

Cultivating Green Behaviour at Work: A Concise Review of Green Human Resource Management and Employee Pro-Environmental Conduct

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Abstract

Green human resource management (GHRM) that initiates employee-oriented green behavior is an important mechanism by which organisations translate their environmental vision into daily operations. This article briefly reviews recent empirical and theoretical research linking bundles of GHRM practices to individuals' in-role and discretionary pro-environmental behaviors, green creativity and to firms' environmental performance. Using the ability-motivation-opportunity framework, social exchange theory and social identity theory, this review organizes the literature around green practices, mediating mechanisms and boundary conditions. Although positive associations are found throughout the literature, studies are limited to hospitality and manufacturing and use cross-sectional surveys more often than not, limiting the potential for causal inference. The review identifies an integrative, multilevel framework and underexplored tensions (e.g., green work intensification and greenwashing). It concludes with recommendations for creating coherent green practice systems and calls for more methodologically rigorous, contextually grounded research across sectors, firms, and national contexts.

Keywords: *green human resource management; pro-environmental behaviour; organisational citizenship behaviour for the environment; ability-motivation-opportunity; environmental performance*

1. Introduction

Now, climate goals are embedded within companies' core strategy, which only works if their employees follow suit. Green human resource management (GHRM) describes the links between recruitment, training, appraisal, reward and involvement systems and the environmental strategy of the organization. GHRM has been studied as the human mechanism of corporate greening (Roscoe et al., 2019). One simple premise that runs throughout this book is that companies that integrate environmental concerns into their people management systems perform better environment-wise than companies that do not (Singh et al., 2019). Evidence of this is compelling in both manufacturing and services contexts but the nature and magnitude of this relationship continues to be contested (Aftab et al., 2022).

This review aims, first, to bring clarity to the constructs involved: GHRM practice bundles on one side, employee green behavior and environmental performance on the other. Second, it seeks to consolidate findings on how practices relate to behaviors, with a particular focus on mediators and moderators, which specify the boundary conditions of the practice-behavior link. Third, it integrates these strands into a multilevel framework and identifies research gaps. It does not attempt an exhaustive overview of findings. Rather, it compares findings, reflecting on the tension between optimism in the field and methodological constraints, and taking seriously the non-green consequences a maturing literature has begun to document (Tandon et al., 2023).

2. Conceptual and theoretical background

The GHRM concepts and practices comprise a bundle of interrelated HRM activities: green recruitment and selection; green training and development; green performance appraisal; green rewards; and green

involvement (Mousa & Othman, 2019). As indicated above, employee green behavior is the most proximal outcome of interest. These are conventionally divided into in-role behavior, environmentally specific work requirements of the job, and voluntary behavior captured by the construct organizational citizenship behavior for the environment (OCBE) (Pham et al., 2019). There is a third more generative outcome, green creativity, such as novel ideas on how to lessen environmental harm, which is linked to leadership and knowledge conditions rather than compliance (Singh et al., 2019). This matters analytically, as practices which are effective for in-role compliance might have limited or negative effects on discretionary or creative behavior, and conflating the three outcomes arguably flattered the reach of GHRM.

Three theories are common, with the ability-motivation-opportunity (AMO) model treating practices as building environmental competence, motivating green effort and opening opportunities to act, which maps onto the practice-bundle framework (Ahmad et al., 2023). The reciprocity stems from social exchange theory (SET): the perceived green organizational support that green practices elicit from employees (green practices signal the organisation's preference for the environment and its support for employees' contributions) leads employees to reciprocate in their greening efforts (Gyensare et al., 2023). Self-definitional explanations have arisen in the framework of social identity theory. These accounts are complementary. Green practices can promote a green organizational identity, such that behaving sustainably is an expression of who employees are at work rather than a demand imposed from above (Al-Swidi et al., 2021). The best studies interweave these accounts.

