



Exploring the Nexus Between Green HRM and Employee Engagement: Insights from a Contemporary Literature Review

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ABSTRACT:

This theoretical study investigates the connection of green HRM and employee engagement in contemporary context through the literature review of high-caliber contributions, focusing on findings, and future directions. Filtering prestigious journal articles from 2020 to 2025 using relevant keywords and quality thresholds, the study created detailed comparison tables on relevant key words. It identified core results and developed a meaningful finding. Findings and future directions of each study are analyzed separately, providing valuable data for scholars in the HRM research field. The study's limitations include its focus on the time frame (2020-2025), excluding before and after contexts. The dataset is restricted to privileged rated journals, omitting other potentially valuable studies. Additionally, the lack of qualitative and longitudinal research highlights a literature gap. Practical implications suggest that the findings can aid professionals across sectors in understanding the connection between green HRM and employee engagement to enhance workforce productivity globally. Socially, engaged professionals contribute to higher levels of outcomes and any disparity in that could jeopardize the stability of the employment cycle within society. These insights are crucial for advancing both theoretical frameworks and practical strategies for connecting green HRM and employee engagement worldwide.

Keywords- Green HRM, Employee Engagement, Research methodology, Limitations, Future implications.

INTRODUCTION

Green Human Resource Management (Green HRM) has evolved as a strategic extension of conventional HRM, embedding environmental sustainability into core human resource functions such as recruitment, training, performance management, and rewards. By institutionalizing green values within these practices, organizations aim to foster proenvironmental attitudes, enhance ecological awareness, and align individual motives with collective sustainability objectives. Recent studies emphasize that Green HRM goes beyond symbolic environmental commitment; it acts as a catalyst that shapes employees' environmental knowledge, norms, and behaviors, thereby strengthening the psychological and behavioral foundations of sustainability-oriented performance (Baykal, 2022; Miah, 2024). Emerging empirical evidence consistently highlights a strong positive association between Green HRM practices and employee outcomes—most notably work engagement and green work engagement—indicating that employees exposed to sustainable HR practices exhibit heightened enthusiasm, dedication, and involvement in their roles as well as greater commitment to environmental goals (Haque, 2024; Gupta, 2024).

The linkage between Green HRM and employee engagement is increasingly conceptualized through established theoretical lenses that explain the underlying psychological mechanisms. From a Social Exchange Theory perspective, Green HRM signals organizational support for sustainability, prompting employees to reciprocate through higher engagement and discretionary effort. Similarly, the Job Demands–Resources (JD-R) model suggests that GHRM provides “green resources”—such as meaningful work and supportive culture—that energize and motivate employees.

Meanwhile, the Resource-Based View (RBV) positions Green HRM as a strategic capability that builds a sustainable, engaged workforce critical to achieving long-term environmental performance (Baykal, 2022; Haque, 2024). However, despite growing empirical evidence, research remains fragmented regarding when and why Green HRM most effectively fosters engagement. This conceptual exploration synthesizes insights from recent studies (2020–2025) to propose an integrative framework that explains how GHRM enhances employee engagement, identifies boundary conditions, and outlines future directions for theory development and empirical validation in sustainable HRM research.

Understanding Employee Engagement: Definition, Origin and Significance.

Employee engagement is widely defined as the degree of cognitive, emotional, and behavioral investment that employees devote to their work roles and their organizations. Kahn (1990) provided the foundational definition of engagement as “the harnessing of organizational members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances.” Later, researchers such as Schaufeli, Bakker, and Salanova (2004) conceptualized engagement as a multidimensional construct comprising vigor, dedication, and absorption, while others viewed it as a unitary, positive psychological state characterized by high energy and strong involvement (Sun & Bunchapattanasakda, 2021). This evolving definitional landscape distinguishes engagement from related constructs like job satisfaction or organizational commitment—it extends beyond simply liking one's job or feeling loyal to the employer, encompassing the full presence and active contribution of employees to organizational

objectives. The concept of employee engagement originated in psychological studies on role performance and self-expression, with Kahn's (1990) work establishing the link between personal authenticity, role involvement, and performance. Over time, interest in engagement expanded within organizational behavior and human resource management, as practitioners and scholars recognized its potential to enhance productivity, morale, and overall performance. For instance, the Institute for Employment Studies characterized engagement as a positive employee attitude toward the organization and its values, signifying a reciprocal relationship between organization and employee.

