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Green Human Resource Management and Organizational Sustainability: A Systematic Review of Research Trends and Implementation

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Abstract

This study presents a systematic review of research on Green Human Resource Management (GHRM) over the last ten years, with a focus on its role in promoting organizational sustainability. Keyword mapping using VOSviewer revealed that GHRM serves as a central theme, connecting related fields such as environmental management and sustainable practices. Analysis of the literature indicates that a majority of studies (63%) were published within the past three years, predominantly in high-impact (Q1) journals, and primarily employed quantitative approaches in developing country contexts. Research attention has concentrated on fostering employees' environmentally responsible behavior and enhancing environmental sustainability, whereas social sustainability and economic outcomes remain underexamined. Evidence suggests that the adoption of GHRM practices in organizations is moderate, and few studies have evaluated implementation comprehensively. This review contributes to the literature by highlighting the link between GHRM and corporate sustainability objectives and identifying gaps for future research. It relies exclusively on peer-reviewed articles from Scopus and Web of Science, offering insights for both scholars and practitioners seeking to understand the impact of GHRM on sustainable organizational performance.

Keywords: Green Human Resource Management, Sustainable Practices, Environmental Performance, Pro-Environmental Behavior, GHRM

Introduction

In today's dynamic environment, organizations confront complex challenges that span economic, social, and environmental domains [1, 2]. Growing awareness of environmental issues has prompted attention from governments, businesses, consumers, and researchers alike [3, 4]. Since the Brundtland Report [5], the concept of sustainable development has required organizations to balance economic growth with social responsibility and environmental stewardship. Both public and private entities are increasingly expected to mitigate the environmental impacts of their operations [6, 7]. Concurrently, climate change, industrialization, and urban expansion have introduced new pressures on organizations, influencing regulations and competitive landscapes worldwide. Policymakers have responded by establishing measures to reduce greenhouse gas emissions and limit global warming to 1.5°C, motivating firms to adopt low-carbon technologies and renewable energy solutions [8, 9]. These actions reflect a growing recognition that sustainability is integral to competitiveness and long-term organizational success [10].

Organizations have increasingly prioritized creating environmentally friendly workplaces as a strategic approach to gain competitive advantage [11, 12]. Implementing green initiatives affects multiple organizational processes, including

production, supply chains, finance, waste management, and human resources [13, 14]. These initiatives are intended to enhance sustainability performance, enabling organizations to provide goods and services that meet economic, social, and environmental objectives simultaneously [15]. The Triple Bottom Line (TBL) framework—covering economic, environmental, and social performance—remains the standard for assessing organizational sustainability outcomes [16]. Environmental performance emphasizes reducing emissions, waste, and hazardous material use [17]. Social performance relates to contributions toward employee welfare, community engagement, and corporate reputation [18]. Economic performance focuses on minimizing costs associated with environmentally impactful activities [19, 20].

Despite these frameworks, research has primarily focused on environmental outcomes, with social and economic dimensions less explored [21-23]. In particular, the mechanisms linking green human resource management (GHRM) practices to employee pro-environmental behavior remain underdeveloped, requiring further study of social and psychological drivers [11, 24]. Integrating sustainable practices requires multidisciplinary approaches that combine environmental, managerial, and employee perspectives to minimize organizational ecological footprints [25-27]. While sustainability research initially emerged from environmental sciences, recent studies increasingly draw from social sciences and management fields to understand organizational behaviors and strategies [20, 28].

Green Human Resource Management has emerged as a strategic approach to support sustainability in organizations [29, 30]. GHRM involves aligning HR practices with environmental objectives to encourage sustainable behavior among employees, such as reducing waste, conserving resources, and promoting recycling [31, 32]. Core components include developing green competencies, motivating environmentally responsible behavior, and providing opportunities to act sustainably [33, 34]. Common practices include green training, performance evaluation, and reward systems that incentivize eco-friendly behavior [7, 35]. The concept was first formalized in Wehrmeyer's (1996) *Greening People: Human Resources and Environmental Management* and later developed by Renwick *et al.* [36] as GHRM, emphasizing sustainability in workforce management. The overarching goal of GHRM is to cultivate a workforce that is both environmentally conscious and aligned with organizational and societal sustainability objectives [37, 38].

Several studies have explored the relationship between Green Human Resource Management (GHRM) practices and outcomes such as employee green behavior [7, 35, 39, 40] and environmental performance [41-43]. Beyond quantitative investigations, numerous systematic literature reviews (SLRs) have examined GHRM from different perspectives. For example, Bahuguna *et al.* [44] conducted a bibliometric analysis of GHRM, Mukherji and Bhatnagar [45] provided a conceptual and theoretical narrative review, Kainzbauer *et al.* [46] performed a co-citation meta-analysis linking sustainable HRM to corporate sustainability, and Pham *et al.* [47] offered a comprehensive GHRM review. Other notable reviews include bibliometric analyses [20, 48], sector-specific reviews in the hotel industry [49], and evidence-based reviews [13]. Additionally, Renwick *et al.* [34], Ahmad [50], and Ren *et al.* [51] focused on GHRM policies, practices, conceptualization, and research frameworks.

Although these studies have contributed to understanding GHRM, most reviews have been limited to narrative synthesis, bibliometric analysis, or conceptual discussions, often without explicitly linking GHRM to organizational sustainability. Moreover, very few studies have combined synthesis with meta-analysis, highlighting a gap in comprehensive literature reviews that assess GHRM's role in improving sustainability performance across economic, environmental, and social dimensions. To address this gap, the present study undertakes a systematic review that integrates narrative analysis and meta-analytic approaches, providing a more holistic understanding of GHRM and sustainability.

The primary aim of this research is to examine the intersection of GHRM and organizational sustainability in published academic literature. Specifically, it seeks to identify trends in GHRM research, assess the extent of its implementation, and explore opportunities for future investigation. The study addresses the following research questions:

RQ1: How has GHRM research related to sustainability evolved over the past decade?

RQ2: What are the antecedents and determinants of GHRM adoption?

RQ3: How does GHRM influence individual-level outcomes, particularly employee pro-environmental behavior?

RQ4: How does GHRM contribute to organizational sustainability, considering the triple bottom line (TBL) framework?

RQ5: What is the current level of GHRM implementation within organizations?

This review contributes to the literature in several ways. First, it provides a systematic assessment of GHRM research with a specific focus on its linkage to sustainability outcomes based on the TBL framework. Second, it highlights key antecedents, such as organizational culture and leadership, that facilitate effective GHRM implementation. Third, while most prior studies focus on internal outcomes like green behavior or environmental performance, this study uniquely examines the practical implementation of GHRM to advance organizational sustainability. In summary, the findings of this review offer guidance for scholars and practitioners seeking to explore emerging research areas and understand the role of GHRM in promoting sustainable organizational practices.

Materials and Methods

This study adopts a systematic literature review (SLR) approach to examine, synthesize, and draw insights from the existing research on Green Human Resource Management (GHRM). The primary objective is to evaluate and categorize the available literature, identify prevailing research trends, and highlight potential directions for future investigation. The review methodology follows the framework outlined by Danese *et al.* [52] and subsequently applied by Podgorodnichenko *et al.* [53]. The study seeks to address several key objectives. First, it investigates the development and trends in GHRM research related to sustainability over the past decade. Second, it identifies the main antecedents that influence GHRM adoption. Third, it examines the role of GHRM in shaping individual-level outcomes, particularly sustainable employee behavior. Fourth, it explores how GHRM contributes to organizational sustainability within the framework of the Triple Bottom Line (TBL), covering economic, environmental, and social dimensions. Finally, the study considers organizational and contextual factors that facilitate or constrain the implementation of GHRM practices.

To establish clear conceptual boundaries, the review began by defining GHRM and sustainability, particularly the relationship between GHRM practices, employee green behaviors, and sustainability performance. The analysis focused on both organizational-level and individual-level outcomes. Organizational-level outcomes included environmental performance, social sustainability, economic performance, and circular economy initiatives, while individual-level outcomes encompassed employee behaviors such as green behavior, pro-environmental actions, green values, green culture, and green self-efficacy. By integrating GHRM and sustainability concepts, the review provides a comprehensive understanding of the role of GHRM in promoting sustainable organizational performance. The study also considers country and cultural contexts, as GHRM practices and outcomes may vary across regions and industries. Furthermore, the review draws on theoretical perspectives such as the Resource-Based View, AMO theory, Natural Resource-Based View, Stakeholder Theory, Social Cognitive Theory, Human Capital Theory, and Social Exchange Theory.

The literature search was conducted using the Scopus and Web of Science (WoS) databases, selected for their comprehensive coverage, reliable search functionalities, and relevance to systematic review studies [49, 54, 55]. Duplicate records were removed through careful verification in Excel. Keyword searches included "Green Human Resource Management," "Green HRM," and "GHRM." In Scopus, the search was applied to titles, abstracts, and keywords, filtered for publications in English between 2012 and March 2023. In WoS, the search was applied to the Topic field, which encompasses titles, abstracts, author keywords, and Keywords Plus, also filtered for English-language publications and excluding retractions, letters, editorials, and other non-research document types. Only publications directly addressing GHRM in relation to sustainability, particularly outcomes aligned with the TBL framework, were included in the review. Although keyword-based searches may not capture all relevant studies, this approach is widely recognized as best practice for systematic reviews. The final selection of papers was carefully cross-checked to minimize potential biases.

The review covers a ten-year period from 2012 to March 2023, a timeframe chosen to capture the growing attention to environmental training, cleaner production, and sustainability practices, particularly following the announcement of the United Nations Sustainable Development Goals in 2015. The endpoint of March 2023 ensures inclusion of the most recent literature to provide an up-to-date overview of GHRM and its role in promoting sustainability in organizations.

Applying exclusion criteria for initial screening

The initial screening process involved excluding books and book chapters to focus solely on peer-reviewed journal articles. Each retrieved article, along with its references, was carefully examined to determine its relevance to the objectives of the study. The abstracts and conclusions of the remaining articles were reviewed to assess their alignment with the research focus. Full texts were then evaluated to confirm eligibility and ensure the quality of the studies included in the review.

Validating search results

To ensure the reliability of the search, the authors repeated the search process and title-based filtering at multiple points. Articles were excluded if they did not address the integration of GHRM with sustainability at either the individual or organizational level, if they were conference papers, or if they were review articles. This approach ensured that the final selection consisted exclusively of empirical research directly relevant to the study's objectives.

Data extraction

For each selected study, detailed information was extracted, including author(s), article title, journal name, year of publication, theoretical framework, research methodology, study location, industry context, key findings, abstract, keywords, citation count, and publisher. This comprehensive data collection facilitated structured synthesis and comparative analysis across studies.