3. Green HRM practices, mechanisms and employee green behaviour

Green recruitment and selection, for example, will ensure that candidates will be hired who already have environmental values and concerns and that can therefore contribute to the organization's competencies on sustainability, even before receiving specific training, which will later help develop their knowledge and skills for their in-role tasks. Environmental knowledge has repeatedly been shown to be a proximal driver of pro-environmental behavior (Farrukh et al., 2022). Appraisal and reward systems can provide direction and motivation to perform green behaviors by making the tasks salient and critical, and by transforming diffuse positive affect into targeted behaviors. Evidence is more equivocal for rewards than training. Green involvement and green empowerment finally provide the discretion that voluntary behavior presupposes. Hotel studies show that participative green practices mostly influence citizenship behavior (Pham et al., 2019). Table 1 provides an overview of the bundles with one AMO dimension and a respective green behavior outcome.

Table 1. Green HRM practice bundles and their intended outcomes.

Green HRM practice bundle	Example practices	Targeted AMO component	Intended green outcome
Green recruitment & selection	Green employer branding; values screening	Ability	Environmentally capable workforce
Green training & development	Skills training; awareness workshops	Ability	Green knowledge and competence
Green performance appraisal	Green targets; environmental metrics	Motivation	Goal-directed green effort
Green rewards & compensation	Green bonuses; recognition	Motivation	Sustained green motivation

Green HRM practice bundle	Example practices	Targeted AMO component	Intended green outcome
Green involvement & empowerment	Green teams; suggestion schemes	Opportunity	Voluntary green behaviour (OCBE)

In-role behaviors reward compliance but discretionary behaviors depend on climate and identity. While work around supplies-values fit suggests (Li et al., 2023) that supervisors' practices and behaviors can stimulate in-role behaviors, others must rely on climate and identity. GHRM behavioral outcomes depend on environmental awareness. This translates GHRM into behavior (especially where leadership encourages it). Studies at the firm level have traced a longer chain, showing how green practices raise environmental performance through intervening capabilities. Green innovation is the most researched mediator between practices and performance in emerging-economy services and manufacturers (Rana & Arya, 2023; Aftab et al., 2022). Green intellectual capital is also a mediator, with the human, structural and relational stocks of capital helping hotels and factories translate practices into value-added outcomes (Nisar et al., 2021; Rehman et al., 2020). That two very different capabilities (one about generating new solutions, another about amassed environmental know-how) can each carry the effect suggests the practice-performance link is over-determined, and any single mediator should not be read as the mechanism.

At the top level, senior managers' green commitment provides legitimacy and resources for GHRM to operate. This has further been shown to lead to hotel environmental performance through green practices (Haldorai et al., 2021). Additionally, management commitment moderates the relationship between green innovation with firm and environmental performance (Ahmed et al., 2023). Other empirical studies have found that employee performance and environmental performance jointly mediate the relationship between green innovation and organizational sustainability (Amjad et al., 2021), and that responsible and transformational leadership and green innovation improve sustainable business performance through pro-environmental behavior (Liu et al., 2023). Although the evidence for the practice-behavior-performance relationship is generally supportive, the reliance on self-reported, single-source data may be partly responsible for the largely consistent findings through shared method variance.

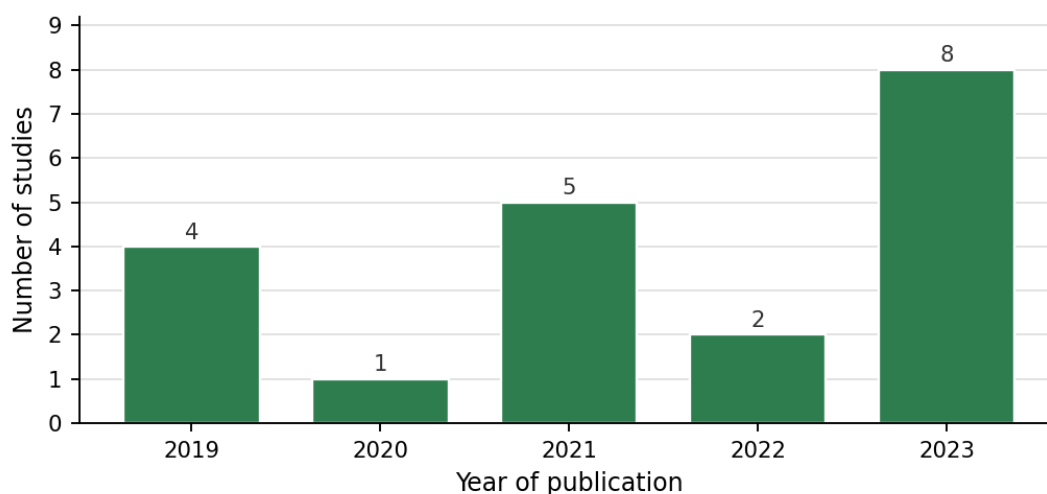


Figure 1. Distribution of the reviewed studies by year of publication (N = 20).