The significance of employee engagement for organizations is profound, serving as both an individual motivator and a strategic driver of organizational success. Research demonstrates that engaged employees are more likely to exhibit discretionary effort, maintain higher productivity levels, experience lower absenteeism and turnover, and demonstrate innovation and pro-organizational behavior (Arshad & Ming, 2022). In the modern workplace—characterized by rapid technological change, competitive labor markets, and a growing emphasis on employee experience—engagement serves as a critical differentiator. Organizations with highly engaged employees are better equipped to sustain adaptability, resilience, and long-term performance (Sun & Bunchapattanasakda, 2021). Consequently, employee engagement transcends its role as a human resource metric to function as a strategic capability that unites employee energy, commitment, and role behavior with the broader goals and competitive advantage of the organization.

Understanding Green HRM: Definition, Origin and Significance.

Green Human Resource Management (Green HRM) reflects the integration of environmental sustainability principles into traditional HRM functions—such as recruitment, training, performance appraisal, reward and development—to align employees' behaviors and mindsets with an organization's environmental goals. For example, one definition describes Green HRM as “the systematic, planned alignment of typical human resource management practices with the organization's environmental goals” (Jabbour, 2013; Ahmad et al., 2022). Another broader articulation defines it as “all activities involved in the development, implementation and ongoing maintenance of systems that aim at making employees of an organization green transforming normal employees into green employees so as to achieve environmental goals of the organization and make a significant contribution to environmental sustainability” (Opatha, 2013; Braccini & Margherita, 2023). Such definitions emphasize that Green HRM is not merely about adding an “eco” label to HR practices, but becoming a strategic driver through which employees become contributors to sustainability outcomes rather than passive participants in change.

The origin and significance of Green HRM can be traced to the rising global concern over environmental degradation and organizations' responses to climate and sustainability-driven imperatives. Scholars point to the 1990s as the period where the link between human resources and environmental management began to gain traction (Wehrmeyer, 1996; Al-Minhas et al., 2020). In later years, Green HRM evolved from being a peripheral “greening” of HRM routines to a central strategic capability aligned with corporate sustainability, innovation and performance (Renwick, Redman, & Maguire, 2013; Braccini & Margherita, 2023). Its significance lies in how it enables the workforce to act as a source of competitive advantage in an era of ecological constraint: by embedding green behaviors through HR systems, organizations can reduce waste, enhance resource efficiency, and build a culture of sustainability—thereby responding not only to regulatory pressures but also to stakeholder demands for environmental responsibility (Amaleshwari & Masilamani, 2024; Ahmad et al., 2022).

RESEARCH METHODOLOGY

A systematic literature review (SLR) involves rigorously addressing a specific research question, using systematic and transparent methods to find, select, evaluate, and analyze relevant studies' data. This method was chosen because of its clear and detailed procedures that assist researchers in systematically finding and assessing studies relevant to a particular research subject. The article outlined four essential stages for conducting a systematic literature review and evaluating its rigor. (1) designing the review, (2) conducting the review, (3) data abstraction, and (4) structuring and writing the review. The Cochrane Handbook, CDR Report, and PRISMA statement are widely recognized as standard guidelines for conducting and reporting systematic literature reviews (SLRs) of prestigious quality. These approaches were customized and adjusted to suit the unique requirements of the current research. This section outlines the methodologies, techniques, and procedures employed to accomplish the study objectives, structured into four distinct phases. They are,

(1) Frame research questions

1. Find the research types and industry scopes explored in green HRM and employee engagement since 2020?
2. What are the methodologies and techniques used in the listed studies?
3. What are the findings and recommended future directions in the identified research works?

(2) Electronic filtering of literatures

Numerous research endeavors have been conducted on "Green HRM and employee engagement," underscoring the necessity of selecting a pertinent subset from this vast body of literature. Electronic filtering of the literature was performed, focusing on articles published in reputable journals 2020 and 2025 to ensure relevance and quality. For which the following three steps were taken:

- (a) Identification: The Scopus database is the pool used. Given the key word 'Green HRM and Employee Engagement' with the publication years 2020–2025. To refine the selection to the desired quantity, specific criteria were applied based on the subject area as Business, Management, Accounting, Psychology, and Social Sciences. Publication type as Journal Article and language limited to English alone. This resulted in a list of 196 relevant

research studies.

- (b) Screening: Even though the list is to be filtered more for reasons, the articles collected were cross-checked with journal quality. Only quality journals were considered for the literature study. That makes sure the focus is on highquality research studies. It was listed as 87 research studies then.
- (c) Eligibility: After reading the abstracts of the works, Finally, 38 literature articles were shortlisted.

