

From green HRM to sustainable organisations: an integrative analytical review of people sustainability linkages

Assem Abu Assedeh

Faculty of Economic and Business Sciences, University of Granada, Granada, Spain

Abstract

Purpose – This paper critically synthesises research on Green Human Resource Management (GHRM) and explains how people-management systems can create corporate sustainability value across the triple bottom line (environmental, social and economic).

Design/methodology/approach – This paper adopts an integrative review approach oriented towards analytical theory building. The authors conducted iterative searches across major scholarly databases (Scopus and Web of Science) and Google Scholar, supplemented by backward and forward snowballing from key review articles and highly cited empirical studies. The search focused on peer-reviewed work linking GHRM (and closely related constructs) to sustainability outcomes and was updated through December 2025. Studies were retained when they (a) examined GHRM practices/bundles or sustainability-oriented HR systems and (b) reported conceptual arguments or empirical evidence on employee mechanisms (e.g. climate, commitment and green behaviour) and/or organisational sustainability outcomes (environmental, social or economic).

Findings – GHRM contributes to sustainability by building green human capital and motivation, strengthening psychological green climate and enabling employee green behaviour and eco-initiatives. These mechanisms support eco-efficiency, compliance reliability and green innovation, thereby improving sustainability outcomes and stakeholder legitimacy. However, misaligned or symbolic GHRM can trigger greenwashing perceptions, cynicism and work intensification, which undermine social sustainability and erode long-run performance.

Research limitations/implications – As an integrative review, this paper does not meta-analyse effect sizes. Future studies should use multi-level, longitudinal and multi-source designs and explicitly test the credibility and justice mechanisms that distinguish substantive from symbolic implementation.

Practical implications – Managers should implement GHRM as a coherent system aligned with operational sustainability investments, fair and controllable metrics and participatory governance that protects employee well-being and voice.

Originality/value – The paper integrates major theoretical perspectives into an integrative explanatory logic linking HR practices to human mechanisms, sustainability capabilities and triple-bottom-line outcomes, while also highlighting a “dark side” pathway and safeguards that reduce greenwashing risk.

Keywords Green human resource management, Corporate sustainability, Triple bottom line, AMO theory, Natural-resource-based view, Green climate, Employee green behaviour, Green innovation, Greenwashing

Paper type Research paper



1. Introduction

Corporate sustainability has shifted from a discretionary corporate initiative to a strategic imperative. Organisations are increasingly evaluated against a triple-bottom-line logic that integrates environmental, social and economic performance (Elkington, 1997), and sustainability commitments are now closely tied to legitimacy and stakeholder expectations (Freeman, 1984; Hart, 1995).

Most existing Green Human Resource Management (GHRM) reviews (e.g. Renwick *et al.*, 2013 and subsequent syntheses) provide either broad overviews of the field or focused treatment of partial relationships, such as GHRM and employee green behaviour or environmental performance, without fully specifying the multi-level explanatory logic that connects HR practices to wider sustainability outcomes. In contrast, this review integrates micro-, meso- and macro-level evidence into an end-to-end causal logic linking GHRM bundles, human mechanisms, behaviours and eco-initiatives, organisational capabilities and triple-bottom-line outcomes. It also shows more explicitly when and why this logic may weaken or break down through credibility risks, including symbolic adoption and greenwashing perceptions.

A recurring implementation challenge is that sustainability strategies often fail at the point of execution: translating high-level ambitions into routines, capabilities and day-to-day behaviours. For this reason, the sustainability agenda is not only a technological or strategic issue; it is also a people-management issue that depends on how organisations recruit, develop, motivate and empower employees (Jackson *et al.*, 2011; Renwick *et al.*, 2013).

GHRM has therefore emerged as a core mechanism through which firms can embed environmental priorities into HR systems. Across sectors, studies link GHRM to employee eco-friendly behaviour and workplace green behaviour (Dumont *et al.*, 2017; Kim *et al.*, 2019; Paillé *et al.*, 2020), to the development of green culture and environmental performance (Roscoe *et al.*, 2019; Anwar *et al.*, 2020), and to broader operational and sustainability outcomes through supply-chain and circular-economy pathways (Longoni *et al.*, 2018; Yu *et al.*, 2020; Marrucci *et al.*, 2021).

