

Integrating Green HRM, Competencies, and Leadership for Sustainable Organizational Performance: A Systematic Review

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ABSTRACT

This study aims to review and analyses 24 research articles related to the implementation of Green Human Resource Management (GHRM), green competencies, leadership, and innovation in driving sustainable performance. The selected studies span various sectors, including manufacturing, healthcare, energy, education, and small and medium enterprises (SMEs), utilizing both quantitative and qualitative approaches. The findings reveal that GHRM practices such as green recruitment, green training, environmentally focused performance evaluations, and green compensation significantly influence employee behaviour toward environmentally friendly practices. Furthermore, individual green competencies are proven to enhance green innovation and awareness of environmental and social responsibility.

Transformational leadership and a sustainability-driven organizational culture play a critical role in amplifying the impact of GHRM on organizational performance. Several studies also highlight that environmentally conscious workplace design supports the development of adaptive skills and sustainable behaviour.

In conclusion, the strategic integration of GHRM, leadership, innovation, and organizational culture significantly contributes to achieving long-term sustainability across diverse industries. The practical implications of this review encourage HR managers and policymakers to embed green values into HR and leadership processes. Future research is recommended to further explore mechanisms and optimal strategies to strengthen the contribution of GHRM in meeting organizational sustainability goals.

Keywords: Green HRM, Green Competencies, Sustainability, Leadership, Innovation.

1. INTRODUCTION

Currently, sustainability has become an important strategic focus for organizations operating in both the private and public sectors. As global challenges such as climate change, environmental degradation, and social inequality continue to rise, organizations are increasingly expected to integrate sustainability into their operational and human resource (Jabbour, C. J. C., & Santos, 2020; Renwick, 2020b). One major development in this field is the emergence of Green Human Resource Management (GHRM), a set of HR practices designed to promote and support environmental goals through recruitment, training, performance management, and employee engagement (Renwick, 2020a; Yusoff et al., 2020). In practice, GHRM enables organizations to build an environmentally conscious culture by incorporating ecological concerns into HR functions. GHRM has been shown to have a positive influence on employee behaviour, organizational citizenship behaviour towards the environment (OCBE), and overall sustainable performance (Bakker et al., 2022; Jabbour, C. J. C., & Santos, 2020). However, despite the recognition of GHRM's benefits, many studies still focus on its direct impact, leaving a significant gap in understanding how individual-level capabilities—specifically Green Skills and Green Competencies can moderate the effectiveness of these practices, particularly in public sector institutions (Ghosh, 2024; Noor et al., 2023).

Green Skills refer to employees' knowledge and abilities in sustainable work practices, such as energy efficiency, waste management, and environmentally friendly decision-making (ILO, 2022). Meanwhile, Green Competencies encompass a range of behavioural, technical, and strategic skills that enable individuals to contribute to

environmental initiatives (Chiappetta Jabbour et al., 2019). These competencies are crucial for achieving the transformational impact that GHRM aims for. As organizations shift to more sustainable models, the workforce's ability to internalize and operationalize green values becomes a key determinant of success. In the context of GHRM, Green Skills and Green Competencies embody the "ability" dimension, influencing the extent to which individuals engage with green HR policies. Therefore, understanding their moderating role is crucial in assessing the actual impact of GHRM on organizational sustainability (Appelbaum et al., 2020).

This research focuses on Public Television Media in Indonesia, a broadcasting institution, both public and private, with a unique position in shaping public perception and societal values. Despite having a public mandate, television media in Indonesia faces modern challenges: declining viewership, limited content innovation, and increased competition from digital platforms such as YouTube and TikTok. In this context, aligning internal capabilities with environmental and social missions has become not only desirable but also necessary for the survival and relevance of the institution. Moreover, the urgency for public organizations to lead by example in sustainable development has never been greater (He et al., 2021). By examining the moderating effects of Green Skills and Green Competencies in the relationship between GHRM practices and sustainable performance, this study aims to bridge the theoretical gap and provide actionable insights for public institutions seeking to optimize human resources in supporting sustainability goals.