Article selection

The article selection process followed the PRISMA framework for systematic literature reviews, as illustrated in **Figure 1**. Initially, 640 articles were retrieved from Scopus and 503 from Web of Science using the predefined search keywords. After

removing duplicates, 696 articles remained for title screening. Screening the titles for relevance reduced the pool to 497 articles. Subsequent abstract screening eliminated 303 articles, leaving 194 full-text articles for eligibility and quality assessment. Finally, 89 articles were selected for synthesis based on their uniqueness, clear objectives, and significance to the topic. This rigorous process ensured that the final dataset provided a robust basis for analyzing the role of GHRM in promoting sustainability in organizational settings.
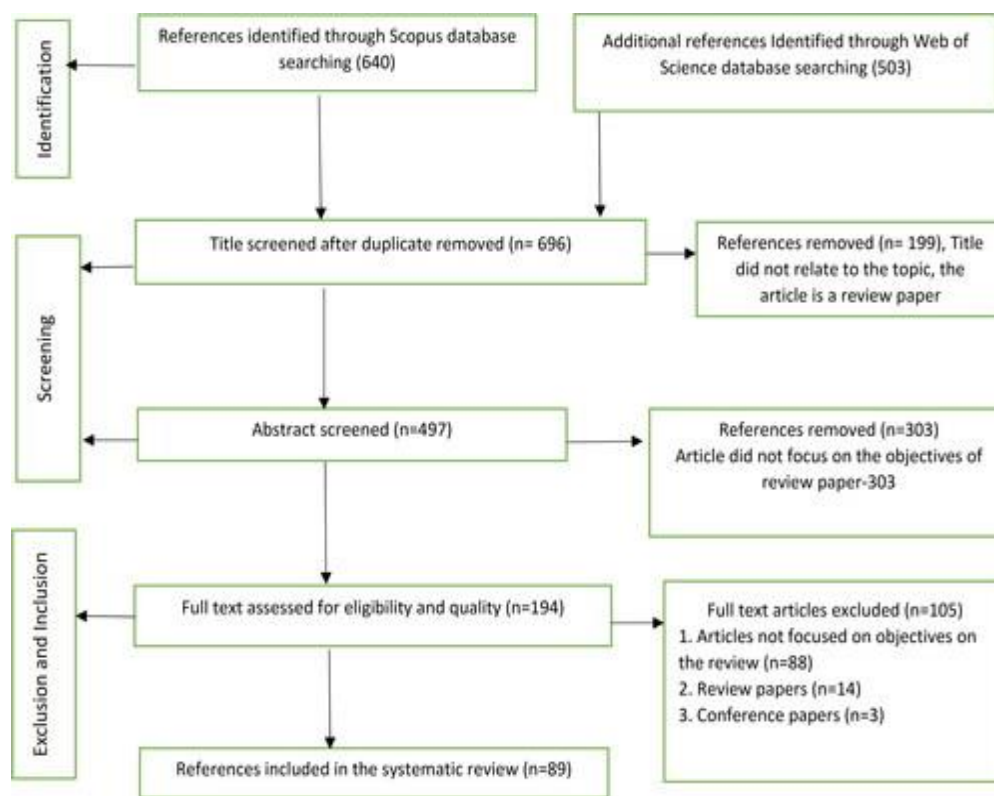

Figure 1. Systematic literature review using PRISMA

Classification of articles and analysis
To organize the findings, the 89 selected studies were categorized in line with the specific objectives of this review. A detailed bibliographic dataset was created in Excel, capturing key information from each article. The data were then analyzed using Excel for quantitative summaries and VOSviewer to visualize patterns, relationships, and thematic trends, allowing for a comprehensive understanding of the current GHRM literature.

Results

Meta-Analysis

Journals
The influence of academic research is often reflected in the reputation and ranking of the journals where it is published. Journals are classified into quartiles (Q1–Q4), with Q1 journals representing the highest impact based on metrics such as citations. Analysis of the selected GHRM studies shows that most were published in high-ranking Q1 journals, underscoring the scientific recognition of this research area. According to the Scimago Journal Rank, 87 of the 89 articles included in this review appeared in journals that meet established quality standards. **Figure 2** illustrates the distribution of publications from 2016 to 2023, highlighting a noticeable increase in research activity in recent years. In fact, nearly two-thirds of the reviewed studies (63%) were published in the last three years, indicating a growing and accelerating interest in GHRM within the academic community.
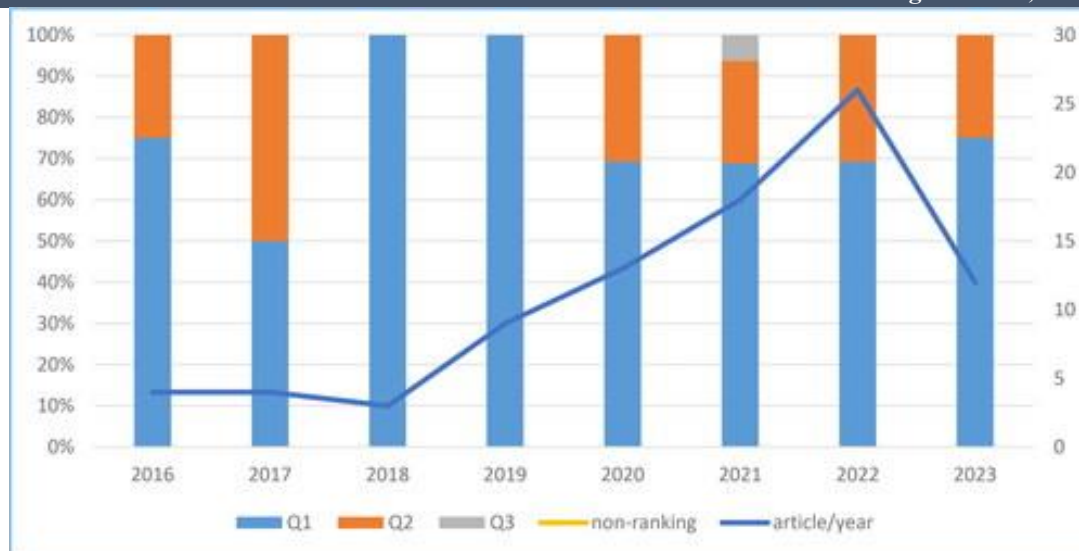
Figure 2. Distribution of studies by rating and evolution of the number of articles examined ($n = 89$) (Source: Authors' design from article reviewed)

Keywords Co-Occurrence

This section examines the primary keywords appearing in the selected GHRM studies, as illustrated in **Figure 3**. The analysis was conducted using VOSviewer, which maps relationships between terms to visualize connections across the literature. In the figure, lines link pairs of keywords, with the thickness of each line representing the frequency with which the two terms appear together in publications—the thicker the line, the stronger the association. VOSviewer calculates the strength of these connections by comparing the observed co-occurrence of terms to the expected co-occurrence if the terms were statistically independent, allowing the software to identify clusters of closely related concepts and highlight prominent themes within the field.
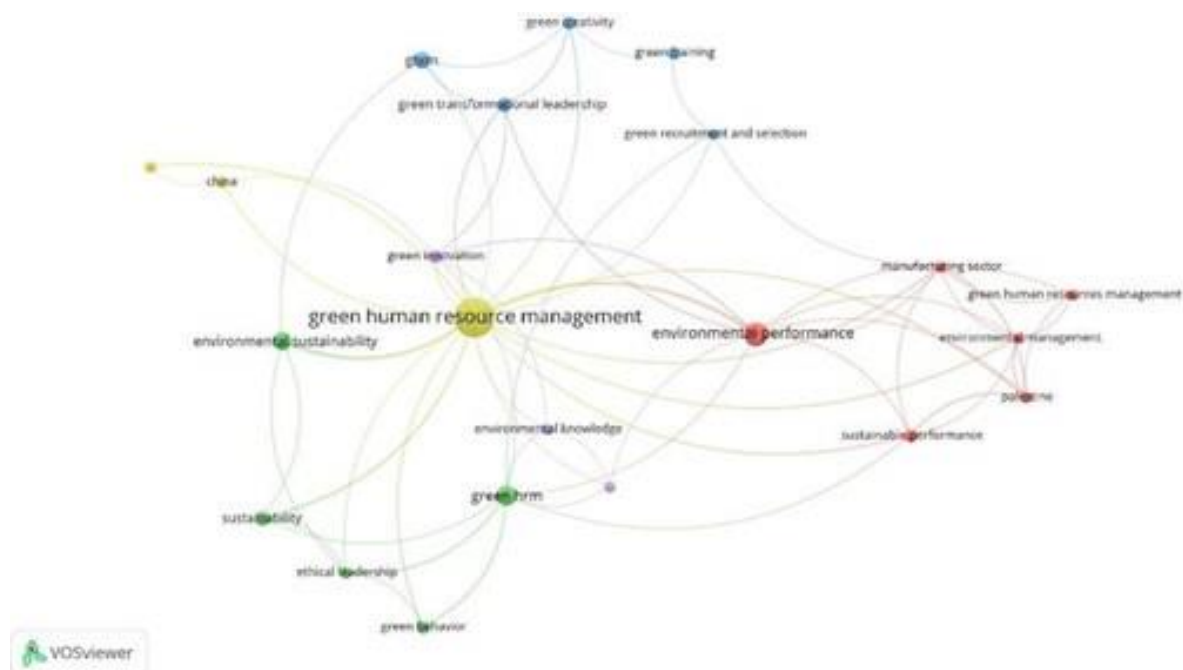

Figure 3.

Figure 3 illustrates the distribution of keywords in GHRM research from 2016 to 2023, as mapped using the authors' design based on the reviewed articles. Analysis with VOSviewer identified five major keyword clusters (Appendix 1), each representing a set of interconnected research topics and related publications. The results indicate that "green human resource management" serves as a central, umbrella term, linking to related areas such as environmental management and environmental sustainability. This clustering highlights the thematic focus of recent studies and the interrelationships among key concepts in the field.