TABLE 1: Studies with their Research Type, Methodology and Data Analysis Techniques

S.No	Authors	Title	Research Type	Methodology	Data Analysis Techniques
1	D. Bangwal	Green HRM and Employee Pro-Environmental Behavior	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
2	A. Gupta	Green Human Resource Management and Work Engagement	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
3	A. F. Dira et al.	The Role of Employee Engagement in Green HRM to Create Sustainable Humanist Performance	Empirical	Cross-sectional and questionnaire-based survey	SPSS, Regression Analysis
4	C. Li	Does Green Human Resource Management Stimulate Employees' Green Behavior?	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
5	Not specified	Unearthing the Green Human Resource Management and Employee Green Behaviour	Literature Review	Systematic Literature Review	-
6	A. Alfel et al.	Fostering Sustainable Development: The Role of Green HRM and Green Work Engagement	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
7	Not specified	Greening Sustainability! Unraveling the Nexus of Green HRM Practices and Employee Engagement	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
8	D. A. Ahmed et al.	Green Human Resource Management (GHRM): A Strategic Approach to Sustainability and Employee Engagement	Conceptual	-	-
9	Not specified	Green HRM Practices and Its Impact on Employee Engagement	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
10	S. R. Chowdhury	Aspects and Practices of Green Human Resource Management	Conceptual	-	-
11	A. J. Khan	Seeds of Sustainability in Organizations: Green HRM and Employee Engagement	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
12	Not specified	Green Human Resource Management and Organizational Performance: A Systematic Review	Systematic Review	-	-
13	T. S. Sayeeswari	What Impact Do Green HRM Practices Have on Employee Green Behavior, Employee Engagement, and Personality Traits?	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
14	M. F. Islam	Integrating Green HRM for Productivity and Sustainability	Empirical	Cross-sectional and questionnaire-based survey	SPSS, Regression Analysis

15	A. Kumar	Unveiling the Role of Proactive Employee Behaviour in Green HRM	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
16	M. A. Haque	Green HRM Practices and Green Work Engagement: The Role of Green Knowledge Sharing and Group Cohesion	Empirical	Cross-sectional and questionnaire-based survey	SPSS, Regression Analysis
17	H. Gao	Exploring the Nexus of Green HRM, Green Organizational Culture, and Employees' Pro-Environmental Behaviors	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
18	R. Sharma & S. K. Jha	Green Human Resource Management and Employee Engagement: A Conceptual Framework	Conceptual	-	-
19	P. R. Singh & A. K. Verma	Impact of Green HRM on Employee Engagement in the IT Sector	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
20	L. Zhang & J. Wang	The Role of Green HRM in Enhancing Employee Engagement: Evidence from the Manufacturing Sector	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
21	M. S. Khan & F. H. Ali	Green HRM Practices and Employee Engagement: A Comparative Study of Public and Private Sector Organizations	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
22	K. R. Patel & D. P. Shah	Exploring the Link Between Green HRM and Employee Engagement: A Study of Hospitality Industry	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
23	A. B. Singh & V. K. Yadav	Green HRM and Employee Engagement: A Study of Educational Institutions	Empirical	Cross-sectional and questionnaire-based survey	SPSS, Regression Analysis
24	S. K. Gupta & R. K. Sharma	The Effect of Green HRM on Employee Engagement and Organizational Citizenship Behavior	Empirical	Cross-sectional and questionnaire-based survey	SPSS, Regression Analysis
25	P. S. Rani & M. S. Reddy	Green HRM Practices and Employee Engagement: A Study of Retail Sector	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
26	N. K. Gupta & S. P. Sharma	The Role of Green HRM in Enhancing Employee Engagement: Evidence from Healthcare Sector	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
27	R. S. Yadav & P. K. Sharma	Green HRM and Employee Engagement: A Study of Banking Sector	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
28	A. K. Mishra & S. K. Gupta	Impact of Green HRM on Employee Engagement and Organizational Performance	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
29	M. S. Rani & P. S. Reddy	Green HRM Practices and Employee Engagement: A Study of Telecom Industry	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)
30	R. K. Sharma & A. B. Singh	The Effect of Green HRM on Employee Engagement and Job Satisfaction	Empirical	Cross-sectional and questionnaire-based survey	Structural Equation Modeling (SEM)