2. RESEARCH METHODOLOGY

This study uses a qualitative mini-literature review approach focusing on the relationship between Green Human Resource Management (GHRM), Green Skills, Green Competencies, and sustainable performance in public sector organizations, especially Indonesian television media. A total of 24 peer-reviewed journal articles were selected from Scopus, ScienceDirect, and Web of Science based on relevance and academic validity. The articles were analyzed and summarized to meet the research objectives. Table 1 shows the distribution of journals and publishers, including article titles, authors, and publication years. Table 2 categorizes articles by subject, summarizing content, methods, findings, and future research directions. This review offers conceptual insights into Green Skills and Competencies as moderators in GHRM-performance relationships.

Table 1. Journal and Publisher Distribution

No	Article Name	Author(s)	Journal	Publisher	Year
1	Exploring The Moderating Role Of Technological Competence And Artificial Intelligence In Green Hrm	(Abid et al., 2024)	Polish Journal Of Management Studies	pjms	2024
2	Barierrrs to Implementing the Concept of Green Human Resource Management: The Case of Poland	(Bombiak, 2020)	European Research Studies Journal	European Research Studies Journal	2020
3	Impact of Green Training on Environmental Performance through Mediating Role of Competencies and Motivation	(Yafi et al., 2021)	Sustainability	MDPI	2021
4	Influencing Mechanism of Green Human Resource Management and Corporate Social Responsibility on Organizational Sustainable Performance	(Zhao et al., 2021)	Sustainability	MDPI	2021

No	Article Name	Author(s)	Journal	Publisher	Year
5	Text mining on green policies for integrating sustainability in higher education	(Zhao et al., 2021)	The International Journal of Management Education	Elsevier Ltd.	2024
6	A systematic review of the research on telework and organizational economic performance indicators	(JJean Claude Mutiganda et al., 2022)	Frontiers in Psychology	Frontiers	2022
7	Green Innovation and Its Effects on Innovation Climate and Environmental Sustainability: The Moderating Influence of Green Abilities and Strategies	(Alshammari & Alshammari, 2023)	Sustainability	MDPI	2023
8	Understanding the Impact of Green Human Resource Management Practices and Dynamic Sustainable Capabilities on Corporate Sustainable Performance: Evidence From the Manufacturing Sector	(Khaskhely et al., 2022)	Frontiers in Psychology	Frontiers	2022
9	Soft Skills for Human Centered Management and Global Sustainability	(Lepeley et al., 2021)	Human Centered Management Book Series	Routledge	2021
10	Model of Green Human Resources Behaviour Based on Green Behaviour Training, Green Competence, and Affective Commitment on Green Value	(Nugroho et al., 2022)	Global Review of Islamic Economics and Business	Faculty of Islamic Economics and Business, State Islamic University Sunan Kalijaga Yogyakarta	2022
11	The influence of green human resource management on employees' green innovation behaviour: The role of green organizational commitment and knowledge sharing	(Yang & Li, 2023)	Heliyon	Elsevier Ltd	2023

No	Article Name	Author(s)	Journal	Publisher	Year
12	Impact of Green HRM on Sustainable Performance: Moderating Role of Green Employee Motivation among the public entities in UAE	(Alhashmi et al., 2024)	Library Progress International	Bpas journals	2024
13	Green HRM practices, green capability and green performance: the avenues towards greener economy	(Doghan, 2024)	Cogent Business & Management	tandfonline	2024
14	Go green! Measuring the factors that influence sustainable performance	(Shoailb et al., 2022)	Journal of Cleaner Production	Elsevier Ltd	2022
15	Green means long life - green competencies for corporate sustainability performance: A moderated mediation model of green organizational culture and top management support	(Ali et al., 2023)	Journal of Cleaner Production	Elsevier Ltd	2023
16	The Impact of Green Human Resources Management Practices on the Relationship between Commitment to Social Responsibility and Sustainable Performance	(Hmeedat & Albdareen, 2022)	Information Sciences Letters	researchgate.net	2022
17	The effect of green competencies and values on carbon footprint on sustainable performance in healthcare sector	(Abdelkareem et al., 2024)	Cleaner and Responsible Consumption	Elsevier Ltd	2024
18	Corporate Social Responsibility, Green Human Resources Management, and Sustainable Performance: Is Organizational Citizenship Behaviour towards Environment the Missing Link?	(Malik et al., 2021)	Sustainability	MDPI	2021
19	Achieving Green Performance through Green Human Resources	(Wahyuni et al., 2023)	International Journal of Applied Management and Business	Adpebi Sciance	2023