Underpinning theories

This section examines the theoretical frameworks underpinning the reviewed studies, which provide the foundation for research design and guide the interpretation of findings **(Figure 4)**. Among the 89 articles analyzed, 62 explicitly applied established theories to investigate the relationship between GHRM and sustainability, while the remaining studies did not reference any theoretical framework. The Ability, Motivation, and Opportunity (AMO) theory emerged as the most frequently used, appearing in 14 of the 62 theory-driven studies. According to Tóth *et al.* (2020), the AMO framework suggests that organizations can enhance employee green behavior and overall sustainability performance by equipping staff with relevant skills, fostering motivation, and creating opportunities to engage in environmentally responsible actions. The consistent use of AMO theory underscores its relevance in explaining how GHRM practices can influence sustainable organizational outcomes.
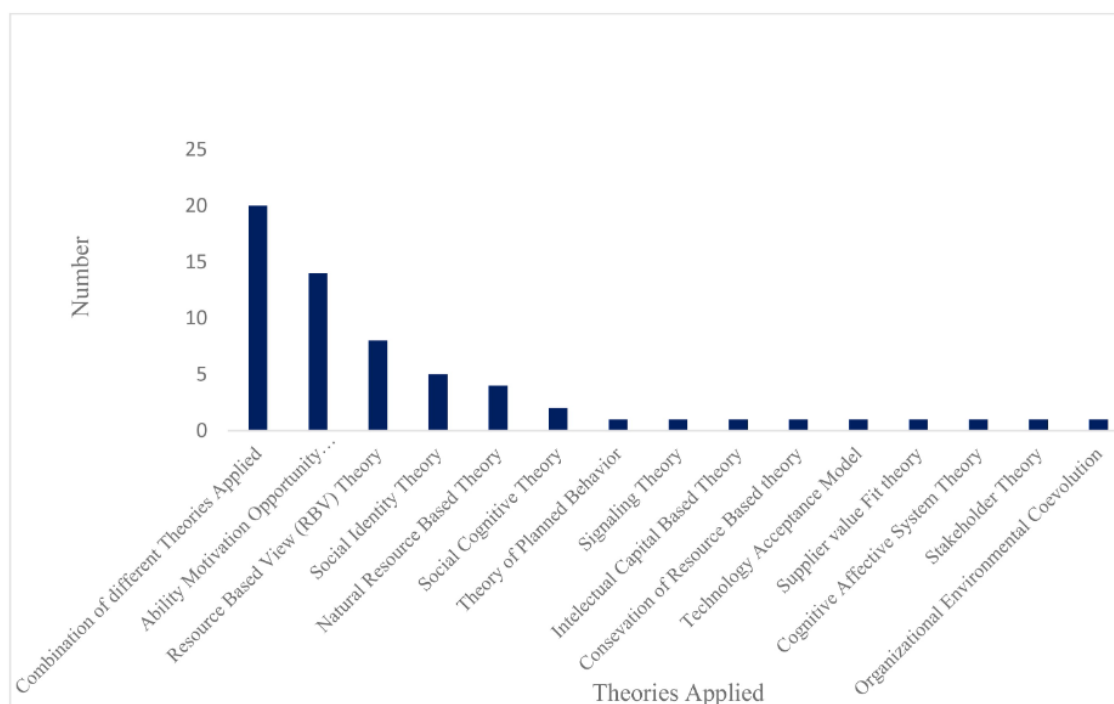

Figure 4. Underlying theory in the GHRM literature and sustainability (Source: Authors' design from articles reviewed)

The analysis of theoretical frameworks revealed that the Resource-Based View (RBV) was employed in eight of the 62 theory-driven studies. Social Identity Theory (SIT) also featured prominently, particularly in examining the psychological processes of employees in response to organizational green initiatives. Other frequently applied theories included the Natural Resource-Based View, Social Cognitive Theory, and Signaling Theory. Less commonly, researchers drew on frameworks such as the Technology Acceptance Model, Theory of Planned Behavior, Supplier Value Fit Model, Intellectual Capital-Based Theory, and the Norm Activation Model. In several studies, authors combined multiple theoretical perspectives to strengthen their analysis, such as AMO with RBV, AMO with Social Exchange Theory, RBV with Social Exchange and Positive Psychology, or Social Cognitive Theory alongside other approaches.

Research methods
The reviewed studies employed a range of research methodologies, including conceptual papers, qualitative research, quantitative research, and mixed-method approaches. Among the 89 selected articles, quantitative methods were predominant, with 75 studies using surveys or questionnaires to examine the relationship between GHRM and organizational sustainability outcomes. Only six studies applied qualitative approaches, six used mixed methods, and two were purely conceptual. Quantitative research largely focused on outcomes such as environmental performance and employee pro-environmental behavior, highlighting a strong emphasis on measurable impacts of GHRM practices in organizations.
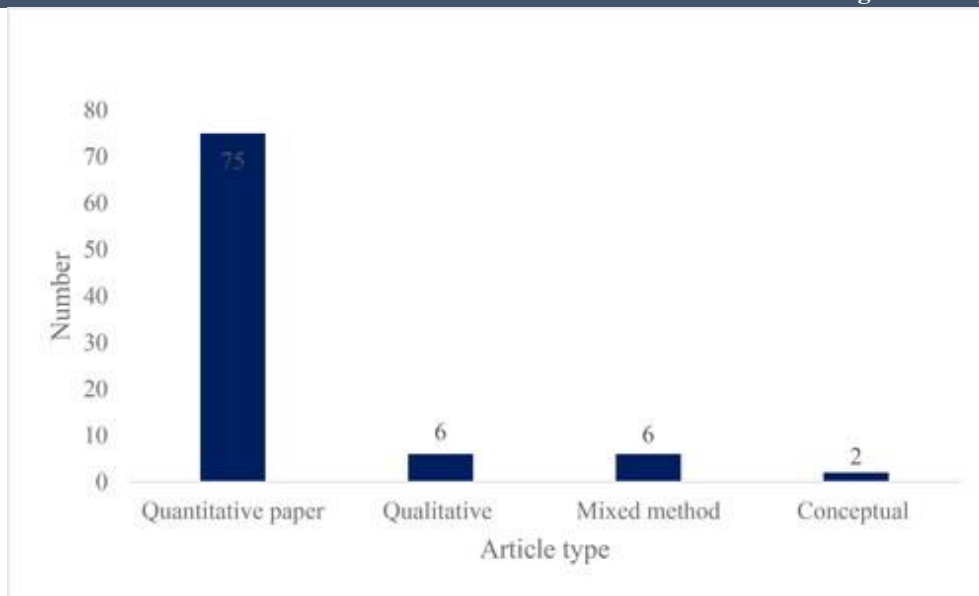
Figure 5. Distribution of methodologies (authors' design from articles reviewed)

Geographic and industry contexts

For the purpose of this review, the studies were classified according to the national context in which they were conducted, dividing them into developing countries, developed countries, cross-country comparisons, and studies not specific to any country. The analysis indicates that the majority of research has been carried out in developing countries (n = 79), with Pakistan (n = 18), China (n = 14), Malaysia (n = 12), and India (n = 6) being the most frequently studied contexts. In contrast, only a small number of studies (n = 7) were conducted in developed nations, mainly in Europe, including Italy, Portugal, Spain, England, and France.

Regarding industry focus, most studies were concentrated in the manufacturing sector (n = 39) and the service sector (n = 26), while relatively few investigations addressed government or nonprofit organizations. Notably, research in developed countries has tended to emphasize the service industry, whereas studies in developing nations are predominantly centered on manufacturing. This distinction reflects the industrial structure and economic priorities of these regions. In many emerging economies, rapid industrialization and organizational practices contribute to environmental pressures, often compounded by limited awareness or implementation of sustainable practices within organizations.
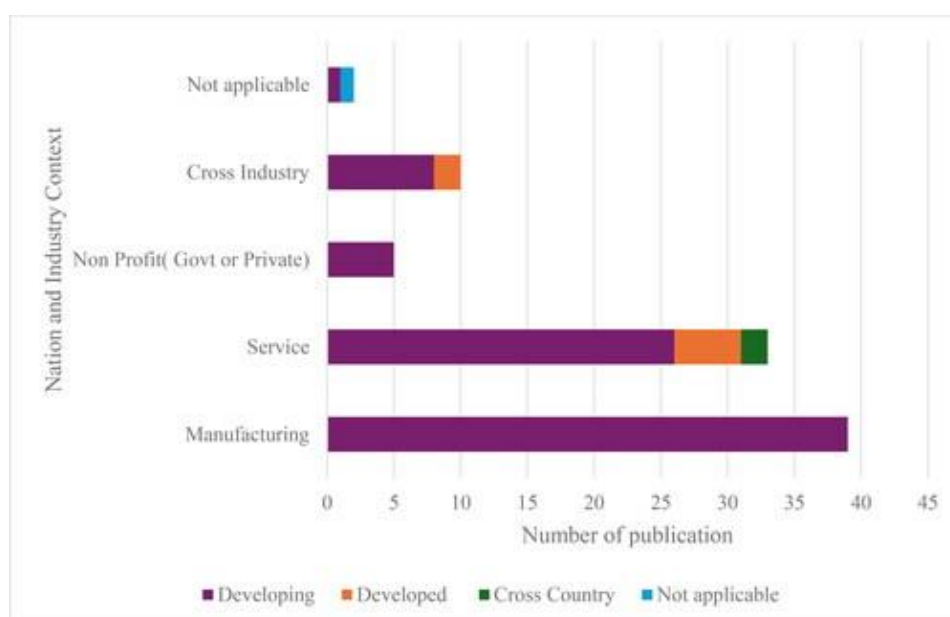
Figure 6. Nation and industry context (Source: Authors' design from article reviewed)

Organizational and employee-related antecedents of GHRM

The review identified several factors at both organizational and individual levels that drive the adoption of Green Human Resource Management (GHRM) practices. Organizational culture and leadership emerged as key influences, shaping the extent to which GHRM is implemented. For instance, ethical leadership has been shown to encourage the integration of green

HRM initiatives, which subsequently fosters employees' environmentally responsible behaviors [56]. Employees who hold strong personal green values further reinforce the effectiveness of these leadership-driven initiatives.

In addition, GHRM often serves as a mediating mechanism in the relationship between leadership and sustainability outcomes. Studies indicate that green transformational leadership positively impacts green innovation and employee pro-environmental behavior through the implementation of GHRM practices [57, 58]. Similarly, organizational environmental culture, top management support, and a strong orientation toward sustainability significantly enhance the adoption of green HRM practices [59-61]. Research by Sun *et al.* [62] also emphasizes that GHRM mediates the effect of green transformational leadership on environmental performance, highlighting the role of leadership in promoting sustainable HR practices that cascade throughout the organization.

Table 1. Antecedents and determinant of GHRM practices in the organizations (author's design from the article reviewed).

Authors	Findings
Yusliza *et al.* [63]	Commitment from senior leadership strongly influences both CSR initiatives and all facets of GHRM. CSR also markedly shapes green job analysis and role definitions, though its overall effect on GHRM proved weaker than expected.
Yong *et al.* [64]	Green human capital and green relational capital each exert a clear positive effect on the adoption of GHRM practices.
Islam *et al.* [65]	Ethical leadership serves as a foundational driver of GHRM, in-role green conduct, and voluntary eco-friendly actions. GHRM mediates the link between ethical leadership and green behaviors, while personal eco-values amplify the connection between GHRM and such behaviors.
Shafaei *et al.* [60]	An organization's eco-conscious culture correlates positively with GHRM implementation, which subsequently boosts overall environmental performance.
Khatoon *et al.* [66]	Active GHRM initiatives enhance employees' environmental awareness and strengthen their dedication to the firm's sustainability goals (OECE).
Sun *et al.* [62]	Green Transformational Leadership (GTL) directly improves environmental performance (EP). GHRM acts as a constructive mediator in this relationship, and Environmental Value (EM) further intensifies the GTL–EP linkage as a moderator.
Al Doghan *et al.* [59]	A supportive environmental culture within the organization significantly fosters both GHRM and Green Innovation (GI). Both GHRM and GI emerge as robust predictors of Environmental Sustainability (ES) and Environmental Performance (EP).
Guerci *et al.* [67]	Pressure from customers and regulators positively drives environmental outcomes. GHRM serves as a key mediator, enhancing the impact of its own components on environmental performance.
Farrukh *et al.* [57]	Green transformational leadership promotes pro-environmental employee behavior through the mediating influence of GHRM. Environmental knowledge further moderates and strengthens this pathway.
Mohtar & Rajiani [68]	Malaysian manufacturing firms integrate employee ability, motivation, and opportunity via GHRM to align with and advance national green policies.
Zahrani [61]	GHRM activities, backed by top management support, commitment, and eco-oriented HRM, positively drive green team creativity and sustainable practices, yielding substantial gains in organizational sustainability.
Singh *et al.* [58]	GHRM mediates the path from green transformational leadership to green innovation, which in turn indirectly elevates the firm's environmental performance.
Haldorai *et al.* [69]	Top management green commitment (TMGC) and green intellectual capital (GIC) directly bolster GHRM and hotel environmental performance (EP). GHRM also mediates the connections between TMGC–EP and GIC–EP.
Kara *et al.* [70]	Organizational sustainability precedes and significantly enhances GHRM and innovative work behavior. GHRM partially mediates the effect of sustainability on innovation.
Islam *et al.* [56]	GHRM plays a central mediating role between ethical leadership and employees' environmental citizenship behavior. Individual green values further reinforce the tie between GHRM and such citizenship actions.

