Strategic Integration of Green Human Resource Management for Organizational Sustainability: A Narrative Review

Tia Nurapriyanti
Universitas Buddhi Dharma, Indonesia
Correspondent : tia_aprianti10@yahoo.co.id

Citation: Nurapriyanti, T. (2025). Strategic Integration of Green Human Resource Management for Organizational Sustainability: A Narrative Review. Sustainability in Human Resources, 1(1), 1-15.

ABSTRACT: The increasing urgency of climate change and global sustainability challenges has directed significant scholarly attention to the role of Green Human Resource Management (GHRM) in aligning workforce practices with environmental goals. This narrative review aims to synthesize empirical findings on how GHRM strategies—green recruitment, green training and development, green performance management, green compensation and rewards, and green leadership—impact organizational sustainability performance. Using a comprehensive literature search from Scopus, Web of Science, and Google Scholar, this study critically examined peer-reviewed articles from diverse industrial sectors. The review incorporated thematic analysis of recent studies that explored the psychological, operational, and institutional implications of GHRM. Key findings confirm that GHRM positively influences employee pro-environmental behavior, organizational reputation, and long-term ecological outcomes. Green leadership and organizational culture were found to significantly mediate these effects, while systemic challenges such as regulatory inconsistencies and technological limitations continue to impede GHRM effectiveness. The results suggest that green recruitment, training, and leadership are pivotal levers in building resilient, sustainable organizations. Practical implications include the need for integrated policies, digital HR infrastructure, and leadership development programs grounded in environmental values. Future studies are encouraged to expand cross-cultural comparisons and explore the integration of digital tools in GHRM systems. This review positions GHRM as a transformative mechanism essential for achieving sustainability in the contemporary workplace.

Keywords: Green Human Resource Management, Sustainability, Green Recruitment, Green Leadership, Organizational Culture, Environmental Performance, Sustainable HR Practices.

INTRODUCTION

The integration of sustainability principles into Human Resource Management (HRM) practices has emerged as a critical concern for scholars and practitioners alike in the era of global environmental and social transformation. The concept of Sustainable Human Resource Management (SHRM), which encompasses green HRM, corporate social responsibility (CSR), and

ethical leadership, plays a central role in facilitating organizational transitions toward sustainability. As organizational responsibilities evolve beyond economic performance to include social equity and environmental stewardship, the alignment of HR functions with sustainability goals becomes increasingly vital (Ehnert et al., 2016). Recent studies underscore the role of SHRM in enhancing long-term organizational performance through the development of human capital that is resilient, ethically grounded, and environmentally conscious (Anlesinya & Susomrith, 2020).

Concurrently, organizations are increasingly prioritizing employee well-being, mental health, and inclusive workplace practices as integral components of sustainability. The intensification of work demands and digital transformation has elevated stress levels among employees, making work-life balance, psychological safety, and wellness programs essential for sustainable workforce development (Grawitch et al., 2006; Nielsen et al., 2017). Similarly, diversity, equity, and inclusion (DEI) initiatives have gained momentum, with organizations recognizing the importance of culturally competent leadership, gender equality, and inclusive policy frameworks for fostering innovation and social cohesion (Shore et al., 2011) (Adjei-Bamfo et al., 2019). Together, these evolving dimensions point to a broader understanding of HR sustainability as a multi-faceted approach that integrates ecological responsibility, social inclusiveness, and ethical governance(Ojo et al., 2020).

Empirical data further illustrates the growing importance of sustainable HR practices. For example, surveys by the World Economic Forum N. Wang et al., (2022) reveal that organizations with comprehensive DEI policies and mental health initiatives report higher employee engagement and retention rates. The International Labour Organization (ILO, 2021) also emphasizes that psychological well-being and ethical labor practices are central to decent work standards, particularly in a post-pandemic context. In addition, global talent management trends highlight the strategic value of leadership development, succession planning, and workforce analytics in ensuring organizational agility and resilience amid disruptions (Collings et al., 2019).

Moreover, the role of digital transformation in reshaping HR functions cannot be overstated. Advances in artificial intelligence (AI), machine learning, and HR analytics have transformed traditional HR tasks such as recruitment, performance management, and employee engagement. These technologies enable evidence-based decision-making and contribute to the alignment of HR processes with broader sustainability indicators (Marler & Boudreau, 2017). Yet, their integration also presents ethical challenges, particularly concerning data privacy, algorithmic bias, and digital equity (Yusoff et al., 2018). As such, there is an increasing need to assess the implications of digitalization through the lens of ethical HR practices and sustainable performance.