Despite this growth, the evidence base remains fragmented. Firstly, the field spans multiple constructs (e.g. GHRM, sustainable HRM, green climate and ESG workforce practices) that are not always clearly distinguished. Secondly, findings are dispersed across micro-, meso- and macro-levels, with uneven attention to social sustainability outcomes, trade-offs and boundary conditions. Thirdly, many studies rely on cross-sectional and single-source designs, raising concerns about causal inference and common method bias (Podsakoff *et al.*, 2003). Finally, a small but important stream warns that symbolic GHRM can trigger greenwashing perceptions and employee cynicism, weakening performance benefits (Delmas and Burbano, 2011; Li *et al.*, 2022), while sustainability initiatives may unintentionally intensify work and harm employee well-being if safeguards are absent (Mariappanadar, 2014).

This integrative analytical review addresses these issues by synthesising scattered evidence into a coherent, multi-level explanatory framework. Specifically, it examines how AMO-aligned GHRM bundles shape employee motivation and green capabilities, how these mechanisms aggregate into organisational routines and dynamic capabilities, and how they translate into environmental, social and economic outcomes. It further identifies the conditions under which these relationships become weaker, more contingent or counterproductive. The paper concludes by advancing an integrative framework and a focused agenda for future research and practice.

Contributions of this review

Integrative causal chain: We consolidate fragmented micro–meso–macro evidence into a single end-to-end causal logic linking GHRM bundles to human mechanisms, employee green behaviours and eco-initiatives, sustainability capabilities and triple-bottom-line outcomes.

Conceptual precision and boundary conditions: We sharpen construct boundaries (GHRM vs sustainable HRM vs green climate), clarify key mechanisms and moderators and specify how context (e.g. institutional pressures, sector differences, SMEs and public services) shapes when and why GHRM translates into sustainability outcomes.

Critical insight and practical safeguards: Beyond the “positive” pathway, we theorise a credibility-risk (“dark side”) route (symbolic adoption → greenwashing perceptions → cynicism/work intensification) and translate the synthesis into actionable safeguards for implementation quality, governance and measurement that enable credible sustainability impact.

2. Construct clarity and review approach

2.1 Construct clarity

GHRM can be defined as the set of HR policies, practices and systems intentionally designed to build employees’ green abilities (e.g. training), motivation (e.g. appraisal and rewards) and opportunities (e.g. involvement) in support of environmental management and sustainability goals (Renwick *et al.*, 2013).

Two boundaries are especially important. Firstly, GHRM should be distinguished from the broader umbrella of sustainable HRM. Sustainable HRM typically places stronger emphasis on long-term people outcomes (e.g. well-being, employability and fairness) alongside organisational sustainability goals (Ehnert, 2009; Kramar, 2014). In practice, firms may combine GHRM with sustainable HRM safeguards to ensure that “doing green” does not worsen working conditions (Ehnert *et al.*, 2014; Mariappanadar, 2014).

Illustrative example (why the distinction matters): A firm may implement green performance targets and link them to rewards (a GHRM lever), yet if workloads and resources are not adjusted, employees may experience role overload or stress. In such cases, green goals can unintentionally undermine well-being unless they are complemented by sustainable HRM safeguards (e.g. realistic job design, psychosocial support, fairness in evaluation and voice mechanisms).

Secondly, GHRM (organisational practices) should be distinguished from employee green behaviour and green psychological climate (employee perceptions). Practices influence outcomes partly through sensemaking and climate perceptions, but these perceptions also depend on the credibility and consistency of HR signals, leadership behaviour and operational constraints (Bowen and Ostroff, 2004; Norton *et al.*, 2014).

A related design insight is that GHRM is more effective when treated as a coherent bundle rather than as an isolated practice. Bundle logic supports internal fit (e.g. training–appraisal–rewards–voice) and strengthens perceived consistency, thereby reducing ambiguity and the risk of symbolic compliance (Bowen and Ostroff, 2004; Paillé *et al.*, 2020).

Table 1 summarises the core constructs and conceptual distinctions used in this review.