Several organizational and individual factors have been found to significantly influence the implementation of GHRM within firms. Top management commitment and corporate social responsibility (CSR) initiatives [63], as well as the presence of green human and relational capital [64], positively contribute to GHRM adoption. Similarly, employees' environmental knowledge [66] and the combination of top management's green commitment with green intellectual capital [69] enhance the integration of sustainable HR practices. Beyond direct effects, GHRM also functions as a mediating mechanism, linking green innovation [58] and pressures from customers and regulatory stakeholders [67] to improved organizational environmental performance.

However, not all antecedents exhibit a consistent impact. For example, green structural capital was found to have no significant association with GHRM [64], and in the Indian context, green employee empowerment and HR business partner engagement did not show a positive influence on GHRM adoption [66]. Additionally, organizational sustainability itself has been identified as a driver for GHRM practices [70]. Based on the analysis of the studies summarized in **Table 1**, the primary antecedents of GHRM are consolidated and illustrated in **Figure 7**.
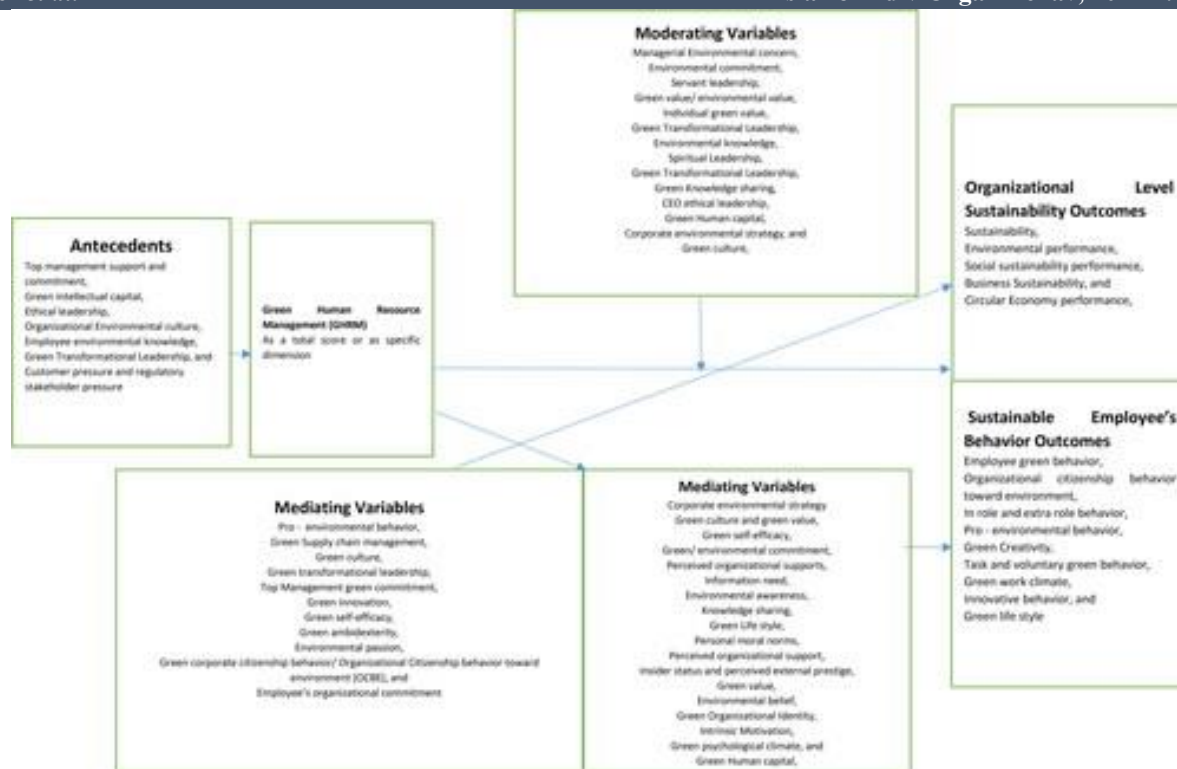
Figure 7. Synthesis of the main antecedents, mediators, moderators, and consequences of GHRM linked to sustainability by the selected papers (Source: Authors' design from article reviewed)

Influence of GHRM on sustainable employee behavior

The literature shows that implementing Green Human Resource Management (GHRM) has wide-ranging effects on employees' environmentally responsible behaviors. Studies indicate that GHRM encourages employees to engage in both core job-related green activities and voluntary, extra-role behaviors, encompassing task-specific initiatives, personal green practices, and adherence to moral norms supporting sustainability [35, 39, 40, 71, 72]. Programs such as green training have been identified as crucial mechanisms, not only enhancing employees' voluntary eco-friendly behaviors but also fostering green creativity and intrinsic motivation through reinforcement of green values [24, 73].

Beyond direct behavioral effects, GHRM contributes to the development of a pro-environmental organizational climate and strengthens employees' green psychological capital, thereby supporting wider sustainable practices within the workplace [74-76]. It also promotes innovative thinking and green creativity among staff, while simultaneously increasing engagement and organizational commitment toward sustainability objectives [70, 77-79].

Importantly, many studies highlight indirect pathways through which GHRM shapes employee behavior. These include mediating roles for knowledge sharing, perceptions of corporate social responsibility, personal moral norms, green mindfulness, perceived organizational support, and psychological green climate [39, 72, 80-84]. GHRM further influences green organizational citizenship behaviors and sustainable lifestyles by shaping employees' perceptions of a supportive green work environment [75, 85]. Additionally, factors such as green self-efficacy, green work engagement, and the presence of a culture that promotes sustainability act as critical intermediaries for enhancing employee green creativity [77, 78, 86, 87].

Overall, the evidence demonstrates that GHRM operates through a combination of direct and indirect mechanisms to reinforce environmentally responsible behaviors, with key outcomes summarized in **Figure 7**.

Table 2. GHRM consequences on sustainable employee's behavioral outcomes (author's design from the article reviewed).

Authors	Findings
Zhang *et al.* [40]	Employee lifecycle management, training, empowerment, and managerial involvement all strongly and positively drive in-role and extra-role eco-friendly actions. Rewards, however, significantly affect only voluntary green behaviors. The information-sharing role further mediates the link between GHRM and overall green conduct.
Rubel *et al.* [72]	GHRM markedly boosts both in-role and extra-role green service behaviors. Green knowledge exchange fully mediates the connection between GHRM and eco-conscious service delivery.
Pham *et al.* [88]	Green incentives and performance systems substantially enhance in-role green output and organizational citizenship behavior for the environment. This effect is amplified when hotels operate under Western management.
Fawehinmi *et al.* [81]	GHRM positively shapes personal moral norms (PMN), which in turn indirectly foster employee green behavior (EGB) via PMN mediation.

Ye *et al.* [39]	For newcomers, GHRM directly promotes in-role and extra-role green actions, mediated by perceived insider status and external organizational prestige.
Nawaz Khan [89]	GHRM moderation does not alter direct or indirect paths from green leadership to emotional exhaustion. However, GHRM significantly shapes the mediation through green attitudes.
Zhu *et al.* [90]	GHRM strongly drives voluntary green behavior (VGB) and task-related green behavior (TGB). Environmental belief mediates the GHRM–VGB link, while green organizational identity mediates the GHRM–TGB relationship.
Sabokro *et al.* [84]	GHRM directly boosts employee green behavior. Indirectly, it operates through corporate social responsibility and green psychological climate within Iranian industrial settings.
Abualigah *et al.* [77]	GHRM practices significantly enhance green work engagement and creativity. Green engagement further strengthens GHRM's impact on innovation, while spiritual leadership intensifies the GHRM–engagement bond.
Hameed *et al.* [86]	GHRM fosters green creativity via perceived organizational support. Green transformational leadership moderates the tie between GHRM and perceived green support.
Khan *et al.* [82]	GHRM indirectly promotes employee green behavior through organizational green commitment. Green knowledge sharing amplifies this mediated pathway.
Darvishmotevali & Altinay [91]	GHRM positively influences task-related and proactive pro-environmental performance. Environmental awareness mediates the proactive link but not the task-related one. Servant leadership shows no moderating effect on task-related performance.
Darvishmotevali & Altinay [92]	GHRM significantly boosts both task-related and proactive pro-environmental performance. Connectedness to nature mediates both relationships, while conscientiousness strengthens the proactive pathway.
Farooq *et al.* [78]	GHRM directly and indirectly (via green self-efficacy) enhances green creativity. Green transformational leadership, however, does not moderate the indirect effect.
Chen & Wu [80]	Organizational GHRM significantly promotes employee green mindfulness, which drives green behaviors. Both green transformational leadership and green self-efficacy moderate this sequence.
Garavan *et al.* [71]	GHRM components (recruitment, selection, performance, compensation) foster voluntary workplace green behavior. Reflective moral attention partially mediates all links except recruitment.
Meng *et al.* [85]	GHRM positively shapes green lifestyles and green organizational citizenship behavior (GOCB). Green lifestyle mediates the GHRM–GOCB link, while shared green values moderate the lifestyle–GOCB relationship.
Pinzone *et al.* [83]	GHRM drives collective voluntary environmental actions. Employee willingness to support environmental initiatives partially mediates this effect. The study also categorizes three distinct GHRM practice types.
Chen *et al.* [93]	Perceived GHRM significantly boosts voluntary green behavior and creativity. Green psychological climate and harmonious environmental passion partially mediate voluntary behavior, while passion fully mediates creativity.
Muisyo *et al.* [87]	GHRM markedly enhances individual and collective green creativity and green culture enablers. Environmentally focused servant leadership strengthens both creativity pathways.
Aboramadan & Karatepe [94]	GHRM elevates perceived green organizational support in hotels, leading to improved job performance and organizational citizenship behavior toward the organization.
Rubel *et al.* [95]	GHRM fosters positive perceptions of green work climate, which in turn significantly drives pro-environmental employee behavior.
Aboramadan *et al.* [96]	In nonprofits, GHRM promotes green voice, knowledge sharing, and helping behaviors. Perceived organizational support mediates all three relationships.
Naz *et al.* [75]	GHRM and corporate environmental policies cultivate a psychological green climate that spurs pro-environmental actions. Environmental knowledge further strengthens the link to environmental performance.
Shoaib *et al.* [79]	Green recruitment, selection, training, and development build organizational commitment. Green human capital mediates these effects.
Dumont *et al.* [35]	GHRM directly enhances in-role green behavior and indirectly boosts both in-role and extra-role behaviors via psychological green climate. Individual green values do not moderate these paths.
Huo *et al.* [97]	GHRM practices (recruitment/selection, training, performance/rewards) foster green work climate and engagement, ultimately driving employee green behavior and performance.
Saeed *et al.* [76]	GHRM promotes pro-environmental behavior through pro-environmental psychological capital. Employee environmental knowledge amplifies this mediated relationship.
Wu *et al.* [73]	Green training stimulates organizational green creativity. Green values and intrinsic motivation sequentially mediate this process.
Yuan *et al.* [98]	GHRM boosts voluntary workplace green behavior via environmental commitment but reduces it through emotional exhaustion. Supervisory environmental support weakens the exhaustion pathway.
Pham *et al.* [24]	GHRM directly fosters organizational citizenship behavior toward the environment. The trio of green training, performance management, and involvement drives voluntary green actions—most effectively when performance and participation are strong. Green training stands out as a key enabler.
Chen & Yan [74]	Green psychological capital partially mediates the links from both GHRM and green transformational leadership to green organizational pride.