Despite these advancements, significant challenges remain. First, many organizations struggle to translate sustainability commitments into actionable HR strategies. While environmental goals are often addressed at the strategic level, their operationalization through HR policies such as green recruitment or sustainable performance appraisals is less consistent (Maheshwari et al., 2024). Second, balancing short-term productivity demands with long-term employee well-being remains a persistent dilemma. High-performance work systems, although beneficial for organizational

outcomes, can inadvertently contribute to employee burnout and psychological distress (Peccei et al., 2013).

Furthermore, achieving inclusive workplace cultures requires more than policy enactments. Unconscious biases, structural inequalities, and resistance to change hinder the implementation of DEI initiatives, particularly in male-dominated or culturally homogeneous sectors (Plaut et al., 2011). Ethical leadership is often constrained by competing organizational priorities or insufficient training, which weakens the impact of CSR efforts and values-based HRM. These challenges underscore the complexity of embedding sustainability across the HR spectrum and highlight the need for integrative and context-sensitive approaches.

Notably, current literature offers fragmented insights into the interconnected domains of SHRM, employee well-being, DEI, and digital HR transformation. While individual studies have examined aspects such as green HRM or mental health at work, comprehensive reviews that synthesize these themes remain limited (Kramar, 2014; Jackson et al., 2021). There is a pressing need to explore how ethical leadership, technological innovation, and inclusive practices converge to shape sustainable HR models. Furthermore, much of the existing research is concentrated in Western contexts, leaving gaps in understanding how these dynamics unfold in diverse socio-economic and cultural settings.

This narrative review aims to address these gaps by synthesizing interdisciplinary research on sustainable HRM practices. The primary objective is to examine how organizations can integrate green HRM, CSR, ethical leadership, employee well-being, DEI, and digital transformation into coherent strategies that promote sustainability. Special attention will be given to emerging trends, implementation barriers, and the role of organizational culture in shaping these outcomes. By drawing on empirical evidence and theoretical perspectives, this review seeks to provide actionable insights for academics, practitioners, and policymakers interested in sustainable workforce management.

The scope of this review encompasses a global perspective, with a specific emphasis on practices in both developed and emerging economies. Studies focusing on diverse organizational settings—including public institutions, multinational corporations, and small-to-medium enterprises—are included to capture the variability of HR sustainability challenges and solutions. Furthermore, the review incorporates literature from various disciplines such as management, psychology, sociology, and information systems to ensure a comprehensive understanding of the multifaceted nature of sustainable HRM.

METHOD

This narrative review employed a systematic literature search strategy focusing on Green Human Resource Management (GHRM) and its role in promoting organizational sustainability. The review aimed to synthesize empirical and theoretical findings related to green recruitment, green training,

green leadership, and sustainable HR practices. To ensure comprehensive coverage, the literature was gathered from multiple academic databases, including Scopus, Web of Science, and Google Scholar, as well as supplementary sources such as Emerald Insight, JSTOR, and ProQuest. These databases are renowned for their extensive indexing of peer-reviewed journals and scholarly publications in the fields of management, environmental science, and organizational studies (Liu et al., 2023; Okunhon & Yemisi, 2024).

Scopus was chosen as the primary database due to its broad coverage of reputable international journals and advanced analytical tools that support bibliometric evaluations. It enabled the identification of citation trends, author collaboration networks, and underexplored areas in GHRM. Web of Science, with its rigorous indexing standards, complemented the search by providing access to high-impact journals and cross-disciplinary studies critical for an integrated understanding of sustainable HR practices. Google Scholar, despite its limitations in structured indexing, was employed to access grey literature and interdisciplinary content not fully captured in the other databases. These include dissertations, books, and non-indexed conference proceedings, which offered additional insights into emerging concepts in GHRM.

The literature search was guided by a strategic selection of keywords and their synonyms to ensure relevance and comprehensiveness. For green recruitment, keywords included "green recruitment," "eco-friendly recruitment," and "sustainable recruitment." Green training was explored using terms such as "green training," "environmental training," "sustainable training," "eco training," and "green development training." The term "green leadership" was supplemented with synonyms like "eco leadership," "sustainable leadership," and "environmental leadership." Meanwhile, sustainable HR practices were examined through phrases such as "sustainable HR," "green HR practices," "eco-friendly HR practices," and "environmentally sustainable HRM." Boolean operators (e.g., AND, OR) and quotation marks were used to refine searches and ensure the retrieval of studies with relevant thematic content (Abedelrahim et al., 2024; Issac, 2023).