2.2 Review approach and synthesis strategy

We adopted an integrative review approach aimed at theory building rather than exhaustive coverage. Following guidance on integrative reviews, we combined iterative keyword searches in major databases (Scopus and Web of Science) and Google Scholar with backward and forward snowballing from seminal reviews and highly cited empirical papers (Torraco, 2005; Snyder, 2019). The search was updated through December 2025. Search strings drew on combinations of “green human resource management”, “green HRM”, “sustainable HRM”, “green climate”, “employee green behaviour”, “environmental performance”, “green innovation”, “green supply chain” and “corporate sustainability”.

For greater transparency, the iterative database searches and backward and forward snowballing yielded approximately 180 records. After relevance screening and the removal of non-peer-reviewed and off-topic items, 53 peer-reviewed studies formed the core evidence

Table 1. Core constructs and conceptual distinctions

Construct	Working definition	Distinctive emphasis	Illustrative sources
Green HRM (GHRM)	HR practices that embed environmental priorities across recruitment, training, performance, rewards and involvement	Environmental focus within HR; often modelled via AMO bundles and HR system strength	Jackson et al. (2011) ; Renwick et al. (2013)
Corporate sustainability (TBL)	Long-term value creation across environmental, social and economic performance	Multi-objective performance and legitimacy; includes trade-offs and governance	Elkington (1997) ; Hart (1995)
Sustainable HRM	HRM that sustains human and organisational resources while balancing stakeholder outcomes	Explicit well-being, fairness and ethical outcomes alongside performance	Ehnert (2009) ; Kramar (2014) ; Mariappanadar (2014)
Psychological green climate	Shared perceptions that environmental responsibility is supported and expected	Proximal mechanism translating HR signals into behaviour	Dumont et al. (2017) ; Norton et al. (2014)

base for the integrative synthesis. This review was designed as an integrative, concept-centric synthesis rather than as a full systematic review or meta-analysis. Accordingly, the aim was to develop explanatory insight and theoretical integration rather than to achieve exhaustive coverage or estimate aggregate effect sizes.

Studies were included when they (a) examined HRM practices explicitly framed as green or environmentally oriented and (b) linked these practices to employee-level green behaviours, organisational environmental management, or broader sustainability outcomes. We prioritised peer-reviewed journal articles in English, while also incorporating foundational conceptual work used to anchor key mechanisms (e.g. AMO, natural-resource-based view (NRBV), stakeholder and institutional perspectives). To support interpretive consistency, the included studies were coded conceptually by construct focus, level of analysis, main mechanisms, focal outcomes and contextual conditions. Consistent with the integrative logic, the synthesis is concept-centric: evidence is organised around mechanisms (climate, identity and exchange), capabilities (eco-initiatives, green innovation and circular-economy routines) and boundary conditions (HR system strength and institutional context). Where relevant, we also note common validity threats (e.g. common method bias) to guide more rigorous future research designs ([Podsakoff et al., 2003](#)).

Because the review is integrative rather than fully systematic, no formal inter-rater reliability procedure or stand-alone quality appraisal tool was applied. Instead, interpretive consistency was supported through concept-based coding across construct focus, level of analysis, mechanisms, outcomes and contextual conditions, while evidentiary judgements were informed by recurring patterns in findings, study design characteristics and commonly noted validity limitations. Accordingly, classifications such as robust, mixed or under-tested are intended as interpretive assessments of consistency and evidential strength rather than as meta-analytic estimates.

3. Theoretical mechanisms linking green human resource management to sustainability

Research on GHRM draws on multiple theoretical perspectives. Integrating these lenses helps to clarify why GHRM can influence sustainability outcomes and why such effects vary across contexts.

AMO theory argues that desired performance requires employees who can do (ability), will do (motivation) and are enabled to do (opportunity) the required behaviours (Appelbaum *et al.*, 2000). Applied to GHRM, green recruitment and selection enhance ability and motivation by attracting candidates with relevant competencies and values. Green training and development build green knowledge and self-efficacy. Green performance management and rewards strengthen motivation by making sustainability expectations salient and accountable. Empowerment, participation and voice create opportunities for eco-initiatives. AMO also predicts weaker outcomes when one lever is missing; for example, incentives without ability can encourage superficial compliance, while ability without opportunity can produce frustration.

The natural-resource-based view (NRBV) explains sustainability value creation through capabilities in pollution prevention, product stewardship and sustainable development (Hart, 1995; Hart and Dowell, 2011). GHRM contributes to these capabilities by developing green human capital and embedding routines for continuous improvement and innovation. In this sense, HR functions as a microfoundation of sustainability capabilities by shaping the skills, mindsets and coordination patterns that enable eco-efficiency and green innovation.