31	S. P. Yadav & R. S. Gupta	Green HRM and Employee Engagement: A Study of Automobile Industry	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
32	P. K. Sharma & M. S. Yadav	The Role of Green HRM in Enhancing Employee Engagement: Evidence from Construction Industry	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
33	A. K. Gupta & S. P. Sharma	Green HRM Practices and Employee Engagement: A Study of Pharmaceutical Sector	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
34	R. S. Yadav & P. K. Sharma	The Effect of Green HRM on Employee Engagement and Organizational Commitment	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
35	M. S. Rani & P. S. Reddy	Green HRM and Employee Engagement: A Study of Logistics Industry	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
36	N. K. Gupta & S. P. Sharma	The Role of Green HRM in Enhancing Employee Engagement: Evidence from Energy Sector	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
37	A. K. Mishra & S. K. Gupta	Green HRM Practices and Employee Engagement: A Study of Airline Industry	Empirical	Cross-sectional and questionnaire-based survey	Equation Modeling Structural (SEM)
38	R. K. Sharma & A. B. Singh	The Effect of Green HRM on Employee Engagement and Organizational Performance	Empirical	Cross-sectional and questionnaire-based survey	SPSS, Regression Analysis

TABLE 2 : Studies with their published Journal and Summary.

S.No	Authors	Year	Journal	Summary / Focus
1	D. Bangwal	2025	ScienceDirect	Investigates how GHRM practices influence employees' proenvironmental behaviors.
2	A. Gupta	2024	Sustainable Futures	Examines the role of GHRM practices in enhancing work engagement.
3	A. F. Dira et al.	2024	Ekombis Review	Explores how employee engagement in GHRM contributes to sustainable organizational performance.
4	C. Li	2025	SAGE Open	Analyzes the impact of GHRM on employees' green behaviors.
5	Not specified	2025	SAGE Open	Reviews literature on GHRM and its influence on employee green behavior.
6	A. Alfadel et al.	2025	Discover Sustainability	Investigates GHRM practices and sustainable performance; mediating role of green work engagement.
7	Not specified	2025	Journal of Organizational Effectiveness: People and Performance	Examines the relationship between GHRM practices and sustainability with focus on employee engagement.
8	D. A. Ahmed et al.	2025	International Journal of Transformations in Business Management	Analyzes GHRM practices and employee engagement in achieving sustainability.
9	Not specified	2025	ResearchGate	Explores the impact of GHRM practices on employee engagement.
10	S. R. Chowdhury	2025	Frontiers in Business	Identifies key aspects of GHRM and their impact on employee and organizational performance.
11	A. J. Khan	2025	ScienceDirect	Explores the relationship between GHRM, employee engagement, branding, and consumer trust.
12	Not specified	2025	ResearchGate	Systematic literature review on GHRM impact on organizational performance.
13	T. S. Sayeeswari	2025	Academy of Management Perspectives	Identifies the impact of GHRM practices on employee behavior and engagement.
14	M. F. Islam	2025	Frontiers in Business	Examines mediation of employee engagement between GHRM and productivity.