No	Article Name	Author(s)	Journal	Publisher	Year
	Management, Green Knowledge Management and Green Competency				
20	Green competence framework: evidence from China	(Subramanian et al., 2020)	The International Journal of Human Resource Management	Routledge	2020
21	Green Human Resource Competency Mechanisms: Moderator Role Between Green Supply Chain and the Oil and Gas Industry Environmental Performance	(Kandil, 2023)	Vision	sagepub.com	2023
22	The Innovative Human Resource Management Framework: Impact of Green Competencies on Organisational Performance	(Vuk Mirćeti, et.al, 2022)	Sustainability	MDPI	2022
23	Green Human Resource Management as a Catalyst for Sustainable Performance: Unveiling the Role of Green Innovations	(Zihan & Makhbul, 2024)	Sustainability	MDPI	2024
24	Associations between environmental factors and adaptive skills of people with intellectual and developmental disabilities in educational settings	(Zihan & Makhbul, 2024)	Social Sciences & Humanities Open	Elsevier Ltd	2023

Source: Processed by the author (2025)

The summary of journal and publisher distribution is shown in Table 1 above, which includes 24 peer-reviewed articles from various journals and publishers. The following table categorizes the articles according to their respective subjects.

Table 2. Articles Category Based on the Subject

No	Article Name	Objectives	Findings	Recommendations
1	Exploring The Moderating Role Of Technological Competence And	The objective of this research is to investigate the relationship	GHRM practices significantly foster environmentally sustainable practices	Organizations should develop and adopt customized Green

No	Article Name	Objectives	Findings	Recommendations
	Artificial Intelligence In Green HRM	between Green Human Resource Management (GHRM) practices and environmental performance in organizations in Qatar, while also examining the moderating roles of artificial intelligence (AI) and technological competence in enhancing the effectiveness of these practices.	within organizations, with artificial intelligence and technological competence positively moderating their impact on environmental performance, thereby enhancing organizational reputation and ensuring compliance with regulatory and industry standards.	HRM strategies tailored to Qatar’s unique environmental challenges and cultural context, while emphasizing the integration of technological competence and AI to maximize environmental performance outcomes.
2	Exploring The Moderating Role Of Technological Competence And Artificial Intelligence In Green HRM	This study aims to identify the main barriers to implementing Green Human Resource Management (GHRM) in Polish companies and assess its application across seven HR functional areas.	The implementation of GHRM in Polish companies remains low due to limited financial resources, lack of incentives, low managerial competencies in sustainable HRM, ineffective tools, and an economically-driven organizational culture.	Raising managerial awareness of these barriers can facilitate their removal and support broader adoption of green HR practices in Polish enterprises.
3	Impact of Green Training on Environmental Performance through Mediating Role of Competencies and Motivation	This study aims to examine the impact of green training on environmental performance, with green competencies and green motivation serving as mediating variables in the adoption of Green Human Resource Management (GHRM) in Malaysian universities.	Green training significantly improves environmental performance, with green competencies (skills, abilities, knowledge, behaviour, attitude, and awareness) and green motivation positively and significantly mediating this relationship.	Organizations, especially in higher education, should invest in structured green training programs to enhance green competencies and motivation, thereby improving overall environmental performance.