Stakeholder theory emphasises that legitimacy and performance depend on creating value for multiple stakeholder groups, including employees (Freeman, 1984). Social exchange theory suggests that employees reciprocate perceived organisational support with positive attitudes and discretionary behaviours (Blau, 1964; Cropanzano and Mitchell, 2005). Social identity theory further suggests that sustainability can become part of organisational identity, thereby strengthening identification and citizenship behaviour (Ashforth and Mael, 1989; Tajfel and Turner, 1986). Together, these behavioural mechanisms help to explain why employees may go beyond compliance and contribute proactive “green citizenship” behaviour (Boiral, 2009).

Finally, institutional theory highlights that organisations adopt practices under coercive, normative and mimetic pressures (DiMaggio and Powell, 1983). Such pressures can encourage symbolic adoption, whereby policies exist but core routines do not change (Meyer and Rowan, 1977). In sustainability contexts, this decoupling may be perceived as greenwashing, namely misleading claims or exaggerated commitment, which can damage trust and reduce discretionary effort (Delmas and Burbano, 2011). Leadership is a key translation mechanism because leaders allocate resources, role-model behaviours and shape psychological safety, thereby amplifying or weakening HR signals (Robertson and Barling, 2013).

4. Evidence synthesis: how green human resource management produces TBL sustainability

Across studies, GHRM is typically operationalised as a bundle of practices covering recruitment and selection, training and development, performance management, rewards and recognition and employee involvement. The evidence increasingly supports a multi-stage causal logic rather than simple direct effects.

4.1 Building human mechanisms

GHRM develops green human capital (knowledge and skills), strengthens pro-environmental motivation and increases green self-efficacy. Training and development are particularly influential because they translate sustainability priorities into role-specific capabilities and problem-solving routines. Recruitment and selection contribute by strengthening person–organisation alignment and reducing reliance on monitoring. However, sustainability-oriented hiring can also create

ethical tension if “green fit” is defined vaguely; structured criteria and transparent assessment are therefore needed to protect inclusion.

4.2 *Shaping psychological context*

GHRM shapes psychological green climate, namely the shared perception that sustainability is supported and expected within the organisation (Dumont *et al.*, 2017; Norton *et al.*, 2014). Climate emerges when employees observe consistent HR signals and leadership behaviours. A strong green climate clarifies priorities, reduces ambiguity and turns sustainability from a periodic campaign into an embedded social norm.

4.3 *Enabling behaviour and eco-initiatives*

Human mechanisms and green climate, in turn, help to predict both in-role green behaviour (e.g. adherence to procedures) and discretionary behaviour, including organisational citizenship behaviours for the environment (Boiral, 2009). Opportunity-enhancing practices such as empowerment, green teams, suggestion systems and voice are especially important because many sustainability improvements are local, process-embedded and difficult to mandate from the top down. Classic work on employee eco-initiatives shows that supervisory support and enabling policies foster proactive environmental action (Ramus and Steger, 2000; Ramus, 2002). These insights remain highly relevant as many firms move beyond compliance-driven sustainability towards continuous improvement and innovation.

4.4 *Building sustainability capabilities*

Through improved behaviours and eco-initiatives, organisations build capabilities such as eco-efficiency (lower waste and energy intensity), compliance reliability (fewer non-conformities and incidents) and green innovation (new processes, products and business models). These capabilities connect GHRM to environmental and economic outcomes, consistent with NRBV logic (Hart, 1995; Hart and Dowell, 2011). Importantly, however, such capabilities depend on cross-functional coordination (HR, operations, procurement and R&D) and on resource allocation. Where operational investment is absent, HR practices may raise awareness without producing measurable performance change.

4.5 *Delivering triple-bottom-line outcomes*

Environmental outcomes include emissions reduction, pollution prevention and resource efficiency. Economic outcomes may include cost savings, productivity gains and innovation-related growth. Social outcomes, although less frequently examined, are central to the triple bottom line and include employee well-being, safety, fairness and inclusion. Sustainability commitments can strengthen meaning and engagement, while participatory programmes can increase psychological safety for speaking up about waste, risk and improvement opportunities. However, social outcomes depend heavily on governance. When green targets are implemented without sufficient time, tools and job redesign, employees may experience work intensification and moral burden, thereby reducing well-being and weakening the social pillar of sustainability (Ehnert, 2009; Mariappanadar, 2014).