Impact of GHRM on organizational sustainability

The review of the literature, summarized in **Table 3**, indicates that Green Human Resource Management (GHRM) plays a pivotal role in enhancing organizational sustainability. A considerable body of research demonstrates that GHRM practices significantly improve environmental performance, helping organizations reduce their ecological footprint and adopt more sustainable operational practices [41, 99-104].

In addition to environmental outcomes, GHRM contributes positively to corporate social performance, supporting organizations in fulfilling their social responsibilities and strengthening stakeholder relationships [41, 104]. It also indirectly promotes corporate social responsibility (CSR) by mediating the effects of a sustainable business environment [99].

While the literature primarily emphasizes environmental and social dimensions, evidence regarding the economic and business performance effects of GHRM remains limited. A small number of studies suggest that GHRM may enhance economic outcomes, although more research is needed to fully understand its impact on organizational profitability and financial sustainability [105, 106].

Table 3. Organizational level sustainability outcomes of GHRM (author's design from the article reviewed).

Author	Findings
Cheema & Javed [99]	GHRM significantly fosters a sustainable workplace and strengthens corporate social responsibility by cultivating an eco-friendly business ecosystem.
Zaid *et al.* **[107]**	GHRM directly boosts sustainable performance, with green supply chain management fully mediating the connection between GHRM and long-term business sustainability.
Roscoe *et al.* **[102]**	GHRM markedly improves environmental outcomes and serves as a key driver of green culture enablers within organizations.
Gilal *et al.* **[108]**	GHRM is strongly and positively linked to environmental performance, primarily through employees' environmental passion. Individual green values further moderate this relationship.
Ren *et al.* **[109]**	GHRM indirectly enhances corporate environmental performance, fully mediated by top management's green commitment. CEO ethical leadership amplifies the GHRM–commitment link.
Yafi *et al.* **[110]**	Green training directly builds green competencies, motivations, and environmental performance. It also indirectly improves performance through the dual mediation of competencies and motivations.
Muisyo & Qin [100]	GHRM significantly elevates environmental performance, while green innovation acts as a parallel driver of enhanced firm-level green outcomes.
Al-Swidi *et al.* **[111]**	Environmental concern, GHRM, and green leadership jointly cultivate a green organizational culture that positively drives employee eco-behavior and corporate environmental results.
Nisar *et al.* **[101]**	GHRM supports hospitality environmental performance by boosting employees' green self-efficacy, which in turn promotes pro-environmental actions and hotel sustainability.
Irani *et al.* **[112]**	In hospitality, GHRM improves environmental performance when reinforced by employee environmental commitment and green process innovations.
Mohammed & Fisal [113]	In Iraqi higher education, green recruitment advances organizational sustainability, with strategic excellence serving as a mediating factor.
Yasin *et al.* **[104]**	GHRM significantly strengthens corporate environmental sustainability, which sequentially enhances social sustainability and employer branding.
Niazi *et al.* **[41]**	GHRM fosters green corporate social responsibility (GCSR) but shows no direct link to environmental performance. GCSR mediates the indirect GHRM–EP relationship, moderated by green transformational leadership.
Rehman *et al.* **[114]**	Neither GHRM nor green intellectual capital directly affects environmental performance; both operate through green innovation as a mediator.
Yong *et al.* **[38]**	Green recruitment and training significantly drive organizational sustainability, whereas green job analysis, selection, performance evaluation, and rewards show no notable impact.
Úbeda-García *et al.* **[27]**	Green high-performance work systems promote green ambidexterity, which in turn elevates environmental performance in hospitality settings.
Obeidat *et al.* **[115]**	Green strategic intent significantly enhances GHRM practices, leading to greater green empowerment in circular economies. The circular economy mediates the path from GHRM to sustainable performance.
Opoku Mensah *et al.* **[106]**	GHRM positively influences green corporate citizenship, reputation, environmental performance, and business results. Green citizenship and reputation partially mediate the link to business performance, while citizenship mediates GHRM–environmental performance.
Khatoon *et al.* **[116]**	All GHRM practices significantly advance environmental sustainability, with green compensation and rewards exerting the strongest influence.
Ahmed *et al.* **[117]**	GHRM elevates hotel environmental performance both directly and indirectly via green culture and responsibility. The relationship strengthens when employees exhibit strong green values and accountability.
Paillé *et al.* **[118]**	Green training emerges as the most effective GHRM practice for individual environmental performance. Perceived organizational environmental support amplifies this effect only among highly motivated employees.
Marrucci *et al.* **[105]**	GHRM boosts performance in EMAS-certified firms and facilitates circular economy transitions, independent of external pressures like market demand or technological support.
Khaskhely *et al.* **[119]**	GHRM and dynamic sustainable capabilities jointly and significantly enhance corporate sustainable performance.
Kim *et al.* **[120]**	GHRM practices increase employee commitment, eco-friendly actions, and overall hotel environmental performance.
Nisar *et al.* **[121]**	GHRM fosters pro-environmental psychological capital, which sequentially shapes green climate and behaviors, ultimately improving hotel environmental outcomes.
Sathasivam *et al.* **[103]**	HR managers drive environmental sustainability in the automotive sector through focused GHRM policies on training, rewards, involvement, and eco-orientation.
Umrani *et al.* **[122]**	GHRM enhances organizational attractiveness, with environmental performance and reputation sequentially mediating this effect.

Cabral & Chiappetta Jabbour [123]	Green training significantly improves environmental performance via green competencies. Proactive environmental management maturity also mediates, while environmental commitment moderates the training–performance link.
Muisyo *et al.* [124]	GHRM positively shapes green culture enablers, which in turn drive competitive green advantages for the organization.

GHRM and its effects on organizational sustainability

Evidence from the literature indicates that GHRM practices play a vital role in advancing organizational sustainability. Specific HR initiatives, such as green recruitment, selection, compensation, and rewards, have been shown to improve both environmental and social performance outcomes [119]. More broadly, organizations that implement GHRM strategies tend to strengthen overall sustainability practices, integrating environmental and social goals into their operations [107, 113]. Among various GHRM activities, green compensation and rewards appear to be particularly effective in fostering environmental sustainability, while green training has been highlighted as a strong predictor of enhanced environmental performance [116, 118, 123]. Interestingly, some studies suggest that while green recruitment and training significantly influence overall organizational sustainability, other practices such as green job analysis, selection, performance assessment, and rewards may have less measurable impact [38].

In addition to direct effects, GHRM indirectly contributes to sustainability through several mediating factors. Employees' environmental passion, green self-efficacy, and environmental commitment, as well as top management's green leadership, help translate GHRM policies into concrete environmental outcomes [101, 108, 109, 112]. Organizational culture, green CSR, innovation, and green citizenship behaviors further enhance the influence of GHRM on sustainability [41, 106, 111, 114, 117]. Emerging research also points to the circular economy as a mechanism through which GHRM supports sustainable performance [115]. **Figure 7** summarizes these organizational sustainability outcomes.

Current Levels of GHRM implementation

The practical adoption of GHRM in organizations varies, but research generally indicates a moderate level of implementation. Core practices, such as environmental training, green recruitment, performance management, employee involvement, and incentive systems, are essential for fostering pro-environmental behaviors among staff [125]. Training programs are often considered the most influential, with employee empowerment and participation following closely behind [126]. Manufacturing organizations, for instance, tend to apply these practices at a moderate intensity to maintain sustainable performance standards [127].

Sector-specific studies provide additional context. For example, European subsidiaries of a restaurant chain in the USA demonstrated varying degrees of GHRM adoption, including waste segregation, recycling initiatives, environmental education, and energy monitoring across facilities in the UK, Germany, and Sweden [128]. Across the 89 reviewed studies, a range of mediating and moderating factors were identified that influence how effectively GHRM is implemented and its impact on sustainability outcomes, as illustrated in **Figure 7**.

Table 4. Implementation of GHRM (author's design from the article reviewed).

Author	Findings
Mishra [125]	The study pinpointed environmental training, eco-focused recruitment, performance evaluation, and compensation as core GHRM components. Full adoption of these practices effectively drives pro-environmental conduct in firms, particularly when backed by senior leadership commitment and collaborative learning.
Gupta [126]	Green training and development emerged as the top driver of organizational environmental management, followed by green empowerment and involvement. Green pay and reward systems ranked third in importance among GHRM elements.
Bombiak & Marciniuk-Kluska [129]	Strong positive correlations exist between perceived impacts of specific GHRM activities and their actual adoption levels in Polish firms. Higher impact ratings directly translate to greater practical implementation.
Moraes *et al.* [130]	Among GHRM practices, only environmental training significantly boosts eco-efficiency. Notably, training effectiveness declines without complementary empowerment and teamwork support.
Jerónimo *et al.* [131]	Sustainability strategies primarily rely on green hiring, with green training playing a secondary role. Green hiring proves especially vital for older workers, while younger employees benefit more from training. Surprisingly, green compensation shows no meaningful link to sustainability.
Mousa & Othman [7]	GHRM practices are implemented at a moderate level, with green hiring, training, and involvement exerting the strongest influence. Green performance management and compensation have the weakest effects. Overall, GHRM positively drives sustainable performance, most notably in environmental dimensions and least in social ones.
Napathorn [132]	Organizations tailor GHRM to fit institutional and cultural contexts. Green recruitment enhances employer branding; green training builds awareness through on-the-job learning, mentoring, and climate improvement; green rewards deploy financial and non-financial incentives; and green employee relations foster paternalistic leadership and workplace harmony.
Elshaer *et al.* [133]	GHRM practices significantly strengthen individual green values and job satisfaction, both of which in turn elevate organizational innovative performance.