No	Article Name	Objectives	Findings	Recommendations
4	Influencing Mechanism of Green Human Resource Management and Corporate Social Responsibility on Organizational Sustainable Performance	This study aims to explore the mechanisms of Green Human Resource Management (GHRM) and Corporate Social Responsibility (CSR) in achieving sustainable performance, based on AMO and stakeholder theories.	All proposed hypotheses were supported, confirming that GHRM and CSR significantly contribute to improved societal, environmental, and sustainable performance, particularly in construction firms.	Future research should expand the scope to include other development-contributing industries such as transportation and manufacturing for broader insights.
5	Text mining on green policies for integrating sustainability in higher education	This study aims to identify key sustainability-related skills and competencies to help align higher education curricula with green transition demands, using Natural Language Processing (NLP) to compare EU policy documents.	The comparison between the EU Taxonomy for Sustainable Activities (EU-TSA) and ESCO reveals essential enabling competencies and priority disciplines needed to design sustainability-oriented educational programs.	Higher education providers should use these insights to update curricula by integrating key sustainability competencies and aligning learning tasks with evolving policy and labour market needs.
6	A systematic review of the research on teleworks and organizational economic performance indicators	This study aims to systematically review the relationship between telework and organizational economic performance indicators such as employee performance, organizational performance, and employee turnover.	Teleworking employees reported higher performance compared to office-based employees, with performance improvements varying by individual characteristics and teleworking extent; telework was also linked to improved organizational performance and lower employee turnover when voluntary.	Future research should focus on high-quality prospective studies to better understand the impact of telework on organizational economic performance indicators.

No	Article Name	Objectives	Findings	Recommendations
7	Green Innovation and Its Effects on Innovation Climate and Environmental Sustainability: The Moderating Influence of Green Abilities and Strategies	This study aims to explore the relationship among environmental sustainability, work environment, green innovation, and innovation climate in industrial companies, particularly in Saudi Arabia’s oil, gas, and mining sectors.	Green innovation significantly enhances both environmental sustainability and innovation climate, with the innovation climate acting as a mediator, while green motivational strategies and green abilities moderate the effectiveness of green innovation practices.	Industrial firms should integrate sustainability practices, enhance their innovation climate, and optimize green innovation strategies to improve overall sustainability and innovation outcomes.
8	Understanding the Impact of Green Human Resource Management Practices and Dynamic Sustainable Capabilities on Corporate Sustainable Performance: Evidence From the Manufacturing Sector	This study aims to investigate the impact of Green Human Resource Management (GHRM) practices, such as green recruitment, green pay and reward, and dynamic sustainable capabilities on improving corporate environmental and social performance in the large-scale manufacturing sector in Pakistan.	GHRM practices and dynamic sustainable capabilities significantly and positively impact corporate sustainable performance, highlighting the importance of green recruitment, monitoring capabilities, and environmentally conscious employees.	Management should prioritize acquiring dynamic sustainable capabilities, especially in monitoring, and focus on hiring environmentally conscious employees to achieve social equity and ecological conservation goals.
9	Exploring The Moderating Role of Technological	The objective of this work is to highlight the significant impact of Soft Skills on achieving rigorous quality standards and enhancing performance and productivity within organizations globally, while exploring the role of Soft Skills as the operational language for	Soft Skills are crucial for facilitating communication and collaboration across various organizations, industries, sectors, and nations, helping individuals understand each other beyond technical tasks. Their demand is growing exponentially in the labour force, and there is a gap in educational systems	Organizations and educational institutions should prioritize the development of Soft Skills in students and workers to improve global competitiveness, quality, and performance in human-centered, high-performance organizations. Additionally,