Measurement implications follow from this synthesis. Researchers and managers should distinguish between (i) formal HR policy content, (ii) implementation quality (how consistently practices are enacted) and (iii) employee perceptions (climate and credibility). Triangulating data sources, such as HR records, line-manager assessments, employee surveys and operational metrics, can reduce common-method bias and help to diagnose where the HR-to-sustainability chain is weakened.

Context also matters. Most studies have been conducted in manufacturing and private-sector settings, whereas fewer examine services, the public sector or small firms. Recent empirical work has begun to extend the evidence base to public-sector hospitals ([Khan and Muktar, 2024](#)), SMEs ([Sarfo et al., 2024](#)) and hospitality settings ([Alreahi et al., 2023](#)), yet these contexts remain underrepresented relative to manufacturing. Because opportunities for green behaviour vary across jobs and industries, future work should specify how job design, technological infrastructure and sectoral constraints condition the GHRM–outcome relationship.

Operationalising triple-bottom-line outcomes (illustrative indicators): Environmental outcomes may include emissions or energy-intensity reductions, waste diversion rates, compliance incidents and eco-efficiency improvements. Social outcomes may include employee well-being and safety indicators (e.g. engagement, burnout, psychological safety and injury rates), fairness and inclusion measures and community or social impact metrics. Economic outcomes may include productivity and cost savings from eco-efficiency, innovation outputs (e.g. green product or process innovation), risk reduction and longer-term financial performance (e.g. ROI, profitability and resilience). These indicators can guide future empirical tests of the proposed framework.

To strengthen the critical synthesis, we distinguish three evidence states across the main linkages summarised in [Table 2](#). Firstly, *robust convergence* is most evident in the relationship between GHRM bundles and employee pro-environmental behaviour, green organisational citizenship behaviour and related attitudinal states (e.g. green engagement). Downstream effects on environmental performance are observed more consistently when implementation quality and climate or HR system strength are high. Secondly, *mixed or contingent evidence* is more apparent for social and economic outcomes, which are more context-dependent and often hinge on boundary conditions such as leadership, perceived authenticity and sectoral constraints. Some studies also report non-green or paradoxical outcomes alongside green benefits ([Tandon et al., 2023](#)). Thirdly, *missing or under-tested evidence* remains visible in multi-level and longitudinal tests linking GHRM to harder triple-bottom-line indicators,

Table 2. Evidence map of GHRM–sustainability linkages (illustrative)

Relationship focus	Common mediators/capabilities	Typical outcomes	Illustrative studies
Employee green behaviour	Green psychological climate; green identity; perceived organisational support for the environment; commitment	Workplace green behaviour; eco-friendly behaviour	Dumont et al. (2017) ; Kim et al. (2019) ; Paillé et al. (2020)
Environmental performance	Green culture; eco-initiatives; EMS implementation; HR system strength	Environmental performance; compliance reliability	Roscoe et al. (2019) ; Anwar et al. (2020) ; Wagner (2013)
Green innovation and learning	Green intellectual capital; green creativity; learning routines	Green innovation; process improvements	Yong et al. (2019) ; Ramus (2002)
Supply chain and operations	Cross-functional deployment; integration with GSCM; operational capabilities	Sustainable/operational performance; eco-efficiency	Longoni et al. (2018) ; Yu et al. (2020) ; Jabbour and de Sousa Jabbour (2016)
Circular economy and certification	Circular-economy routines; environmental certification; reputation mechanisms	Circular-economy outcomes; environmental and economic performance	Marrucci et al. (2021) ; Agyabeng-Mensah et al. (2020)
Social sustainability and well-being	Fairness and voice safeguards; workload control; credibility signals	Employee well-being; cynicism/engagement (risk pathway)	Mariappanadar (2014) ; Li et al. (2022)

especially social sustainability and credible economic outcomes, thereby reinforcing the need for stronger designs and greater measurement rigour.

This classification is interpretive rather than meta-analytic; it is intended to organise the current evidence base, not to estimate average effect sizes.

Table 2 provides a concise evidence map linking the dominant GHRM relationship streams to their most frequently theorised mediators, capabilities and outcomes, while also highlighting representative studies that can help position future empirical tests.