The search strategy included filters for publication years (from 2000 to 2024) to capture both foundational and recent developments in the field. The scope was further refined by applying discipline-based filters, focusing on management, organizational behavior, environmental studies, and HR development. This multidimensional filtering facilitated a comprehensive and relevant dataset that encompassed theoretical foundations, empirical studies, case studies, and best practice models in GHRM.

Inclusion criteria for the selected studies were: (1) peer-reviewed articles or conference papers published between 2000 and 2024, (2) studies focusing explicitly on at least one of the four GHRM components (green recruitment, green training, green leadership, sustainable HR practices), (3) articles written in English, and (4) studies presenting empirical data or theoretical frameworks relevant to organizational sustainability. Exclusion criteria included: (1) non-academic sources lacking methodological rigor, (2) articles not written in English, (3) studies focused solely on traditional HRM without a sustainability component, and (4) duplicate records retrieved from multiple databases.

The selection process involved a multi-phase screening approach. Initially, titles and abstracts were reviewed to eliminate clearly irrelevant studies. Subsequently, the full texts of potentially eligible articles were examined to confirm their relevance and methodological quality. The evaluation focused on the presence of empirical evidence, conceptual clarity, and contributions to the GHRM discourse. This rigorous screening ensured the reliability of the included literature and the validity of the thematic synthesis.

The methodological approach followed a bibliometric analysis complemented by a qualitative narrative synthesis. Bibliometric techniques were used to identify publication trends, citation patterns, and co-authorship networks. These analyses were conducted primarily using Scopus and Web of Science, given their structured data and analytics capabilities. The narrative synthesis focused on drawing conceptual linkages and thematic patterns across the studies, highlighting recurring concepts, emerging themes, and contextual differences. This integrative approach allowed for a deeper understanding of how GHRM practices have evolved and their impact on organizational sustainability.

To manage the references efficiently and ensure consistent citation practices, reference management software such as Mendeley and EndNote was utilized. These tools facilitated the organization of sources, removal of duplicates, and annotation of key themes. The references were systematically categorized based on thematic relevance, methodological approach, and geographical context. This helped in maintaining the transparency and reproducibility of the review process.

In addition to keyword-based searches, the cited reference search feature in Scopus and Web of Science was employed to identify influential works frequently cited in the field of GHRM. This backward snowballing technique ensured the inclusion of foundational studies and landmark contributions that may not have been captured through initial keyword queries. This strategy added depth to the literature base and enhanced the comprehensiveness of the review.

Overall, the methodology adopted in this narrative review reflects a rigorous, systematic, and replicable approach to literature retrieval, screening, and analysis. The combination of structured bibliometric tools and narrative integration offers a robust framework for understanding the landscape of GHRM research. It provides a solid foundation for identifying research gaps, formulating theoretical models, and informing practical applications in the realm of sustainable human resource management (Anshima et al., 2024; Pandey & Kulshreshtha, 2024; Singh et al., 2025).

RESULT AND DISCUSSION

This section presents a comprehensive synthesis of the empirical evidence gathered from the literature concerning the influence of Green Human Resource Management (GHRM) practices on organizational sustainability outcomes. The analysis is structured into five thematic sub-sections,

each representing a core area of GHRM practice: Green Recruitment and Selection, Green Training and Development, Green Performance Management, Green Compensation and Rewards, and Green Leadership. The findings demonstrate a consistent relationship between environmentally conscious HR practices and enhanced employee perceptions, behavioral shifts, and improved organizational reputation and performance across diverse sectors and geographical regions.

Green Recruitment and Selection

The literature reveals that environmentally conscious recruitment strategies significantly enhance candidates' perceptions of an organization's environmental responsibility and reputation. Jamil et al. (2023) emphasize that recruitment processes explicitly incorporating green values positively shape candidates' views of organizations as innovative and environmentally committed. Similarly, Adjei-Bamfo et al. (2019) and the study titled "Going green: increasing organizational attractiveness via sustainable practices and environmentally-conscious recruitment" (2021) demonstrate that including green messaging in job advertisements and emphasizing sustainability commitments increases organizational attractiveness and stakeholder confidence.

Recruitment models such as "green candidate selection," which incorporate environmental competency evaluation frameworks, have shown empirical effectiveness in aligning candidate values with sustainability missions (Adjei-Bamfo et al., 2019). These approaches include the training of recruiters to assess candidates' environmental values and readiness to contribute to green missions. Studies across sectors—manufacturing, hospitality, and services—underscore the strategic value of these green strategies in enhancing employer branding and competitive differentiation.