Figure 1 shows the distribution of the reviewed studies by publication year, and makes plain how recent and how concentrated this evidence base has become.

4. Discussion: an integrative framework

Based on the studies, we propose a multilevel model in which at the organizational level GHRM configures ability, motivation and opportunity. At the individual level, psychological and identity mechanisms take the inputs into behavior. Aggregated organization behavior plus innovation and intellectual capital are antecedents of environmental performance. Figure 2 integrates the practice bundle, mediators and moderators, and behaviors and performance outcomes in one framework grounded in the AMO model, as shown in Figure 2.

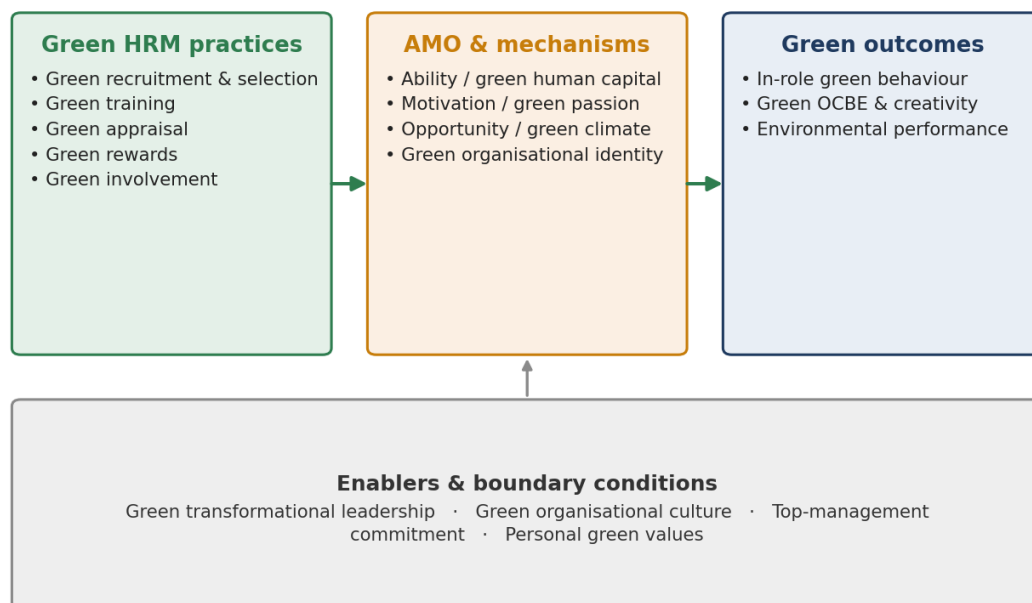


Figure 2. An ability–motivation–opportunity (AMO) framework linking green HRM to green outcomes.

The mediating and moderating variables are of particular interest, since they specify when the model holds. The green psychological climate and green organizational identity transform practices into shared meaning, while the harmonious environmental passion and green commitment or knowledge sharing transform motivation into sustained action (Ahmad et al., 2023). For the boundary level, green transformational leadership, a green organizational culture and personal green values explain the strength of the bite of practices (Farrukh et al., 2022; Roscoe et al., 2019). These mechanisms are presented in Table 2 and the role they play in the practices-behavior link is explained.

Table 2. Mediators and moderators linking green HRM to employee green behaviour.