5. Credibility risks and the “dark side” of green human resource management

Although the literature often highlights positive outcomes, GHRM can backfire when credibility is low. Institutional pressures can create incentives for visible adoption of green programmes without corresponding operational change (DiMaggio and Powell, 1983). Decoupling between policies and routines (Meyer and Rowan, 1977) may be perceived by employees as greenwashing (Delmas and Burbano, 2011).

Three negative pathways are particularly relevant. Firstly, greenwashing perceptions reduce trust and weaken social exchange and identification mechanisms, lowering discretionary green behaviour and harming internal legitimacy. Secondly, poorly designed green performance metrics can be perceived as unjust when outcomes are uncontrollable, creating resistance and gaming. Thirdly, work intensification can occur when sustainability tasks are added without job redesign, time allocation and psychological safety, undermining employee well-being.

Another risk is moral licensing and “tokenism”: small symbolic actions can be used to justify larger unsustainable routines, which weakens learning. At the employee level, mandated “green enthusiasm” can produce emotional dissonance, especially if employees feel they are asked to compensate for structural problems. These dynamics highlight why the social pillar of sustainability must be treated as a design constraint, not an afterthought.

Safeguards follow directly from these risks. Credible GHRM requires (i) alignment between HR signals and operational investments, (ii) fair and controllable metrics (often team-based), (iii) participatory governance that gives employees voice and resources for improvement and (iv) transparent sustainability reporting that matches claims to verifiable progress. From a governance perspective, internal credibility should be treated as a prerequisite for external credibility: employee experiences are an early indicator of whether sustainability commitments are substantive or symbolic.

Recent evidence also sharpens the “dark side” argument: when employees infer symbolic adoption or perceive greenwashing, GHRM may erode trust and weaken identification, reducing engagement with green initiatives (Keskin *et al.*, 2025; Cesário *et al.*, 2025). Moreover, paradoxical effects can emerge across employee segments – GHRM may elicit positive emotions and advocacy among high-green-value employees but provoke negative emotions and counterproductive behaviours among low-green-value employees (Wang *et al.*, 2025). These patterns imply that credibility is not only an organisational-level governance issue but also a perceptual and values-based mechanism that conditions whether GHRM is internalised as capability-building or dismissed as impression management.

Accordingly, we treat implementation quality, transparency and alignment with sustainable HRM safeguards as necessary conditions for avoiding work intensification and wellbeing trade-offs while sustaining long-run performance effects (Din *et al.*, 2025; Gyensare *et al.*, 2024). Evidence from service and hospitality contexts further shows both the portability and the boundary conditions of GHRM effects outside manufacturing (Tabrizi *et al.*, 2023; Tandon *et al.*, 2023; Usman *et al.*, 2024), underscoring the need to theorise sectoral constraints and stakeholder scrutiny explicitly.

6. Integrative framework, propositions and future research

Figure 1 presents an integrative framework linking GHRM to corporate sustainability.

Coherent GHRM bundles and HR system strength shape human mechanisms (green human capital, motivation and self-efficacy) and psychological context (green climate and identification). These mechanisms enable green behaviours and eco-initiatives that build sustainability capabilities (eco-efficiency, compliance reliability and green innovation), thereby improving triple-bottom-line outcomes and stakeholder legitimacy. Key moderators include leadership, institutional pressure, resource availability and fairness climate. The framework also highlights a risk pathway through which symbolic GHRM can increase greenwashing perceptions, leading to cynicism and work intensification. Although the framework is presented as an integrative causal logic, the relationships may also be recursive and context-dependent rather than strictly linear.

Based on the synthesis, several propositions merit testing:

- P1. AMO-complete GHRM bundles (ability, motivation and opportunity) have stronger effects on sustainability outcomes than partial implementations (Appelbaum et al., 2000).
- P2. HR system strength (distinctiveness, consistency and consensus) amplifies the effects of GHRM on green climate and behaviour (Bowen and Ostroff, 2004).
- P3. Green climate and identification mediate the relationship between GHRM and discretionary green behaviour (Ashforth and Mael, 1989; Dumont et al., 2017).