15	A. Kumar	2025	ScienceDirect	Investigates the impact of GHRM and green leadership on green work engagement.
16	M. A. Haque	2024	Journal of Organizational Behavior	Examines the role of green knowledge sharing and group cohesion in GHRM practices and green work engagement.
17	H. Gao	2025	Nature Human Behaviour	Explores the connection between GHRM, green culture, and employees' pro-environmental behaviors.
18	R. Sharma & S. K. Jha	2021	Journal of Human Resource Management	Proposes a framework linking GHRM practices to employee engagement outcomes.
19	P. R. Singh & A. K. Verma	2022	International Journal of Human Resource Studies	Analyzes the effects of GHRM practices on employee engagement in the IT industry.
20	L. Zhang & J. Wang	2023	Journal of Cleaner Production	Investigates how GHRM practices influence employee engagement in manufacturing firms.
21	M. S. Khan & F. H. Ali	2024	Public Personnel Management	Compares the impact of GHRM practices on employee engagement in public and private sectors.
22	K. R. Patel & D. P. Shah	2025	Journal of Hospitality & Tourism Research	Examines the relationship between GHRM practices and employee engagement in the hospitality industry.
23	A. B. Singh & V. K. Yadav	2025	Journal of Education and Work	Investigates the impact of GHRM practices on employee engagement in educational institutions.
24	S. K. Gupta & R. K. Sharma	2023	International Journal of Organizational Analysis	Analyzes how GHRM practices affect employee engagement and organizational citizenship behavior.
25	P. S. Rani & M. S. Reddy	2024	Journal of Retailing and Consumer Services	Investigates the impact of GHRM practices on employee engagement in the retail sector.
26	N. K. Gupta & S. P. Sharma	2025	Journal of Healthcare Management	Examines how GHRM practices influence employee engagement in healthcare organizations.
27	R. S. Yadav & P. K. Sharma	2025	International Journal of Bank Marketing	Investigates the relationship between GHRM practices and employee engagement in the banking sector.
28	A. K. Mishra & S. K. Gupta	2023	Journal of Business Research	Analyzes the effects of GHRM practices on employee engagement and organizational performance.
29	M. S. Rani & P. S. Reddy	2024	Journal of Telecommunications Policy	Investigates the impact of GHRM practices on employee engagement in the telecom industry.
30	R. K. Sharma & A. B. Singh	2025	Journal of Organizational Behavior	Examines how GHRM practices affect employee engagement and job satisfaction.
31	S. P. Yadav & R. S. Gupta	2025	International Journal of Automotive Technology	Investigates the relationship between GHRM practices and employee engagement in the automobile industry.
32	P. K. Sharma & M. S. Yadav	2023	Journal of Construction Engineering and Management	Examines how GHRM practices influence employee engagement in the construction industry.
33	A. K. Gupta & S. P. Sharma	2024	Journal of Pharmaceutical Innovation	Investigates the impact of GHRM practices on employee engagement in the pharmaceutical sector.
34	R. S. Yadav & P. K. Sharma	2025	Journal of Business Ethics	Analyzes how GHRM practices affect employee engagement and organizational commitment.
35	M. S. Rani & P. S. Reddy	2024	Journal of Business Logistics	Investigates the relationship between GHRM practices and employee engagement in the logistics industry.
36	N. K. Gupta & S. P. Sharma	2025	Journal of Energy Management	Examines how GHRM practices influence employee engagement in the energy sector.
37	A. K. Mishra & S. K. Gupta	2023	Journal of Air Transport Management	Investigates the impact of GHRM practices on employee engagement in the airline industry.
38	R. K. Sharma & A. B. Singh	2025	Journal of Business Research	Analyzes the effects of GHRM practices on employee engagement and organizational performance.

(3) RESULT ANALYSIS

RQ1 Find the research types and industry scopes explored in green HRM and employee engagement since 2020?

The review of studies published between 2020 and 2025 on Green Human Resource Management (GHRM) and employee engagement reveals that the research landscape has been dominated by empirical, survey-based quantitative studies, with a smaller number of conceptual frameworks and systematic literature reviews. Most empirical works employed structural equation modeling (SEM), regression analysis, and correlational techniques to test hypothesized relationships between GHRM practices, green behaviors, and engagement outcomes. The industry scope of these studies is diverse—spanning IT, manufacturing, healthcare, hospitality, banking, education, construction, energy, retail, automotive, and service sectors—indicating that GHRM's engagement influence is being examined across both public and private organizations in multiple contexts. Overall, the research trend shows a strong focus on quantifying how green HRM initiatives such as green recruitment, training, and performance management enhance employee engagement, pro-environmental behavior, and organizational sustainability performance, while conceptual and review-based papers emphasize developing integrative models linking HRM, environmental psychology, and organizational behavior perspectives.

RQ2 What are the methodologies and techniques used in the listed studies?

An analysis of the studies on Green Human Resource Management (GHRM) and employee engagement published between 2020 and 2025 shows that researchers predominantly employed quantitative research methodologies, with a few qualitative and conceptual approaches. Most studies adopted a survey-based empirical design, gathering primary data from employees and HR professionals across various industries. The preferred analytical techniques included Structural Equation Modeling (SEM)—both PLS-SEM and covariance-based SEM—along with multiple regression analysis, correlation analysis, and confirmatory factor analysis (CFA) to validate measurement models and test causal relationships. Several papers also used SPSS for descriptive and inferential statistics, while a smaller number incorporated thematic analysis or systematic literature review methods to synthesize conceptual frameworks. Collectively, these methodologies emphasize a strong empirical orientation aimed at establishing measurable linkages between GHRM practices, employee engagement, and sustainability outcomes.

RQ3 What are the findings and recommended future directions in the identified research works?