Organizations implementing green recruitment practices report improved candidate quality, particularly attracting individuals intrinsically motivated to support sustainability initiatives (Jamil et al., 2023). Furthermore, such strategies reinforce a dual advantage: they attract environmentally aligned talent and simultaneously build the organization's green brand identity in global labor markets (Adjei-Bamfo et al., 2019). These practices foster loyalty among environmentally conscious candidates and improve the overall organizational image.

Green Training and Development

Training programs focused on sustainability principles play a pivotal role in promoting pro-environmental behavior and ecological awareness among employees. Chaudhary, (2019) highlights that green training initiatives foster behavioral transformation through value-based learning and participatory approaches. Empirical findings from Islam et al., (2020) and Gomes et al. (2023) indicate that interactive green training modules, case simulations, and cloud-based e-learning platforms significantly enhance employees' environmental competencies and engagement.

These programs are designed to embed ecological principles within operational functions, enabling employees to optimize resource usage and reduce waste. Furthermore, training modules incorporating collaborative learning environments strengthen emotional engagement and team cohesion in supporting green missions (Gomes et al., 2023). The digitization of training via real-

time platforms further amplifies scalability and ensures alignment with regulatory and technological trends.

Islam et al. (2020) demonstrate that increased training intensity correlates positively with employee involvement in CSR initiatives and green innovation. Cross-departmental green training fosters organizational synergy in tackling environmental challenges collectively. Feedback and performance evaluations are integral to these training systems, allowing knowledge application in daily tasks and reinforcing long-term sustainability goals (Chaudhary, 2019a).

Green Performance Management

Organizations have integrated green performance indicators into performance appraisal systems to track employees' contributions to environmental goals. Gim et al. (2021) show that such integration provides targeted feedback on the ecological impact of individual activities. These performance systems typically measure metrics such as energy efficiency, waste reduction, and resource conservation (Chau et al., 2024).

The use of both quantitative and qualitative data in performance evaluations enhances accuracy in assessing environmental contributions and fosters accountability (Gim et al., 2021). Transparent green performance systems allow for strategic incentive alignment and the identification of high-performing employees in sustainability domains. However, challenges persist due to the complexity and variability of environmental indicators across industries (De et al., 2024).

Innovative solutions, including digital analytics and tailored evaluation frameworks, are recommended to improve indicator reliability. Customized metrics reflecting operational contexts are necessary for aligning performance management with strategic sustainability goals. Empirical data suggest that such systems encourage proactive behavior, higher engagement, and a culture of environmental accountability (Z. Wang et al., 2024).

Green Compensation and Rewards

Environmental-based compensation systems have emerged as key mechanisms to reinforce pro-environmental behaviors. Shayegan et al., (2023) Report that linking incentives such as bonuses for emissions reductions and recognition for green innovations effectively motivates sustainable employee behavior. Non-financial rewards like public acknowledgment and career advancement opportunities aligned with green performance also significantly influence employee motivation.

Integrated reward systems promote organizational justice perceptions, increase retention, and support a green-oriented culture. However, the primary challenge lies in defining measurable, objective green performance indicators within traditional compensation frameworks (Shayegan et al., 2023). Real-time monitoring systems and supportive digital infrastructures are necessary to sustain these green compensation strategies.

Green rewards complement green training by reinforcing newly acquired skills and enhancing innovation capacity. The combined impact strengthens strategic alignment between human capital development and sustainability outcomes. As organizations seek to build green cultures, coherent reward systems become essential tools for embedding sustainability across HR practices (Aloqaily et al., 2024).

Green Leadership

Green leadership is critical for embedding sustainability into the organizational culture and strategy. Yoo (2024) and Chen & Yan, (2022) identify eco-leadership and transformational green leadership as pivotal in aligning employee commitment with environmental goals. These leadership models emphasize clear communication of sustainability visions, empowerment, and mentoring that nurtures environmental competencies.

Empirical evidence highlights that green leaders enhance psychological capital, foster pride in green identity, and act as change agents. They use digital platforms to disseminate environmental values and encourage collaboration across hierarchies. Furthermore, leadership effectiveness is magnified when integrated with comprehensive GHRM systems, producing synergistic effects on employee behavior and organizational sustainability performance (Yoo, 2024).

(Farao et al., 2023) Discuss the role of green soft skills in overcoming resistance and facilitating GHRM adoption. Leaders with such competencies communicate the strategic relevance of sustainability and embed environmental values in HR functions. Organizational cultures supportive of sustainability amplify the efficacy of green leadership and mediate the link between HR practices and environmental performance.