No	Article Name	Objectives	Findings	Recommendations
		implementing the Human-Centered Management (HCM) model.	in developing these skills for students and graduates.	training programs focused on these skills should be integrated into curricula to better prepare individuals for the evolving demands of the workforce.
10	Model of Green Human Resources Behaviour Based on Green Behaviour Training, Green Competence, and Affective Commitment on Green Value	To explore green management through behavioural theory by assessing how green behaviour training influences competencies, commitment, and behaviour at PT Sidomuncul.	To examine the impact of green behaviour training on green competencies, commitment to green values, and green behaviour based on behavioural theory at PT Sidomuncul.	Organizations should continuously provide green behaviour training to boost employee competencies and commitment, supporting Green HRM and a greener culture.
11	The influence of green human resource management on employees' green innovation behaviour: The role of green organizational commitment and knowledge sharing	To examine how GHRM influences green innovation behavior, with GOC as mediator and knowledge sharing as moderator.	GHRM boosts green innovation; GOC mediates this link; knowledge sharing strengthens both effects.	Apply GHRM, enhance green commitment, and promote knowledge sharing to drive green innovation.
12	Impact of Green HRM on Sustainable Performance: Moderating Role of Green Employee Motivation among the public entities in UAE	To examine the impact of green HRM practices (recruitment & selection, training & development, reward & pay), and green leadership on sustainable performance in UAE public entities, with green motivation as a moderator.	Green recruitment & selection and green reward & pay positively affect sustainable performance. Green motivation significantly moderates the effects of green training and green reward on performance.	Policymakers in public entities should focus on strengthening green HRM practices and foster green motivation to enhance sustainable performance.
13	Green HRM practices, green capability and	To investigate the impact of green HRM practices and green capability	Green HRM practices (green skill development, motivation,	Policymakers should strengthen green HRM initiatives and

No	Article Name	Objectives	Findings	Recommendations
	green performance: the avenues towards greener economy	(GC) on green performance (GP) in Saudi Arabia’s manufacturing sector.	involvement, and empowerment) significantly enhance GC and GP. GC significantly mediates the effects of green skill development, motivation, and involvement on GP, but not empowerment.	develop green capabilities to foster sustainable performance in the manufacturing sector.
14	Go green! Measuring the factors that influence sustainable performance	To examine the impact of GHRM practices and environmental-specific transformational leadership on sustainable performance, with pro-environmental behavior as a mediator and attitude as a moderator in Pakistan's dairy industry.	GHRM practices enhance environmental behavior, while environmental-specific leadership influences pro-environmental behavior, which mediates the link to sustainable performance, moderated by pro-environmental attitude.	Managers should implement GHRM practices and environmental-specific transformational leadership while fostering pro-environmental attitudes to enhance sustainable performance in the dairy industry.
15	Green means long life - green competencies for corporate sustainability performance: A moderated mediation model of green organizational culture and top management support	To examine the direct effect of green competencies (GCs) on corporate sustainability performance (CSP), the mediating role of top management support (TMS), the moderating effect of green organizational culture (GOC), and the moderated mediation of GOC and TMS in the relationship between GCs and CSP.	The study confirms the direct, mediating, moderating, and moderated mediation effects among green competencies, top management support, and green organizational culture on corporate sustainability performance in Saudi firms.	To enhance sustainability performance, companies should focus on cultivating green competencies, particularly in green organizational cultures, to motivate top management to support green initiatives, while leveraging mechanisms and boundary conditions for optimal deployment of

No	Article Name	Objectives	Findings	Recommendations
				green competencies
16	The Impact of Green Human Resources Management Practices on the Relationship between Commitment to Social Responsibility and Sustainable Performance	To examine the moderating role of green human resource management practices on the relationship between commitment to social responsibility and sustainable performance.	The study found that organizations' commitment to social responsibility positively impacts sustainability performance, and the application of green human resources management practices enhances the positive effect of social responsibility on sustainable performance.	Business organizations should prioritize green environmental practices in their recruitment processes, hire individuals who align with green policies, and integrate environmental and social issues into the company's vision and mission.
17	The effect of green competencies and values on carbon footprint on sustainable performance in healthcare sector	To investigate how green competencies and values related to carbon footprint directly influence sustainable performance and to assess the indirect influence through the willingness to mitigate carbon emissions.	Green competencies and carbon footprint values enhance sustainable performance by mediating the relationship between green competencies, values, and performance.	Healthcare managers and policymakers should promote green competencies and carbon footprint values to improve sustainability, with future research exploring additional factors.
18	Corporate Social Responsibility, Green Human Resources Management, and Sustainable Performance: Is Organizational Citizenship Behaviour towards Environment the Missing Link?	To investigate the mediating role of organizational citizenship behavior towards the environment in the relationship between green HRM, CSR, and sustainable performance.	Organizational citizenship behavior towards the environment significantly mediates the relationship between CSR, green HRM practices, and sustainable performance.	Organizations should enhance green HRM practices and promote environmental citizenship behaviour to improve CSR and sustainable performance.
19	Achieving Green Performance through Green Human Resources	To examine how GHRM, GKM, and GC affect green performance in the	Green performance is positively influenced by GHRM, GKM, and GC, with GHRM and	Healthcare organizations should enhance GHRM, GKM, and GC to improve green