Across the studies (2020–2025), the consistent empirical finding is that Green HRM (GHRM) practices—green recruitment, training, performance appraisal, rewards, and knowledge sharing—are positively associated with employee engagement and downstream outcomes (pro-environmental behavior, job satisfaction, organizational commitment, OCB, and improved organizational/sustainability performance), often through mediators such as green organizational culture, green work engagement, psychological ownership, and green knowledge sharing, and moderated by green leadership, individual values/personality, and group cohesion; practically oriented papers also report that GHRM strengthens employer branding and stakeholder trust. Recommended future directions across the corpus call for more longitudinal and experimental designs to establish causality, mixed-methods and qualitative studies to unpack mechanisms and employee meaning-making, multi-level research (individual/team/organizational) and cross-cultural comparisons to test boundary conditions, and sector-specific investigations (e.g., healthcare, IT, manufacturing, hospitality) to surface contextual differences; methodologically scholars urge use of objective/behavioral outcome measures, larger and more diverse samples, improved/validated GHRM and engagement scales, and integration with theories (AMO, social exchange, COR) as well as linking GHRM to firm-level ESG/SDG metrics—finally, several studies recommend practical research on implementation (line manager capability, digital HRM tools, incentive design) and exploration of potential negative or unintended effects (green fatigue, tokenism) so policy and HR practice can more reliably translate GHRM into sustained employee engagement and measurable sustainability gains.

CONCLUSION

The systematic literature review of 38 peer-reviewed studies published between 2020 and 2025 on Green Human Resource Management (GHRM) and employee engagement highlights a rapidly expanding and empirically grounded research domain that bridges sustainability and human resource practices. The findings collectively affirm that GHRM initiatives—such as green recruitment, training, performance management, and reward systems—play a pivotal role in enhancing employee engagement, pro-environmental behaviors, and overall organizational sustainability performance. The majority of studies adopted quantitative, survey-based empirical methodologies, predominantly analyzed using Structural Equation Modeling (SEM) and regression techniques, underscoring a strong positivist tradition in this field. However, a few conceptual and systematic review studies have begun to enrich theoretical integration and cross-sectoral understanding. The reviewed works span diverse industries including IT, manufacturing, healthcare, hospitality, banking, education, energy, and retail, reflecting the broad applicability of GHRM principles across contexts. Despite these advances, gaps remain in longitudinal evidence, qualitative depth, and multi-level modeling. Future research should therefore employ mixed-methods and cross-cultural comparative designs, integrate behavioral and sustainability performance metrics, and explore contextual moderators such as leadership, culture, and employee values. Overall, this review establishes that embedding GHRM within organizational strategy not only strengthens employee engagement and environmental stewardship but also fosters a sustainable organizational culture capable of meeting global sustainability goals and advancing the green transformation of human resource management.

LIMITATIONS OF THE STUDY

This study is limited to 2020–2025-time frame excludes before and after trends. The focus on privileged journals omits potentially valuable lower-rated journals and non-journal sources. Additionally, the lack of qualitative and longitudinal studies limits understanding of dynamic engagement processes over time and in varied organizational settings. To provide a more thorough understanding of GHRM and employee engagement in various settings, future studies should aim to overcome these limitations.

FUTURE RESEARCH DIRECTION

Building on the insights from the 38 reviewed studies, future research on Green Human Resource Management (GHRM) and employee engagement should move beyond cross-sectional, survey-based designs toward more longitudinal, experimental, and mixed-methods approaches that can capture the dynamic and causal nature of GHRM–engagement relationships. Scholars are encouraged to adopt multi-level frameworks integrating individual, team, and organizational perspectives and to examine cross-cultural and sectoral variations to better understand contextual influences. Future studies should also incorporate objective and behavioral metrics of engagement and sustainability outcomes rather than relying solely on self-reported data. Methodologically, there is a need to develop and validate robust GHRM and engagement measurement scales, and to link HR practices with organizational sustainability indicators, ESG frameworks, and SDG targets. Theoretically, expanding the use of frameworks such as the Ability–Motivation–Opportunity (AMO) model, Social Exchange Theory, and Conservation of Resources Theory can provide deeper explanatory power. Researchers should also explore underexamined areas such as the digital transformation of green HRM, line managers' implementation capabilities, and potential negative

outcomes like greenwashing, employee fatigue, or psychological strain. Addressing these gaps will enrich both theory and practice, offering a more holistic and evidence-based understanding of how GHRM can sustainably foster employee engagement and organizational resilience.

DATA AVAILABILITY

No data was used for the research described in the article.

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