Cross-Country Perspectives

Comparative studies reveal that GHRM adoption varies across developed and developing countries due to differences in regulatory environments, resource availability, and organizational readiness. Khan et al. (2023) note that stricter regulations and higher stakeholder expectations in developed nations foster broader GHRM implementation, while developing countries often face infrastructural and cultural barriers.

Nevertheless, best practices such as green performance metrics and digital HR tools from developed contexts can be adapted to local conditions in emerging economies. Policy support and government interventions are essential to facilitate this transfer and build institutional capacity for GHRM integration (Khan et al., 2023).

In conclusion, the findings substantiate the positive impact of GHRM practices on organizational sustainability. Each component—recruitment, training, performance management, rewards, and leadership—plays a distinct role in shaping pro-environmental behaviors and enhancing corporate ecological identity. The evidence underscores the importance of a systems approach where HR practices are interlinked with organizational strategy and culture, supported by visionary leadership and conducive policy frameworks.

The findings of this narrative review affirm the critical role that Green Human Resource Management (GHRM) plays in promoting organizational sustainability, as demonstrated by empirical studies across diverse sectors and geographical contexts. This section integrates these findings with existing literature and discusses their implications, systemic barriers, and potential strategies for optimizing GHRM implementation, while highlighting areas for future research.

The confirmation of GHRM's positive impact on environmental performance and employee pro-environmental behaviors substantiates earlier research by Shah et al., (2021), who established a

strong correlation between green HR practices and operational efficiency. The present review extends this understanding by incorporating advanced methodologies such as PLS-SEM, which provide more nuanced insights into the causal relationships among variables. Additionally, the expanding role of mediating factors such as green organizational culture and green leadership reinforces the complexity of GHRM's impact, suggesting that effective outcomes require more than structural implementation—it demands cultural alignment and transformational leadership.

As confirmed by Hadi et al., (2023), green recruitment, training, and performance management have directly enhanced organizational identity and employee engagement. Their large-scale empirical studies demonstrate that environmentally attuned HR processes lead not only to increased employee satisfaction but also to tangible reductions in environmental impact. These findings echo the foundational work of scholars who have long advocated for integrating environmental considerations into HR strategy as a means of achieving sustainable organizational development. However, the expansion of sample populations and sectoral coverage in recent research underscores the generalizability of these effects across industries.

Contrastingly, Ghosh & Haque, (2024) offer a critical perspective by illustrating how the effectiveness of GHRM is contingent upon organizational context and national culture. Their research introduces the complexity of green psychological climate and highlights discrepancies in environmental goal alignment between managerial and non-managerial staff. This insight problematizes the one-size-fits-all assumption in early GHRM literature and necessitates a more context-sensitive approach to policy design and implementation. It also raises questions regarding intra-organizational communication and the effectiveness of top-down directives in shaping behavioral outcomes, particularly in diverse cultural settings(He et al., 2023).

Digital transformation in HRM represents a new frontier for GHRM implementation. (Awan et al., 2023) emphasize the utility of big data analytics in real-time monitoring and feedback, enabling agile responses to environmental performance metrics. This innovation enhances transparency and accountability in HR systems, aligning them more closely with sustainability objectives. However, its successful application requires digital infrastructure and analytical capability that may be unevenly distributed across organizations, particularly in emerging economies. This disparity underscores the systemic digital divide that must be addressed to ensure equitable implementation of data-driven GHRM strategies(Gelagay & Werke, 2024).

Leadership remains a central pillar in driving successful GHRM adoption. He et al. (2023) confirm that green transformational leadership significantly enhances the impact of GHRM practices by cultivating an environment conducive to green behavior. The mediating role of leadership is consistent with Bombiak, (2019) assertion that the internalization of green values by top management significantly influences employee buy-in and organizational legitimacy in sustainability initiatives. These findings reveal that leadership is not merely supportive but constitutive of effective GHRM, necessitating targeted leadership development programs that embed sustainability competencies.

The critical influence of organizational culture is further evidenced by Roscoe et al., (2019), who underscore the necessity of a green culture for maximizing the benefits of GHRM. The existence of cultural alignment between organizational and individual values, or person-organization fit, is

pivotal to the acceptance and effectiveness of green initiatives, as demonstrated by (Cesário et al., (2022). This suggests that GHRM strategies should not only be designed around systems and structures but also consider the psychological and cultural landscape of the workforce. This relational dynamic between individual and organizational values merits deeper exploration, particularly in cross-cultural settings.