Mechanism type	Variable	Role in the link
Mediator	Green psychological climate	Shared perception enabling behaviour
Mediator	Green organisational identity	Aligns self with green goals
Mediator	Harmonious environmental passion	Channels motivation into action

Mechanism type	Variable	Role in the link
Mediator	Green commitment / knowledge sharing	Transfers and sustains green effort
Moderator	Green transformational leadership	Strengthens practice effects
Moderator	Green organisational culture	Amplifies supportive context
Moderator	Personal green values	Conditions individual response

It is worth noting two caveats: limitations in methodology (most studies rely on cross-sectional partial least squares structural equation modeling of surveys in hospitality and manufacturing industries, often based in a single country) and their nature (associations rather than causes). It also opens up reverse causation, and common method bias (Tandon et al., 2023). Substantively, the near-total focus on positive outcomes can obscure darker possibilities. The effects of green demands have been found to have performance and well-being implications, where the benefits of green behavior for employees prove conditional rather than automatic (Gyensare et al., 2023). Technology-enabled greening shows similar ambivalence (Ogbeibu et al., 2023). Where green practices merely serve symbolic display, they shade into greenwashing. Tandon et al. (2023) make these non-green outcomes explicit, and an integrative framework should account for both faces of green practices. Reconciling them need not weaken GHRM; it can strengthen the case for GHRM by elucidating the conditions (genuine senior commitment, adequate resourcing, honest measurement) under which green practices deliver behavior without exacting hidden costs from employees or weakening external credibility.

5. Implications for practice

The main lesson for managers is to ensure every intervention, from the training day to the recycling scheme, is part of a system that reinforces itself. The three components of capability, motivation and opportunity should not be bolted on (Amjad et al., 2021). Recruitment for environmental values eases later training, and appraisal/reward sustains attention to green behavior as the novelty and high intrinsic motivation fade. As participation is not required, involvement and empowerment are particularly important in firms that want to cultivate citizenship and creativity. They allow firms to give discretion without tightly controlling their employees (Pham et al., 2019). It follows that the sequencing of investment is clear. Value-based selection and training build the capacity of employees upon which appraisal and reward can operate. A resource-constrained firm will do better getting the front end of the business right than by messing around with the incentives on the back end with an unprepared workforce.

Leadership and culture are the levers that make the system live (Darvishmotevali & Altınay, 2021). Transformational and servant leadership styles increase practice effects and model the behavior they ask of others. Green values embedded in culture help sustain that behavior when leaders are not present (Roscoe et al., 2019). For resource-constrained and particularly emerging-economy managers, top-management commitment is a constraining factor: green practices are unlikely to translate into performance without institutional support at senior levels (Haldorai et al., 2021). Finally, honest measurement protects the firm from the reputational and motivational costs of greenwashing and ensures that green claims have accompanying substantive change.

6. Limitations and future research

Limitations of this review include those of the studies included. The bias of cross-sectional sampling and over-representation of hospitality and manufacturing industry renders findings less generalizable

to other industries (e.g., healthcare) in which conceptual work has out-paced empirical validation (Mousa & Othman, 2019). Some priorities include longitudinal and experimental design to determine causality and directionality, as well as capturing the long-term trajectories of green behavior as practices bed in. Multilevel, multi-source data would help to separate the real from the common method effects, as well as test the individual, team and organizational branches of the framework. Cross-national and cross-institutional studies could further indicate the extent to which mechanisms evidenced in an emerging economy context hold in other contexts (Rana & Arya, 2023). Future theory development and empirical research in GHRM needs to incorporate the role of new smart and algorithmic technologies, which may change what HRM practices are relevant (Ogbeibu et al., 2023). Most importantly, there needs to be a better balance in examining non-green and unwanted consequences, which are largely absent but necessary to avoid assuming that the costs of green work intensification do not exist.

7. Conclusion

A promising avenue to link green organizational strategy with employee behavior is green human resource management. A strong body of evidence links integrated green systems to pro-environmental behavior and firm environmental performance. Part of the explanation involves building human abilities, motivation and opportunity, which psychological climate, identity and leadership translate into behavior, which innovation and intellectual capital channel into performance. This story seems plausible, but because so much of the evidence is cross-sectional single-sector survey work that focuses only on green outcomes, it must be treated with caution. The GHRM literature would be more mature if methodological rigor were matched by a willingness to face trade-offs. Green work is not an unconditional good or a Pavlovian stimulus; it is a managerial intervention the effects of which need studying.

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