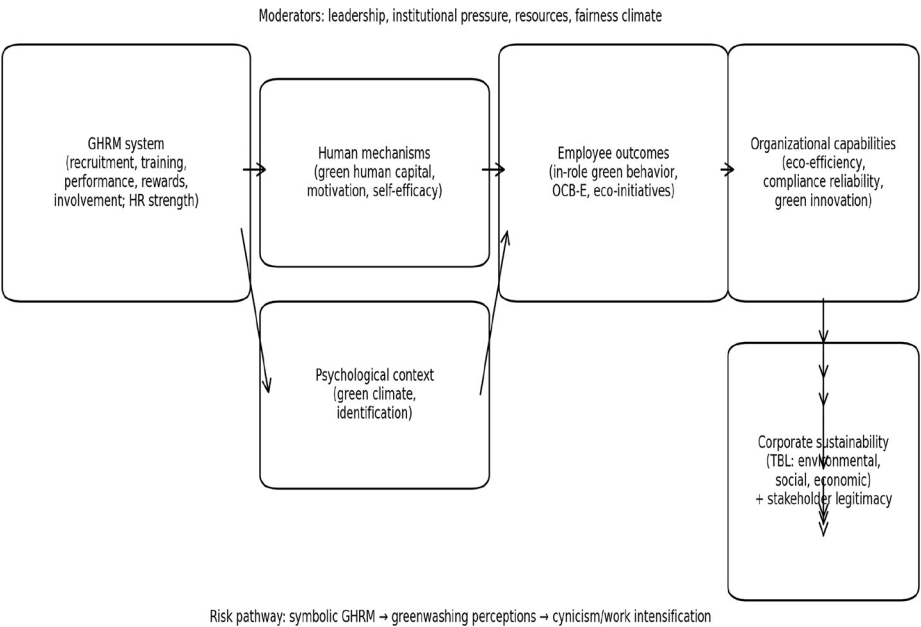


Figure 1. Integrative framework linking GHRM to corporate sustainability (TBL)

Note: Boxes represent mechanisms and capabilities; arrows indicate the theorised causal chain. Moderators and a risk pathway (symbolic adoption → greenwashing perceptions) are highlighted

- P4. Eco-initiatives mediate the relationship between GHRM and eco-efficiency and green innovation, thereby supporting economic outcomes over time (Hart and Dowell, 2011; Ramus, 2002).
- P5. Sustainable HRM safeguards (well-being and fairness practices) moderate the relationship between GHRM and social sustainability, thereby reducing work intensification (Ehnert, 2009; Mariappanadar, 2014).
- P6. Symbolic GHRM increases greenwashing perceptions, which in turn weaken trust and diminish sustainability performance (Delmas and Burbano, 2011; Meyer and Rowan, 1977).

Methodologically, future work should move beyond cross-sectional, single-source designs. Multi-level models are needed to capture unit-level climate and leadership effects, while longitudinal designs can test time-lagged capability development. Where feasible, quasi-experimental roll-outs of GHRM initiatives can strengthen causal inference. In addition, researchers should report measurement decisions transparently (e.g. whether “GHRM” is measured as policy content, implementation quality or employee perception), because these choices strongly affect inference.

Contextual boundary conditions also deserve greater attention. Institutional pressure may strengthen adoption but may also increase the risk of decoupling. Resource scarcity can limit opportunities for eco-initiatives, while public-sector constraints may alter incentives and accountability structures. Cross-country studies can test how regulation, culture and labour institutions influence the credibility pathway.

A promising direction is to integrate HR data with sustainability analytics. Researchers can combine HRIS indicators (training hours, appraisal content and incentive schemes) with ESG and operations data (energy intensity, waste and safety incidents), as well as employee-level outcomes (green behaviour, trust and well-being). Such data integration would help distinguish symbolic adoption from substantive capability building and would support stronger tests of the proposed causal chain.

Note on Figure 1 (conceptual precision): In-role green behaviour refers to task-related compliance and efficiency behaviours expected within job roles; discretionary green behaviour refers to voluntary extra-role actions (green OCB); and eco-initiatives refer to proactive, improvement-oriented actions that generate new ideas or process changes (often collective) that can accumulate into sustainability capabilities.

Table 3 summarises a concise agenda aligned with these priorities and emphasises that triple-bottom-line outcomes should be modelled simultaneously to reveal trade-offs rather than assume synergies.