No	Article Name	Objectives	Findings	Recommendations
	Management, Green Knowledge Management and Green Competency	healthcare sector in Jakarta.	GKM improving it indirectly.	performance effectively.
20	Green competence framework: evidence from China	To examine the influence of individual green competencies (GCs) on organizational green practices and performance using Robert's competencies framework.	Acquired GCs, such as environmental knowledge and green purchase attitude, positively influence individual green behavior and organizational performance.	Firms should verify acquired GCs during employee selection to enhance green performance potential.
21	Green Human Resource Competency Mechanisms: Moderator Role Between Green Supply Chain and the Oil and Gas Industry Environmental Performance	To examine the impact of green human resource (GHR) competency mechanisms on the relationship between green supply chain management (GSCM) practices and environmental performance (EP).	GHR competency mechanisms significantly moderate the relationship between GSCM practices and environmental performance, reducing negative environmental impacts in the oil and gas industry.	HR managers in UAE petroleum companies should align green skills with environmental performance to enhance sustainable practices and reduce environmental impacts.
22	The Innovative Human Resource Management Framework: Impact of Green Competencies on Organisational Performance	To investigate how green competencies influence organizational performance and their relationship with employees' willingness to engage in green activities.	Green competencies significantly influence individuals' willingness to participate in green activities, positively affecting organizational performance and sustainability.	Businesses should integrate green competencies into HR practices to enhance employee engagement and improve social responsibility and environmental sustainability.
23	Green Human Resource Management as a Catalyst for Sustainable Performance: Unveiling the Role of Green Innovations	To investigate the relationship between GHRM and sustainable performance, focusing on the mediating role of green innovation and the moderating influence of	Green HRM positively impacts sustainability, with management support and transformational leadership enhancing the effectiveness of green innovations and sustainability efforts.	SMEs should leverage GHRM practices and transformational leadership to foster green innovation and achieve sustainable performance

No	Article Name	Objectives	Findings	Recommendations
		transformational leadership.		across environmental, economic, and social dimensions.
24	Associations between environmental factors and adaptive skills of people with intellectual and developmental disabilities in educational settings	To examine the relationship between environmental factors and target adaptive skills of students with intellectual and developmental disabilities in educational settings.	Environmental factors, including restorative features and controllable characteristics, positively influence students' adaptive skills, especially in conceptual/practical and social skills.	Educational settings should integrate restorative and controllable environmental features to enhance adaptive skills in students with intellectual and developmental disabilities.

Source: Processed by the author (2025)

3. RESULTS AND DISCUSSION

The 24 studies included in this review collectively contribute valuable insights into the role of Green Human Resource Management (GHRM) and its influence on sustainability outcomes across various sectors. These studies primarily emphasize the direct and indirect effects of GHRM practices, green competencies, and leadership on environmental, economic, and social performance. Below, we present the key results and corresponding discussions.

RESULTS

GHRM Practices and Sustainable Performance

Several studies indicated a positive relationship between GHRM practices—such as green recruitment, training, and performance evaluation—and sustainable organizational performance. Green HRM practices contribute significantly to reducing environmental impacts and improving organizational sustainability by aligning employee behaviour with green goals. These practices are essential in fostering a workplace culture focused on environmental responsibility.

Green Competencies and Environmental Behaviour

The studies consistently demonstrate that green competencies—defined as environmental knowledge, attitudes, and skills—are crucial in shaping employees' pro-environmental behaviour. GHRM practices focused on developing these competencies play a significant role in enhancing employees' willingness to engage in green initiatives. This suggests that organizations that invest in developing green skills are better equipped to foster sustainability within their workforce.

Leadership's Role in Sustainability

Transformational leadership, as highlighted in several studies, is a key moderator in the relationship between GHRM practices and sustainable performance. Leaders who support and champion green initiatives can significantly influence the effectiveness of GHRM practices. They create an environment that encourages the adoption of sustainable behaviours, which is critical for achieving long-term environmental goals.