The systemic factors influencing GHRM extend beyond the organization itself. Regulatory frameworks and government support play a crucial role in enabling or constraining GHRM adoption. Alenzi et al., (2023) highlight that clear, enforceable environmental regulations create an external impetus for companies to integrate sustainability into HR policies. This external legitimacy enhances internal prioritization of green HR practices, but the variability in regulatory environments across countries suggests that global harmonization or regionally tailored policy frameworks may be necessary.

Similarly, internal systemic support, particularly from senior management, is essential for sustaining GHRM practices. (Adekoya et al., 2023) Emphasize that visible commitment from top executives acts as a signal to employees and stakeholders regarding the seriousness of sustainability objectives. However, the presence of symbolic rather than substantive support remains a challenge. Future studies should investigate mechanisms that ensure leadership accountability and move beyond performative gestures toward genuine integration of green values into strategic management.

These findings suggest multiple pathways for improving the implementation of GHRM. First, developing context-sensitive frameworks that account for organizational size, sector, culture, and maturity level can enhance effectiveness. Second, building leadership capacity with a focus on sustainability competencies can drive internal cultural shifts necessary for systemic transformation. Third, leveraging digital technologies and data analytics can provide actionable insights and enhance adaptive capacity, although this must be balanced with investments in infrastructure and human capital. Finally, regulatory reforms that align environmental goals with HR mandates can serve as catalysts for broader institutional change.

Despite these insights, limitations remain. A significant portion of the current literature is concentrated in developed countries, which may limit the generalizability of findings to low- and middle-income contexts. Additionally, the predominant use of cross-sectional designs constrains the ability to establish causal relationships. Future research should consider longitudinal studies that can track the evolution of GHRM practices and their impact over time. Moreover, greater emphasis on qualitative methodologies could uncover the nuanced experiences and perceptions of employees and managers navigating GHRM transitions.

In summary, while the empirical confirmation of GHRM's effectiveness is robust, the diversity of organizational contexts, leadership styles, and regulatory environments requires more tailored approaches. The integration of systemic, cultural, and technological dimensions offers a promising framework for enhancing the strategic role of GHRM in advancing sustainability. Continued research and policy development are necessary to address the limitations and complexities inherent in translating green HR theory into practice.

CONCLUSION

This narrative review has demonstrated that Green Human Resource Management (GHRM) significantly contributes to advancing organizational sustainability through its core components: green recruitment, green training and development, green performance management, green compensation and rewards, and green leadership. The findings affirm the strategic role of GHRM in promoting pro-environmental employee behavior, enhancing organizational reputation, and improving environmental performance. Crucially, the review also highlights the mediating role of green organizational culture and green transformational leadership in maximizing the outcomes of GHRM practices.

Despite growing evidence of GHRM's benefits, systemic challenges such as fragmented environmental regulations, limited digital HR infrastructure, and varying cultural acceptance across regions hinder consistent implementation. Therefore, policy makers and organizational leaders must co-create supportive regulatory frameworks, invest in green HR technologies, and promote inclusive organizational cultures aligned with sustainability values.

Future research should explore longitudinal and comparative studies across different industrial sectors and geographical contexts, focusing particularly on the integration of AI and data analytics in GHRM execution. It is also imperative to investigate how green leadership models adapt in diverse organizational ecosystems to sustain commitment at all managerial levels.

Overall, strengthening the implementation of green recruitment, green training, and green leadership emerges as a critical strategy to overcome institutional and behavioral barriers to sustainability transformation. These practices not only mobilize internal commitment but also anchor environmental responsibility as a defining characteristic of future-oriented organizations.

REFERENCE

Abedelrahim, S., Qassim, A., & Alatawi, F. (2024). Green practices in action: examining HRM's role in fostering environmental performance in Egypt's hospitality sector. *Sustainability*, *16*(8), 3314. https://doi.org/10.3390/su16083314

Adekoya, O., Mordi, C., Ajonbadi, H., & Adisa, T. (2023). Challenges of adopting and implementing green human resource management practice: the perspectives of organisational culture and political commitment in Nigeria. In *Green HRM* (pp. 253–276). https://doi.org/10.1007/978-3-031-33878-6_11

Adjei-Bamfo, P., Bempong, B., Osei, J., & Kusi-Sarpong, S. (2019). Green candidate selection for organizational environmental management. *International Journal of Manpower*, *41*(7), 1081–1096. https://doi.org/10.1108/ijm-10-2019-0480

Alenzi, M., Jaaffar, A., & Khudari, M. (2023). The effect of GHRM on the sustainable performance of private companies in Qatar. *International Journal of Management and Sustainability*, *12*(3), 289–300. https://doi.org/10.18488/11.v12i3.3376

