in organizations : Green HRM and employee engagement as a cultivators of green branding and consumer trust. *Acta Psychologica*, *260*(August), 105648. https://doi.org/10.1016/j.actpsy.2025.105648

Kadri, M. H., Adzrin, R., Ahmad, R., & Mara, U. T. (2024). The Influence of Sustainability Reporting in Enhancing Firm Value. *Information Management and Business Review (ISSN)*, *16*(3), 257–266. https://doi.org/10.22610/imbr.v16i3(I).3803

Kholida, N., Hapsari, L., & Hikmah, I. N. (2025). The Impact of ESG (Environmental , Social , Governance) Initiatives on Investment Decisions in the Indonesian Capital Market. *Jurnal Ilmiah Manajemen, Ekonomi Dan Bisnis*, *4*(2), 40–51. https://doi.org/10.51903/rt9t5k70

Liang, H., Hussain, M., & Iqbal, A. (2025). The Dynamic Role of Green Innovation Adoption and Green Technology Adoption in the Digital Economy : The Mediating and Moderating Effects of Creative Enterprise and Financial Capability. *Sustainability*, *17*, 1–28. https://doi.org/10.3390/su17073176

Luyang. (2025). Eco-Friendly Product Development: Managing Sustainability in Product Lifecycle.

Journal of Lifestyle & SDG'S Review, *5*, 1–31. https://doi.org/10.47172/2965-730X.SDGsReview.v5.n05.pe06603

Majumdar, A., Kumar, S., & Govindan, K. (2020). Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information. *Sustainable Production and Consumption*, *28*(January), 543–555. https://doi.org/10.1016/j.spc.2021.06.021

Masudin, I. (2019). A Literature Review on Green Supply Chain Management Adoption Drivers. *Jurnal Ilmiah Teknik Industri*, *8*(2). https://doi.org/10.23917/jiti.v18i2.7826

Muhshin, M., Khan, A., Alam, J., Saha, S., & Sayem, A. (2024). Heliyon Critical barriers to adopt sustainable manufacturing practices in medium-sized ready-made garment manufacturing enterprises and their mitigation strategies. *Heliyon*, *10*(20), e39195. https://doi.org/10.1016/j.heliyon.2024.e39195

Parikh, A., Kumari, D., & Johann, M. (2023). The impact of environmental , social and governance score on shareholder wealth : A new dimension in investment philosophy. *Cleaner and Responsible Consumption Journal*, *8*(January), 1–7. https://doi.org/10.1016/j.clrc.2023.100101

Pouresmaieli, M., Ataei, M., Nouri, A., & Barabadi, A. (2023). Results in Engineering Integration of renewable energy and sustainable development with strategic planning in the mining industry. *Results in Engineering*, *20*(September), 101412. https://doi.org/10.1016/j.rineng.2023.101412

Raheem, R., Akbar, W., Aijaz, M., Ali, Z., Ahmed, F., & Parmar, V. (2023). Heliyon The role of green innovation on environmental and organizational performance : Moderation of human resource practices and management commitment. *Heliyon*, *9*(January), 1–19. https://doi.org/10.1016/j.heliyon.2022.e12679

Ratnaningrum, R., Hermawan, D., Susilo, B. W., & Khaq, Z. D. (2025). The Effect of Environmental Costs and Profitability on Environmental Performance. *Journal of Management and Informatics (JMI)*, *4*(2), 844–858. https://doi.org/10.51903/jmi.v4i2.214

Sarfraz, M., Qun, W., Hui, L., & Abdullah, M. I. (2018). Environmental Risk Management Strategies and the Moderating Role of Corporate Social Responsibility in Project Financing Decisions. *Sustainability*, *10*, 1–17. https://doi.org/10.3390/su10082771

Setyadi, A., & Pawirosumarto, S. (2025). Embedding Circular Operations in Manufacturing : A Conceptual Model for Operational Sustainability and Resource Efficiency. *Sustainability*, *17*, 1–29. https://doi.org/10.3390/su17156737

Šostar, M. (2024). Evaluating Consumer Preferences for Sustainable Products : A Comparative Study Across Five Countries. *World*, *5*(1), 1248–1266. https://doi.org/10.3390/world5040064

Tantri, K. K., Santosa, M., & Darmadi, R. A. (2025). Green HRM dan Green Organizational Culture terhadap Green Innovation Practices dengan Moderasi. *Business and Economics Conference in Utilization of Modern Technology*, 365–376. https://doi.org/10.31603/conference.14536

Voinea, C. L., Hoogenberg, B., Fratostiteanu, C., Bin, H., & Hashmi, A. (2020). The Relation between Environmental Management Systems and Environmental and Financial Performance in Emerging Economies. *Sustainability*, *12*, 1–21. https://doi.org/10.3390/su12135309

Wahyu, R., Ohorella, U., & Mokoginta, R. M. (2025). The Role of CSR and ISO 14001 in Enhancing Environmental Performance : The Mediating Effect of Environmental Accounting. *International Journal of Economics Development Research*, *6*(1), 309–321. https://doi.org/10.37385/ijedr.v6i1.7025

Wang, H., Aamir, M., Khan, S., Anwar, F., Shahzad, F., Adu, D., & Murad, M. (2021). Green Innovation Practices and Its Impacts on Environmental and Organizational Performance. *Frontiers in*

Psychology, *11*(January), 1–15. https://doi.org/10.3389/fpsyg.2020.553625

Wiharjo, A. K., & Ekadjaja, A. (2024). The Impact of Sustainability Reporting on Firm Value in Indonesia' S Consumer Sector Firms. *International Journal of Application on Economics and Business (IJAEB)*, *2*(3), 131–140. https://doi.org/10.24912/ijaeb.v2i3.131-140

Yulianingrum, A. V., & Hasmiati, A. (2025). Corporate Environmental Responsibility Model Based on Indonesian Ecocentric Principles. *Mediasas Journal: Media for Sharia and Personal Status Law*, *8*(4), 932–941. https://doi.org/10.58824/mediasas.v8i4.477

Zemite, L., Kozadajevs, J., Jansons, L., Bode, I., Dzelzitis, E., & Palkova, K. (2024). Industrial Facilities. *Energies*, *17*, 1–19. https://doi.org/10.3390/ en17112792