Ogbeibu *et al.* [134]	Technological turbulence, green recruitment/selection, and green training/involvement/development all positively drive green team creativity. In contrast, green performance and compensation negatively affect team creativity.
Munawar *et al.* [135]	GHRM fosters organizational green innovation, with green human capital and environmental knowledge serving as key mediators. Managerial environmental concern further strengthens the link between GHRM and green human capital.
Haddock-Millar *et al.* [128]	In European units of a U.S. restaurant chain, three subsidiaries implemented waste separation and recycling (e.g., cooking oil into biodiesel). Diverse environmental training programs and energy monitoring were applied across locations.
Sathasivam *et al.* [43]	NGOs, supportive organizational culture, and clear communication are critical enablers of GHRM adoption to meet environmental sustainability targets. These insights offer practical guidance for developing nations pursuing green goals via HRM.
Masri & Jaaron [127]	GHRM adoption stands at a moderate level and shows a strong positive correlation with environmental performance in manufacturing. The study identifies, ranks, and validates the most effective GHRM practices for enhancing environmental outcomes.

Discussion

This review highlights the influence of organizational and individual factors on the adoption of GHRM and examines how these practices contribute to sustainability at both employee and organizational levels. The discussion is organized according to the research questions.

Trends in GHRM Research (RQ1)

The analysis shows a clear upward trend in GHRM-related research over recent years, particularly in studies connecting GHRM to sustainability. Although the review period began in 2012, research specifically linking GHRM to sustainability started gaining momentum around 2016 and has continued to grow steadily. This surge reflects the increasing emphasis on environmental sustainability as a driver of competitive advantage, influenced by governmental regulations, advocacy by environmental organizations, and growing public awareness [38]. The United Nations' 2015 Sustainable Development Summit further highlighted the role of workforce participation in advancing environmental sustainability, contributing to this research expansion.

Regarding publication quality, most studies appeared in high-ranking journals, with Q1 journals dominating the sample. Keyword co-occurrence analysis reveals that "green human resource management" serves as a central term, encompassing related research areas such as environmental management and environmental sustainability. Theoretical analysis indicates that the Ability-Motivation-Opportunity (AMO) framework is the most frequently applied theory, followed by the Resource-Based View (RBV), Natural Resource-Based Theory, and Social Identity Theory. Methodologically, quantitative approaches dominate, while qualitative and mixed methods are less common, and only two studies were purely conceptual. Quantitative methods have been particularly useful for assessing the implementation level of GHRM.

Geographically, most studies focus on developing countries, especially Pakistan, Malaysia, China, and India, with the manufacturing sector being the primary context of study. Among service industries, tourism is the most frequently examined due to its significance for sustainability and brand image. These findings align with previous bibliometric analyses showing that emerging economies are the dominant focus of GHRM research, with manufacturing and service sectors receiving varying levels of attention [13, 20, 136].

Antecedents of GHRM (RQ2)

Organizational and leadership factors emerged as key determinants of GHRM adoption. Ethical leadership, green transformational leadership, environmental values and culture, top management commitment, and organizational environmental orientation significantly influence the implementation of GHRM practices. Green organizational culture serves as a critical foundation for the development and planning of GHRM initiatives [120]. Beyond internal actors such as leaders and employees, external stakeholders—including regulatory authorities, municipalities, and legislators—also exert pressure on organizations to adopt GHRM practices [51]. Institutional and cultural contexts, as well as effective communication within the organization, further support the integration of GHRM into sustainability efforts [22, 132]

GHRM and employee sustainability outcomes (RQ3)

At the individual level, GHRM practices have a pronounced impact on sustainable employee behaviors. The literature consistently highlights eco-friendly actions, including in-role and extra-role green behavior, task-related and voluntary green activities, organizational citizenship behavior toward the environment (OCBE), and pro-environmental behavior. Some studies indicate that GHRM simultaneously enhances employee green behavior and organizational outcomes, suggesting an interconnected effect between individual actions and overall organizational sustainability [50].

GHRM and organizational sustainability outcomes (RQ4)

Analysis of organizational-level outcomes reveals that most research emphasizes environmental performance, while social and economic dimensions of sustainability are comparatively underexplored. Keyword mapping further confirms that environmental management and environmental performance dominate the literature, with financial performance receiving less attention. Social sustainability, in particular, remains a relatively neglected area despite its importance within the triple bottom line framework [38, 48, 137].

Implementation level of GHRM (RQ5)

Regarding the implementation of GHRM practices, green recruitment, training, and employee involvement are identified as the most influential activities. GHRM exerts its greatest effects on environmental performance, while its impact on social sustainability is comparatively lower [7]. Overall, the evidence indicates that organizations tend to adopt GHRM practices at a moderate level, suggesting room for expansion and improvement in fully integrating sustainability into HR strategies.

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Conclusion

This systematic review highlights the substantial role of various GHRM practices in advancing organizational sustainability across economic, social, and environmental dimensions. Among these, the evidence indicates that GHRM contributes most prominently to environmental performance, suggesting that further empirical research is needed to better understand its effects on social and economic sustainability outcomes. The review also underscores the importance of organizational culture and leadership as critical drivers for the effective adoption of GHRM practices.

Beyond its direct impact on organizational sustainability, GHRM—particularly through practices such as training, rewards, and employee engagement—plays a pivotal role in shaping sustainable employee behaviors, fostering a greener workplace. These insights are valuable for researchers, practitioners, and policymakers seeking to integrate sustainability into HR strategies. This review clarifies the practical implications of GHRM, including how it influences employee behavior, organizational performance, and the alignment of individual and organizational sustainability goals. Organizations can leverage these findings to design policies and strategic initiatives that integrate green practices into daily operations, while managers and employees gain a better understanding of the importance of sustainable behaviors, leadership commitment, and the development of a green organizational culture.

Limitations and future research directions

Despite its contributions, this study has several limitations. First, the review relied exclusively on the Scopus and Web of Science databases, omitting other potentially relevant sources such as books and alternative online databases. Future studies should expand the data sources to ensure broader coverage. Second, only English-language publications were considered, which may have excluded important findings from non-English research. Including studies in other languages could enrich understanding of GHRM and sustainability. Third, conference papers were excluded, though they may contain valuable insights, particularly from emerging research on sustainability. Similarly, review articles were not included, which may have limited the comprehensiveness of the analysis.

Additionally, this review focused exclusively on GHRM in relation to sustainability and did not cover other potential areas, such as circular economy performance. The study period (2012–March 2023) may also limit the temporal generalizability of the findings, and future research could explore different or extended time frames. Finally, the review adopted a broad industrial perspective rather than focusing on specific sectors. Future research could examine GHRM implementation and sustainability outcomes within particular industries, such as tourism, healthcare, or pharmaceuticals, to identify sector-specific gaps and insights. Finally, the process of selecting articles for synthesis may introduce potential biases, which future studies could address through more rigorous selection methods or meta-analytic approaches.

References

1.   Alkhatib S, Kecskés P, Keller V. Green marketing in the digital age: A systematic literature review. Sustainability. 2023;15(16):12369.

2.   Singh SK, Pradhan RK, Panigrahy NP, Jena LK. Self-efficacy and workplace well-being: Moderating role of sustainability practices. Benchmarking: An Int J. 2019;26(6):1692-708.

3.   Usman M, Balsalobre-Lorente D. Environmental concern in the era of industrialization: Can financial development, renewable energy and natural resources alleviate some load? Energy Policy. 2022;162:112780.

4.   Vinkóczi T, Rácz É, Koltai JP. Consumer perception of the zero-waste concept: A Hungarian case study. Chem Eng Trans. 2023;107:355-60.

5.   Brundtland G. Report of the world commission on environment and development: Our common future: United Nations General Assembly; 1987.

6.   Kézai PK, Kurucz A. Crisis resilience of startup companies (the case of Hungary among the Visegrad countries with a focus on the pandemic). Sustainability. 2023;15(9):7108.

7.   Mousa SK, Othman M. The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. J Clean Prod. 2020;243:118595.

8.   González-Benito J, González-Benito Ó. A review of determinant factors of environmental proactivity. Bus Strategy Environ. 2006;15(2):87-102.

9.   IPCC. Global Warming of 1.5∘C. Geneva: IPCC; 2018. 1-616 p.

10. El-Kassar AN, Singh SK. Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. Technol Forecast Soc Change. 2019;144:483-98.

11. Gelencsér M, Szabó-Szentgróti G, Kőmüves Z, Hollósy-Vadász G. The holistic model of labour retention: The impact of workplace wellbeing factors on employee retention. Admi Sci. 2023;13(5):121-46.

12. Kiron D, Kruschwitz N, Haanaes K, Velken I, von S. Sustainability nears a tipping point. MIT Sloan ManagRev. 2011.

13. Benevene P, Buonomo I. Green human resource management: An evidence-based systematic literature review. Sustainability. 2020;12(15):5974.

14. Pintér Z, Tóth K, Bareith T, Varga J. The relationship between decision and payment habits and its relation with wasting: Evidence from Hungary. Sustainability. 2021;13(13):7337.

15. Tóth A, Juhász T, Kálmán B. Determining factors of motivational dimensions (childhood personality and workplace competition attitudes). Acta polytech Hung. 2022;19(4):229-50.

16. Hussain N, Rigoni U, Orij RP. Corporate governance and sustainability performance: Analysis of triple bottom line performance. J Bus Ethics. 2018;149(2):411-32.

17. Zhu Q, Sarkis J, Lai K. Confirmation of a measurement model for green supply chain management practices implementation. Int J Prod Econ. 2008;111(2):261-73.

18. Newman A, Miao Q, Hofman PS, Zhu CJ. The impact of socially responsible human resource management on employees' organizational citizenship behaviour: The mediating role of organizational identification. I J Human Resourc Manag. 2016;27(4):440-55.

19. Élő G, Paller G. Enhanced floating plastic waste detecting on offsets of river Tisza, Hungary. Chem Eng Trans. 2023;107:73-8.

20. Khan MH, Muktar SN. A bibliometric analysis of green human resource management based on scopus platform. Cog Bus & Manag. 2020;7(1):1831165.

21. Chiappetta Jabbour CJC, Fiorini PDC, Ndubisi NO, Queiroz MM, Piato É. Digitally-enabled sustainable supply chains in the 21st century: A review and a research agenda. Sci Total Environ. 2020;725:138177.

22. Sarihasan I, Dajnoki K, Oláh J, Al-Dalahmeh M. The importance of the leadership functions of a high-reliability health care organization in managing the COVID-19 pandemic in Turkey. Econ Soc. 2022;15(1):78-93.

23. Tanveer MI, Yusliza MY, Ngah AH, Khan MAK. Mapping the link between CSR and sustainability performance through GHRM practices in hotel industry. J Clean Prod. 2023;429:139258.