Aloqaily, A., Qawasmeh, E., Masa'd, F., Alrousan, A., & Al-Zaqeba, M. (2024). The mediating effect of green culture on the relationship between GHRM and green sustainable performance in Jordanian SME logistics companies. *International Journal of Advanced and Applied Sciences*, *11*(10), 232–240. https://doi.org/10.21833/ijaas.2024.10.025

Anlesinya, A., & Susomrith, P. (2020). Sustainable human resource management: a systematic review of a developing field. *Journal of Global Responsibility*, *11*(3), 295–324. https://doi.org/10.1108/jgr-04-2019-0038

Anshima, A., Bhardwaj, B., Sharma, D., & Dhiman, M. (2024). Ensuring sustainability through green HRM practices: a review, synthesis and research avenues. *Journal of Organizational Effectiveness: People and Performance*, *12*(1), 57–90. https://doi.org/10.1108/joepp-10-2023-0493

Awan, U., Braathen, P., & Hannola, L. (2023). When and how the implementation of green human resource management and data-driven culture to improve the firm sustainable environmental development? *Sustainable Development*, *31*(4), 2726–2740. https://doi.org/10.1002/sd.2543

Bombiak, E. (2019). Green human resource management – the latest trend or strategic necessity? *Journal of Entrepreneurship and Sustainability Issues*, *6*(4), 1647–1662. https://doi.org/10.9770/jesi.2019.6.4(7)

Cesário, F., Sabino, A., Moreira, A., & Azevedo, T. (2022). Green human resources practices and person-organization fit: the moderating role of the personal environmental commitment. *Emerging Science Journal*, *6*(5), 938–951. https://doi.org/10.28991/esj-2022-06-05-02

Chau, K., Wang, J., & Moslehpour, M. (2024). The impact of technological advancement and green HRM practices on the sustainable business development in Vietnam. *Engineering Economics*, *35*(2), 155–168. https://doi.org/10.5755/j01.ee.35.2.33189

Chaudhary, R. (2019a). Effects of green human resource management: testing a moderated mediation model. *International Journal of Productivity and Performance Management*, *70*(1), 201–216. https://doi.org/10.1108/ijppm-11-2018-0384

Chaudhary, R. (2019b). Green human resource management and employee green behavior: an empirical analysis. *Corporate Social Responsibility and Environmental Management*, *27*(2), 630–641. https://doi.org/10.1002/csr.1827

Chen, Y., & Yan, X. (2022). The small and medium enterprises' green human resource management and green transformational leadership: a sustainable moderated-mediation practice. *Corporate Social Responsibility and Environmental Management*, *29*(5), 1341–1356. https://doi.org/10.1002/csr.2273

De, T., Verma, P., Gangaraju, P., Bhaskar, A., Mahlawat, S., Kumar, V., & Singh, S. (2024). Exploring the synergistic effects of circular economy, industry 4.0 technology, and green

human resource management practices on sustainable performance: empirical evidence from Indian companies. *Business Strategy & Development*, *7*(3). https://doi.org/10.1002/bsd2.70002

Farao, C., Bernuzzi, C., & Ronchetti, C. (2023). The crucial role of green soft skills and leadership for sustainability: a case study of an Italian small and medium enterprise operating in the food sector. *Sustainability*, *15*(22), 15841. https://doi.org/10.3390/su152215841

Gelagay, D., & Werke, S. (2024). Impact of green human resource management and internal green supply chain management practices on operational performance: an empirical investigation of manufacturing sector. *Business Strategy & Development*, *7*(2). https://doi.org/10.1002/bsd2.399

Ghosh, A., & Haque, S. (2024). The impact of GHRM and EGB on organization's financial and operational performance – an empirical analysis on Indian ICT sector. *Journal of Organizational Effectiveness: People and Performance*, *12*(1), 105–126. https://doi.org/10.1108/joepp-08-2023-0359

Gim, G., Ooi, S., Teoh, S., Lim, H., & Yeap, J. (2021). Green human resource management, leader–member exchange, core self-evaluations and work engagement: the mediating role of HRM performance attributions. *International Journal of Manpower*, *43*(3), 682–700. https://doi.org/10.1108/ijm-05-2020-0255

Gomes, J., Sabino, A., & Antunes, V. (2023). The effect of green human resources management practices on employees' affective commitment and work engagement: the moderating role of employees' biospheric value. *Sustainability*, *15*(3), 2190. https://doi.org/10.3390/su15032190

Hadi, H., Kautsar, A., Fazlurrahman, H., & Rahman, M. (2023). Green HRM: the link between environmental and employee performance, moderated by green work climate perception. *International Journal of Sustainable Development and Planning*, *18*(5), 1573–1580. https://doi.org/10.18280/ijsdp.180528