Mediating Role of Green Innovation

A critical finding from the studies is that green innovation acts as a mediator in the relationship between GHRM practices and sustainable performance. Green process and product innovations, driven by effective GHRM,

contribute to improved environmental performance. These innovations are essential for organizations aiming to stay competitive while addressing environmental concerns.

Organizational Citizenship Behaviour (OCB)

Organizational Citizenship Behaviour (OCB) toward the environment was identified as a key mediator between GHRM practices and sustainable performance in some studies. Employees who exhibit OCB toward the environment are more likely to engage in green initiatives, which in turn enhance the overall sustainability of the organization. This finding underscores the importance of fostering a positive organizational culture that supports sustainability initiatives.

Impact of Green Knowledge Management (GKM)

The role of Green Knowledge Management (GKM) in enhancing sustainable performance is also emphasized in several studies. Green knowledge sharing, learning, and innovation are critical to driving sustainability efforts in organizations. The integration of GKM with GHRM practices facilitates the dissemination of green knowledge across the organization, leading to more informed and effective decision-making related to sustainability.

Sector-Specific Insights:

The studies covered various sectors, including healthcare, manufacturing, and oil and gas, each highlighting different aspects of how GHRM and sustainability practices manifest in specific industries. For instance, in the healthcare sector, the focus was on the integration of GHRM practices with green innovation and leadership to enhance environmental sustainability. In contrast, the oil and gas sector emphasized the role of green competencies and leadership in mitigating environmental impacts through green supply chain management.

The Role of Transformational Leadership:

Transformational leadership's role in driving sustainability within organizations was repeatedly highlighted across multiple studies. Leaders who are committed to green initiatives significantly impact the success of GHRM practices. Their ability to inspire and motivate employees to embrace sustainability practices leads to improved organizational performance across environmental, economic, and social dimensions.

Moderating Effects of Organizational Culture:

Several studies also pointed to the moderating effects of organizational culture in shaping the relationship between GHRM practices and sustainable performance. A strong green organizational culture supports the adoption of sustainable practices, which is crucial for the successful implementation of GHRM initiatives. This finding suggests that organizations must cultivate a culture that aligns with their green goals to maximize the impact of GHRM practices.

Green Competencies and Willingness to Engage in Green Activities:

Green competencies were found to positively influence employees' willingness to engage in green activities, contributing to improved organizational sustainability. Employees with a strong understanding of environmental issues and a positive attitude toward sustainability are more likely to participate in green initiatives. This underscores the importance of integrating green competencies into HRM practices to foster a more sustainable workforce.

Impact of Environmental Design on Adaptive Skills:

In the educational context, environmental design was found to significantly impact students' adaptive skills, particularly for those with intellectual and developmental disabilities. The restorative and controllable features of the environment were associated with improved social and practical skills. This highlights the importance of designing environments that support sustainable behaviours and learning outcomes.

DISCUSSION

The findings from the 24 studies emphasize that integrating green practices into HRM, leadership, and innovation is vital for sustainable performance. GHRM plays a critical role in promoting green competencies, influencing employee behaviour, and fostering innovation, all of which contribute to environmental, economic, and social sustainability.

Furthermore, organizational culture and environmental design are key to the success of sustainability initiatives. Establishing a green culture supports GHRM practices and motivates employees to engage in sustainability efforts. Organizations that strategically align GHRM with green competencies and leadership are better positioned to achieve sustainability. Future research should continue exploring these relationships across various industries.

4. Conclusion

In conclusion, the integration of Green Human Resource Management (GHRM), green competencies, leadership, and innovation is crucial for achieving sustainable performance in organizations. The findings from the 24 studies highlight the importance of fostering a green organizational culture, leadership support, and environmental design in driving environmental, economic, and social sustainability. GHRM practices significantly influence employee behaviour and contribute to the success of sustainability initiatives. Future research should focus on further understanding the role of GHRM across different industries to optimize its potential in achieving long-term sustainability goals.

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