24. Pham NT, Tučková Z, Chiappetta Jabbour CJC. Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. Tourism Manag. 2019;72:386-99.

25. Kurucz A, Potháczky-Rácz I. The Role of Group Work and Group Learning in Corporate Culture in Hungarian SMEs. In: Loster T, Langhamrovâ J, Vrabcovâ, editors. Conference Proceedings, RELIK: 2018; 2018. p. 184-94.

26. Remsei S, Farkas-Kis M, Szigeti C, Bándy K. Circular concepts and values: Will reuse become fashionable? Chem Eng Trans. 2023;107:301-6.

27. Úbeda-García M, Marco-Lajara B, Zaragoza-Sáez PC, Manresa-Marhuenda E, Poveda-Pareja E. Green ambidexterity and environmental performance: The role of green human resources. Corp Soc Responsib Environ Manag. 2022;29(1):32-45.

28. Shrivastava P, Berger S. Sustainability principles: A review and directions. Organ Manag J. 2010;7(4):246-61.

29. Aftab J, Abid N, Cucari N, Savastano M. Green human resource management and environmental performance: The role of green innovation and environmental strategy in a developing country. Bus Strategy Environ. 2023;32(4):1782-98.

30. Renwick DWS, Jabbour CJC, Muller-Camen M, Redman T, Wilkinson A. Contemporary developments in Green (environmental) HRM scholarship. Int J Hum Resour Manag. 2016;27(2):114-28.

31. Csehné Papp I, Nagy C, Karácsony P. The role of human resource management in sustainable development. Strategy Booklets North Hung. 2021;18(3):103-12.

32. Kramar R. Beyond strategic human resource management: Is sustainable human resource management the next approach? Int J Human Res Manag. 2014;25(8):1069-89.

33. Jabbour CJC. Environmental training in organisations: From a literature review to a framework for future research. Resour Conserv Recycl. 2013;74:144-55.

34. Renwick DWS, Redman T, Maguire S. Green human resource management: A review and research agenda. Int J Manag Rev. 2013;15(1):1-14.

35. Dumont J, Shen J, Deng X. Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. Hum Res Manag J. 2017;56(4):613-27.

36. Renwick D, Redman T, Maguire S. Green HRM: A review, process model, and research agenda. University of Sheffield Management School; 2008.

37. Jabbour CJC, de Sousa Jabbour ABL. Green human resource management and green supply chain management: Linking two emerging agendas. J Cleane Prod. 2016;112:1824-33.

38. Yong JY, Yusliza M, Ramayah T, Chiappetta Jabbour CJC, Sehnem S, Mani V. Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management. Bus Strategy Environ. 2020;29(1):212-28.

39. Ye J, Zhang X, Zhou L, Wang D, Tian F. Psychological mechanism linking green human resource management to green behavior. Int J Manpower. 2022;43(3):844-61.

40. Zhang Y, Luo Y, Zhang X, Zhao J. How green human resource management can promote green employee behavior in China: A technology acceptance model perspective. Sustainability. 2019;11(19):5408.

41. Niazi UI, Nisar QA, Nasir N, Naz S, Haider S, Khan W. Green HRM, green innovation and environmental performance: The role of green transformational leadership and green corporate social responsibility. Environ Science Pollution Res Int. 2023;30(15):45353-68.

42. Nisar QA, Haider S, Ali F, Jamshed S, Ryu K, Gill SS. Green human resource management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior. J Clea Prod. 2021;311:127504.

43. Sathasivam K, Abu Bakar R, Che Hashim R. Embracing organisational environmental sustainability: Experiences in green human resource management. Bus Strategy Dev. 2021;4(2):123-35.

44. Bahuguna PC, Srivastava R, Tiwari S. Two-decade journey of green human resource management research: A bibliometric analysis. Benchmarking. 2023;30(2):585-602.

45. Mukherji A, Bhatnagar J. Conceptualizing and theorizing green human resource management: A narrative review. I J Manpower. 2022;43(3):862-88.

46. Kainzbauer A, Rungruang P, Hallinger P. How does research on sustainable human resource management contribute to corporate sustainability: A document co-citation analysis, 1982–2021. Sustainability. 2021;13(21):11745.

47. Pham NT, Hoang HT, Phan QPT. Green human resource management: A comprehensive review and future research agenda. Int J Manpower. 2020;41(7):845-78.

48. Fachada J, Rebelo T, Lourenço P, Dimas I, Martins H. Green human resource management: A bibliometric analysis. Admin Sci. 2022;12(3):95.

49. Alreahi M, Bujdosó Z, Kabil M, Akaak A, Benkó KF, Setioningtyas WP, *et al.* Green human resources management in the hotel industry: A systematic review. Sustainability. 2022;15(1):99.

50. Ahmad S. Green human resource management: Policies and practices. Cogent Bus Manag. 2015;2(1):1030817.

51. Ren S, Tang G, Jackson SE. Green human resource management research in emergence: A review and future directions. Asia Pacific J Manag. 2018;35(3):769-803.

52. Danese P, Manfè V, Romano P. A systematic literature review on recent lean research: State-of-the-art and future directions. Int J Manag Rev. 2018;20(2):579-605.

53. Podgorodnichenko N, Edgar F, McAndrew I. The role of HRM in developing sustainable organizations: Contemporary challenges and contradictions. Hum Resour Manag Rev. 2020;30(3):100685.

54. Sekhniashvili G. A review of wine tourism destination image studies from 2001 to 2020. Geo J Touris Geosites. 2021;37(3):757-67.

55. Szabó-Szentgróti E, Rámháp S, Kézai PK. Systematic review of cashierless stores (just walk out stores) revolutionizing the retail. Manag & Market. 2023;18(s1):427-48.

56. Islam T, Hussain D, Ahmed I, Sadiq M. Ethical leadership and environment specific discretionary behaviour: The mediating role of green human resource management and moderating role of individual green values. Canadian J Admin Sci. 2021;38(4):442-59.

57. Farrukh M, Ansari N, Raza A, Wu Y, Wang H. Fostering employee's pro-environmental behavior through green transformational leadership, green human resource management and environmental knowledge. Technol Forecast Soc Change. 2022;179:121643.

58. Singh SK, Giudice MD, Chierici R, Graziano D. Green innovation and environmental performance: The role of green transformational leadership and green human resource management. Technol Forecast Soc Change. 2020;150:119762.

59. Al Doghan MA, Abdelwahed NAA, Soomro BA, Ali Alayis MMH. Organizational environmental culture, environmental sustainability and performance: The mediating role of green HRM and green innovation. Sustainability. 2022;14(12):7510.

60. Shafaei A, Nejati M, Mohd Yusoff Y. Green human resource management: A two-study investigation of antecedents and outcomes. Int J Manpower. 2020;41(7):1041-60.

61. Zahrani AA. Team creativity and green human resource management practices' mediating roles in organizational sustainability. Sustainability. 2022;14(19):12827.

62. Sun X, El Askary A, Meo MS, Zafar NUA, Hussain B. Green transformational leadership and environmental performance in small and medium enterprises. Econ Res-Ekon Istraz. 2022;35(1):5273-91.

63. Yusliza MY, Norazmi NA, Jabbour CJC, Fernando Y, Fawehinmi O, Seles B. Top management commitment, corporate social responsibility and green human resource management: A Malaysian study. Benchmarking: An Int J. 2019;26(6):2051-78.

64. Yong JY, Yusliza MY, Ramayah T, Fawehinmi OO. Nexus between green intellectual capital and green human resource management. J Clean Prod. 2019;215:364-74.

65. Islam T, Khan MM, Ahmed I, Mahmood K. Promoting in-role and extra-role green behavior through ethical leadership: Mediating role of green HRM and moderating role of individual green values. Int J Manpower. 2020;42(6):1102-23.

66. Khatoon A, Khan NA, Bharadwaj S, Parvin F. Green human resource management: A transformational vision towards environmental sustainability. Int J Bus Environ. 2021;12(3):207-26.

67. Guerci M, Longoni A, Luzzini D. Translating stakeholder pressures into environmental performance: The mediating role of green HRM practices. Int J Human Resourc Manag. 2016;27(2):262-89.

68. Mohtar NS, Rajiani I. Conceptual model in using ability and opportunity as GHRM framework to determine environmental performance. Int Bus Manag. 2016;10(17):3840-46.

69. Haldorai K, Kim WG, Garcia RLF. Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. Tourism Manag. 2022;88:104431.

70. Kara E, Akbaba M, Yakut E, Çetinel MH, Pasli MM. The mediating effect of green human resources management on the relationship between organizational sustainability and innovative behavior: An application in Turkey. Sustainability. 2023;15(3):2068.

71. Garavan T, Ullah I, O'Brien F, Darcy C, Wisetsri W, Afshan G, *et al.* Employee perceptions of individual green HRM practices and voluntary green work behaviour: A signalling theory perspective. Asia Pac J Hum Resour. 2023;61(1):32-56.

72. Rubel MRB, Kee DMH, Rimi NN. The influence of green HRM practices on green service behaviors: The mediating effect of green knowledge sharing. E R. 2021;43(5):996-1015.

73. Wu J, Chen D, Bian Z, Shen T, Zhang W, Cai W. How does green training boost employee green creativity? A sequential mediation process model. Front Psychol. 2021;12:759548.

74. Chen Y, Yan X. The small and medium enterprises' green human resource management and green transformational leadership: A sustainable moderated-mediation practice. Corp Soc Responsib Environ Manag. 2022;29(5):1341-56.

75. Naz S, Jamshed S, Nisar QA, Nasir N. Green HRM, psychological green climate and pro-environmental behaviors: An efficacious drive towards environmental performance in China. Current Psychol. 2023;42(2):1346-61.

76. Saeed BB, Afsar B, Hafeez S, Khan I, Tahir M, Afridi MA. Promoting employee's proenvironmental behavior through green human resource management practices. Corp Soc Responsib Environ Manag. 2019;26(2):424-38.

77. Abualigah A, Koburtay T, Bourini I, Badar K, Gerged AM. Towards sustainable development in the hospitality sector: Does green human resource management stimulate green creativity? A moderated mediation model. Bus Strateg Environ. 2022;32(6):3217-32.

78. Farooq R, Zhang Z, Talwar S, Dhir A. Do green human resource management and self-efficacy facilitate green creativity? A study of luxury hotels and resorts. J Sustain Tourism. 2022;30(4):824-45.

79. Shoaib M, Abbas Z, Yousaf M, Zámečník R, Ahmed J, Saqib S. The role of GHRM practices towards organizational commitment: A mediation analysis of green human capital. Cogent Bus Manag. 2021;8(1):1870798.

80. Chen T, Wu Z. How to facilitate employees' green behavior? The joint role of green human resource management practice and green transformational leadership. Front Psychol. 2022;13:906869.

81. Fawehinmi O, Yusliza MY, Wan Kasim WZ, Mohamad Z, Sofian Abdul Halim MA. Exploring the interplay of green human resource management, employee green behavior, and personal moral norms. SAGE Open. 2020;10(4):215824402098229.