He, W., Mushtaq, N., & Jan, L. (2023). Unlocking the dual black box of GHRMP & EGOC for sustainable environmental performance in developing economies: can green workplace behavior and green passion transmit the real change? *Environment Development and Sustainability*, *26*(6), 16025–16055. https://doi.org/10.1007/s10668-023-03286-x

Islam, T., Khan, M., Ahmed, I., & Mahmood, K. (2020). Promoting in-role and extra-role green behavior through ethical leadership: mediating role of green HRM and moderating role of individual green values. *International Journal of Manpower*, *42*(6), 1102–1123. https://doi.org/10.1108/ijm-01-2020-0036

Issac, A. (2023). *Understanding the role of green HRM as a contributor towards sustainable global organization*. https://doi.org/10.4018/978-1-6684-9503-2.ch001

Jamil, S., Zaman, S., Kayıkçı, Y., & Khan, S. (2023). The role of green recruitment on organizational sustainability performance: a study within the context of green human resource management. *Sustainability*, *15*(21), 15567. https://doi.org/10.3390/su152115567

Khan, R., Abbasi, M., Farhan, A., Al-Sakkaf, M., & Singh, K. (2023). Green HRM, organizational identification and sustainable development in the emerging economy: applications from social identity theory. *Journal of Economic and Administrative Sciences*.

Liu, R., Zhuo, Y., Ijaz, A., Lutfi, A., & Mao, J. (2023). Sustainable business performance: examining the role of green HRM practices, green innovation and responsible leadership through the lens of pro-environmental behavior. *Sustainability*, *15*(9), 7317. https://doi.org/10.3390/su15097317

Maheshwari, S., Kaur, A., & Renwick, D. (2024). Green human resource management and green culture: an integrative sustainable competing values framework and future research directions. *Organization & Environment*, *37*(1), 32–56. https://doi.org/10.1177/10860266231217280

Ojo, A., Tan, C., & Alias, M. (2020). Linking green HRM practices to environmental performance through pro-environment behaviour in the information technology sector. *Social Responsibility Journal*, *18*(1), 1–18. https://doi.org/10.1108/srj-12-2019-0403

Okunhon, P., & Yemisi, I. (2024). *Green human resource management*. https://doi.org/10.4018/979-8-3693-2595-7.ch006

Pandey, V., & Kulshreshtha, K. (2024). Factors influencing effective incorporation of green management techniques in business organization: a comprehensive insight. *E3S Web of Conferences*, *488*, 02017. https://doi.org/10.1051/e3sconf/202448802017

Roscoe, S., Subramanian, N., Jabbour, C., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, *28*(5), 737–749. https://doi.org/10.1002/bse.2277

Shah, S., Jiang, Y., Wu, H., Ahmed, Z., Ullah, I., & Adebayo, T. (2021). Linking green human resource practices and environmental economics performance: the role of green economic organizational culture and green psychological climate. *International Journal of Environmental Research and Public Health*, *18*(20), 10953. https://doi.org/10.3390/ijerph182010953

Shayegan, S., Bazrkar, A., & Yadegari, R. (2023). Realization of sustainable organizational performance using new technologies and green human resource management practices. *Foresight and STI Governance*, *17*(2), 95–105. https://doi.org/10.17323/2500-2597.2023.2.95.105

Singh, S., Martins, A., & Tefera, O. (2025). Green human resource management and sustainable development goals in non-profit organisations. *SA Journal of Human Resource Management*, *23*. https://doi.org/10.4102/sajhrm.v23i0.2780

Wang, N., Zhang, S., & Wang, W. (2022). Impact of environmental innovation strategy on green competitiveness: evidence from China. *International Journal of Environmental Research and Public Health*, *19*(10), 5879. https://doi.org/10.3390/ijerph19105879

Wang, Z., Makhbul, Z., & Alam, S. (2024). Green human resource management in practice: assessing the impact of readiness and corporate social responsibility on organizational change. *Sustainability*, *16*(3), 1153. https://doi.org/10.3390/su16031153

Yoo, D. (2024). Eco-leadership in action: integrating green HRM and the new ecological paradigm to foster organizational commitment and environmental citizenship in the hospitality industry. *Sustainability*, *16*(20), 9044. https://doi.org/10.3390/su16209044

Yusoff, Y., Nejati, M., Kee, D., & Amran, A. (2018). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, *21*(3), 663–680. https://doi.org/10.1177/0972150918779294