7. Practical implications for implementing credible GHRM

This review suggests several design principles for managers seeking faster, more reliable sustainability execution through people systems.

Start with operational reality and job design. HR practices cannot compensate for processes that prevent sustainable action. Identify where employees can influence emissions, waste, safety and supplier practices and redesign workflows accordingly. Align HR initiatives with operational investments and with clear ownership of sustainability processes.

Implement AMO-complete bundles. Build ability through role-specific training and problem-solving routines; strengthen motivation through meaningful goals and balanced rewards; and create opportunities through empowerment, green teams and protected time for

Table 3. Future research agenda for the GHRM–corporate sustainability field

Priority	Why it matters	Illustrative questions/designs
Implementation quality and HR system strength	Distinguishes substantive from symbolic GHRM and reduces common-method bias	How do distinctiveness, consistency and consensus shape climate and behaviour? Use HR records, line-manager data and employee surveys; exploit staged roll-outs
Triple-bottom-line outcomes and trade-offs	Prevents ‘environment-only’ conclusions and exposes social costs or benefits	When do environmental gains coincide with improved (or reduced) well-being and fairness? Model environmental, social and economic outcomes together
Multi-level mechanisms and time lags	Climate and leadership operate at unit level; capability effects are delayed	How does unit-level green climate emerge and persist? Use multilevel longitudinal designs linking GHRM to eco-initiatives and objective performance metrics
Credibility, justice and greenwashing perceptions	Explains backfiring and legitimacy loss; Central to employee engagement	Which safeguards reduce greenwashing perceptions? Test transparency, participation and fair metrics as moderators; track cynicism and trust over time

improvement. Partial bundles tend to create “compliance theatre” rather than genuine capability.

Strengthen implementation through line managers. Line managers translate HR policies into daily practice and shape climate and psychological safety. Train and support managers to coach, allocate resources and resolve trade-offs between productivity and sustainability. Use governance routines (e.g. regular sustainability huddles and feedback loops) to maintain consistency across units.

Use fair and controllable metrics. Prefer team-based targets where outcomes depend on interdependence or infrastructure. Combine outcome indicators with behavioural and learning indicators to reduce gaming and support capability development. Protect employee well-being by planning workload and avoiding “hidden” sustainability labour.

Finally, manage credibility. Align external sustainability claims with internal realities, involve employees in diagnosing gaps and communicate progress transparently. Employee perceptions can function as an early warning system for greenwashing risk and as a diagnostic indicator of where resources or authority are missing.

8. Conclusion

GHRM can be a powerful mechanism for translating sustainability aspirations into day-to-day behaviour and organisational capability. This review integrates fragmented evidence into a causal logic linking coherent HR bundles to human mechanisms, green climate and identification, employee green behaviour and eco-initiatives, and, ultimately, eco-efficiency, innovation and triple-bottom-line outcomes. At the same time, symbolic or unfair implementation can create a dark side – greenwashing perceptions, cynicism and work intensification – that undermines the social pillar of sustainability and long-run performance. Future research should adopt multi-level and longitudinal designs, use stronger measurement triangulation and treat credibility and justice as central boundary conditions for understanding when GHRM genuinely delivers corporate sustainability.

This review also has limitations. Because it is integrative, it maps mechanisms and boundary conditions rather than estimating average effect sizes. In addition, the current

evidence base remains uneven across sectors and regions: manufacturing and Asian contexts are common, whereas public services, SMEs and Global South settings remain less represented. For example, sector-specific studies have examined public-sector hospitals (Khan and Muktar, 2024), SMEs (Sarfo *et al.*, 2024) and hospitality organisations (Alreahi *et al.*, 2023), yet comparable evidence from other public-service and service contexts remains relatively sparse. Future studies should therefore specify contextual constraints (job design, technology, regulation and labour institutions) and use triangulated measurement (policy content, implementation quality, perceptions and objective performance indicators) to strengthen inference and comparability.

Overall, the paper's added value lies in integrating fragmented GHRM findings into an end-to-end explanatory logic that specifies mechanisms and boundary conditions, translates the triple bottom line into measurable indicators, and highlights credibility risks and safeguards – thereby moving the field beyond descriptive lists towards more testable, multi-level theorising.

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Corresponding author

Assem Abu Assedeh can be contacted at: asemassedeh@hotmail.com