82. Khan K, Shams MS, Khan Q, Akbar S, Niazi MM. Relationship among green human resource management, green knowledge sharing, green commitment, and green Behavior: A moderated mediation model. Front Psychol. 2022;13:924492.

83. Pinzone M, Guerci M, Lettieri E, Redman T. Progressing in the change journey towards sustainability in healthcare: The role of 'Green' HRM. J Clean Prod. 2016;122:201-11.

84. Sabokro M, Masud MM, Kayedian A. The effect of green human resources management on corporate social responsibility, green psychological climate and employees' green behavior. J Clean Prod. 2021;313:127963.

85. Meng J, Murad M, Li C, Bakhtawar A, Ashraf SF. Green lifestyle: A tie between green human resource management practices and green organizational citizenship behavior. Sustainability. 2022;15(1):44.

86. Hameed Z, Naeem RM, Hassan M, Naeem M, Nazim M, Maqbool A. How GHRM is related to green creativity? A moderated mediation model of green transformational leadership and green perceived organizational support. Int J Manpower. 2022;43(3):595-613.

87. Muisyo PK, Su Q, Hashmi HBA, Ho TH, Julius MM. The role of green HRM in driving hotels' green creativity. Int J Contemp Hosp Manag. 2022;34(4):1331-52.

88. Pham NT, Chiappetta Jabbour CJC, Vo-Thanh T, Huynh TLD, Santos C. Greening hotels: Does motivating hotel employees promote in-role green performance? The role of culture. J Sustain Tourism. 2023;31(4):951-70.

89. Nawaz Khan A. Is green leadership associated with employees' green behavior? Role of green human resource management. J Environ Plan Manag. 2023;66(9):1962-82.

90. Zhu J, Tang W, Wang H, Chen Y. The influence of green human resource management on employee green behavior: A study on the mediating effect of environmental belief and green organizational identity. Sustainability. 2021;13(8):4544.

91. Darvishmotevali M, Altinay L. Green HRM, environmental awareness and green behaviors: The moderating role of servant leadership. Tour Manag. 2022;88:104401.

92. Darvishmotevali M, Altinay L. Toward pro-environmental performance in the hospitality industry: Empirical evidence on the mediating and interaction analysis. J Hosp Mark Manag. 2022;31(4):431-57.

93. Chen S, Jiang W, Li X, Gao H. Effect of employees' perceived green HRM on their workplace green behaviors in oil and mining industries: Based on cognitive-affective system theory. Int J Environ Res Public Health. 2021;18(8).

94. Aboramadan M, Karatepe OM. Green human resource management, perceived green organizational support and their effects on hotel employees' behavioral outcomes. Int J Contemporary Hos Manag. 2021;33(10):3199-222.

95. Rubel MRB, Kee DMH, Rimi NN. Green human resource management and supervisor pro-environmental behavior: The role of green work climate perceptions. J Clea Prod. 2021;313:127669.

96. Aboramadan M, Kundi YM, Becker A. Green human resource management in nonprofit organizations: Effects on employee green behavior and the role of perceived green organizational support. Pers Rev. 2021;51(7):1788-806.

97. Huo X, Azhar A, Rehman N, Majeed N. The role of green human resource management practices in driving green performance in the context of manufacturing SMEs. Sustainability. 2022;14(24):16776.

98. Yuan Y, Ren S, Tang G, Ji H, Cooke FL, Wang Z. How green human resource management affects employee voluntary workplace green behaviour: An integrated model. Hum Res Manag J. 2023;34(1):91-121.

99. Cheema S, Javed F. The effects of corporate social responsibility toward green human resource management: The mediating role of sustainable environment. Cogent Bus Manag. 2017;4(1):1310012.

100. Muisyo PK, Qin S. Enhancing the firm's green performance through green HRM: The moderating role of green innovation culture. J Clean Prod. 2021;289:125720.

101. Nisar QA, Haider S, Ali F, Gill SS, Waqas A. The Role of green HRM on environmental performance of hotels: Mediating effect of green self-efficacy & employee green behaviors. J Qual Assur Hosp Tour. 2024;25(1):85-118.

102. Roscoe S, Subramanian N, Jabbour CJC, Chong T. Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. Bus Strategy Environ. 2019;28(5):737-49.

103. Sathasivam K, Che Hashim R, Abu Bakar R. Automobile industry managers' views on their roles in environmental sustainability: A qualitative study. Manag Environ Qual: An Int J. 2021;32(5):844-62.

104. Yasin R, Huseynova A, Atif M. Green human resource management, a gateway to employer branding: Mediating role of corporate environmental sustainability and corporate social sustainability. Corp Soc Responsib Environ Manag. 2023;30(1):369-83.

105. Marrucci L, Daddi T, Iraldo F. The contribution of green human resource management to the circular economy and performance of environmental certified organisations. J Clean Prod. 2021;319:128859.

106. Opoku Mensah A, Afum E, Sam EA. Does GHRM spur business performance via green corporate citizenship, green corporate reputation and environmental performance? Manag Environ Q: Int J. 2021;32(4):681-99.

107. Zaid AA, Jaaron AAM, Talib Bon A. The impact of green human resource management and green supply chain management practices on sustainable performance: An empirical study. J Clean Prod. 2018;204:965-79.

108. Gilal FG, Ashraf Z, Gilal NG, Gilal RG, Channa NA. Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model. Corp Soc Responsib Environ Manag. 2019;26(6):1579-90.

109. Ren S, Tang G, Jackson SE. Effects of Green HRM and CEO ethical leadership on organizations' environmental performance. Int J Manpower. 2020;42(6):961-83.

110. Yafi E, Tehseen S, Haider SA. Impact of green training on environmental performance through mediating role of competencies and motivation. Sustainability. 2021;13(10):5624.

111. Al-Swidi AK, Gelaidan HM, Saleh RM. The joint impact of green human resource management, leadership and organizational culture on employees' green behaviour and organisational environmental performance. J Clean Prod. 2021;316:128112.

112. Irani F, Kiliç H, Adeshola I. Impact of green human resource management practices on the environmental performance of green hotels. J Hos Marketing & Manag. 2022;31(5):570-600.

113. Mohammed AA, Fisal MZ. The nexus between green human resource management processes and the sustainability of educational institutions: The mediating effect of strategic excellence. J Appl Res High Educ. 2023;15(4):947-65.

114. Rehman SU, Kraus S, Shah SA, Khanin D, Mahto RV. Analyzing the relationship between green innovation and environmental performance in large manufacturing firms. Technol Forecast Soc Change. 2021;163:120481.

115. Obeidat SM, Abdalla S, Al Bakri AAK. Integrating green human resource management and circular economy to enhance sustainable performance: An empirical study from the Qatari service sector. Employ Relat. 2023;45(2):535-63.

116. Khatoon A, Khan NA, Parvin F, Wahid MS, Jamal MT, Azhar S. Green HRM: Pathway towards environmental sustainability using AHP and FAHP in a nascent parsimony. Int J Manpower. 2022;43(3):805-26.

117. Ahmed U, Umrani WA, Yousaf A, Siddiqui MA, Pahi MH. Developing faithful stewardship for environment through green HRM. Int J Contemp Hosp Manag. 2016:3115-33.

118. Paillé P, Valéau P, Renwick DW. Leveraging green human resource practices to achieve environmental sustainability. J Clean Prod. 2020;260:121137.

119. Khaskhely MK, Qazi SW, Khan NR, Hashmi T, Chang AAR. Understanding the impact of green human resource management practices and dynamic sustainable capabilities on corporate sustainable performance: Evidence from the manufacturing sector. Front in Psychol. 2022;13:844488.

120. Kim YJ, Kim WG, Choi HM, Phetvaroon K. The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. Int J Hos Manag. 2019;76:83-93.

121. Nisar QA, Akbar A, Naz S, Haider SA, Poulova P, Hai MA. Greening the workforce: A strategic way to spur the environmental performance in the hotel industry. Front Environ Sci. 2022;10:10.

122. Umrani WA, Channa NA, Ahmed U, Syed J, Pahi MH, Ramayah T. The laws of attraction: Role of green human resources, culture and environmental performance in the hospitality sector. Int J Hosp Manag. 2022;103:103222.

123. Cabral C, Chiappetta Jabbour CJC. Understanding the human side of green hospitality management. Int J Hosp Manag. 2020;88:102389.

124. Muisyo PK, Su Q, Ho TH, Julius MM, Usmani MS. Implications of green HRM on the firm's green competitive advantage: The mediating role of enablers of green culture. J Manuf Technol Manag. 2021;33(2):308-33.

125. Mishra P. Green human resource management: A framework for sustainable organizational development in an emerging economy. Int J Organ Anal. 2017;25(5):762-88.

126. Gupta H. Assessing organizations performance on the basis of GHRM practices using BWM and Fuzzy TOPSIS. J Environ Manag. 2018;226:201-16.

127. Masri HA, Jaaron AAM. Assessing green human resources management practices in Palestinian manufacturing context: An empirical study. J Clean Prod. 2017;143:474-89.

128. Haddock-Millar J, Sanyal C, Müller-Camen M. Green human resource management: A comparative qualitative case study of a United States multinational corporation. Int J Hum Resourc Manag. 2016;27(2):192-211.

129. Bombiak E, Marciniuk-Kluska A. Green human resource management as a tool for the sustainable development of enterprises: Polish young company experience. Sustainability. 2018;10(6):1739.

130. Moraes S, Chiappetta Jabbour CJC, Battistelle RAG, Rodrigues JM, Renwick DWS, Foropon C, *et al.* When knowledge management matters: Interplay between green human resources and eco-efficiency in the financial service industry. J Knowl Manag. 2018;23(9):1691-707.

131. Jerónimo HM, Henriques PL, Lacerda T, da Silva FP, Vieira PR. Going green and sustainable: The influence of green HR practices on the organizational rationale for sustainability. J Bus Res. 2020;112:413-21.

132. Napathorn C. The implementation of green human resource management bundles across firms in pursuit of environmental sustainability goals. Sustain Devel. 2022;30(5):787-803.

133. Elshaer IA, Azazz AMS, Fayyad S. Green human resources and innovative performance in small- and medium-sized tourism enterprises: A mediation model using PLS-SEM data analysis. Mathematics. 2023;11(3):711.

134. Ogbeibu S, Emelifeonwu J, Senadjki A, Gaskin J, Kaivo-Oja J. Technological turbulence and greening of team creativity, product innovation, and human resource management: Implications for sustainability. J Clean Prod. 2020;244:118703.

135. Munawar S, Yousaf DHQ, Ahmed M, Rehman DS. Effects of green human resource management on green innovation through green human capital, environmental knowledge, and managerial environmental concern. J Hosp Tourism Manage. 2022;52:141-50.

136. Jaškevičiūtė V, Zsigmond T, Berke S, Berber N. Investigating the impact of person-organization fit on employee well-being in uncertain conditions: A study in three central European countries. E Relations. 2024;46(1):188-211.

137. Amrutha VN, Geetha SN. A systematic review on green human resource management: Implications for social sustainability. J Clean Prod. 2020;247:119131.