



Green Human Resource Management and Organizational Performance in the Educational Sector: A Conceptual Review and Framework

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Abstract – Purpose: Educational institutions are increasingly expected to demonstrate environmental responsibility alongside academic excellence, yet the human resource mechanisms through which this responsibility is actually embedded into institutional life remain under-examined. This paper conceptually examines how Green Human Resource Management (Green HRM) practices influence organizational performance in the educational sector, and proposes an integrated framework linking Green HRM practice bundles to institutional performance outcomes through employee green behaviour. **Design/Methodology/Approach:** The paper adopts a conceptual, literature-based approach, synthesizing peer-reviewed research on Green HRM, the Ability-Motivation-Opportunity (AMO) framework, the Resource-Based View, and Social Exchange Theory, with particular attention to studies situated in higher education institutions. **Findings:** The review indicates that Green HRM practices – green recruitment and selection, green training and development, green performance management, green compensation, and green employee involvement – enhance organizational performance in educational institutions primarily by shaping employee green behaviour, which in turn improves environmental performance, staff engagement and retention, institutional reputation, and social responsibility outcomes. **Top management support and green organizational culture emerge consistently as boundary conditions that strengthen or weaken this relationship. Practical Implications:** The proposed framework offers educational leaders and HR administrators a structured basis for designing, sequencing, and evaluating Green HRM interventions, rather than adopting green practices in an ad hoc or symbolic manner. **Originality/Value:** While Green HRM has been extensively studied in manufacturing and corporate contexts, its conceptualization within educational institutions – as employers of knowledge workers with a dual mandate to model and teach sustainability – remains comparatively limited. This paper contributes an integrated, AMO-grounded conceptual framework tailored specifically to the educational sector.

Keywords – Green HRM; Organizational Performance; Educational Sector; AMO Theory; Employee Green Behaviour.

I. INTRODUCTION

Educational institutions occupy an unusual position in the sustainability landscape: they are simultaneously employers who must manage the environmental footprint of their own operations, and the institutions responsible for training the managers, engineers, and citizens who will carry sustainability practices into every other sector of the economy. This dual role gives Green Human Resource Management (Green HRM) a particular significance in higher and professional education that it does not carry to the same degree in purely commercial organizations. When a university or college embeds environmental values into how it recruits, trains, evaluates, and rewards its own staff, it is not only managing its ecological footprint; it is also modelling, for thousands of students who pass through its programmes, what environmentally responsible organizational practice looks like in operation.

Green HRM is generally understood as the application of HRM policies and practices – recruitment, training, performance management, compensation, and employee involvement – to promote the sustainable and environmentally responsible use of an organization's human and physical resources (Opatha & Arulrajah, 2014; Renwick, Redman, & Maguire, 2013). Since Renwick et

al.'s (2013) foundational review organized the field around the Ability-Motivation-Opportunity (AMO) framework, a substantial body of research has established that Green HRM practices shape employee green behaviour, which in turn drives a range of organizational outcomes spanning environmental, social, and financial performance (Ahmad, 2015; Dumont, Shen, & Deng, 2017; Jackson, Renwick, Jabbour, & Muller-Camen, 2011).

Much of this evidence, however, originates from manufacturing, hospitality, and corporate services contexts. Research situated specifically within educational institutions – schools, colleges, and universities – has grown rapidly only in the past few years, and it points to some sector-specific dynamics worth isolating. A 2024 study of staff at a Saudi Arabian university, for instance, found that Green HRM practices improved university sustainability primarily through the mediating effects of staff environmental performance and green commitment, with the effect strengthening further when green performance evaluation was well designed (Zahrani, 2024). A separate study across Indonesia's largest private universities similarly found that Green HRM practices improved sustainable university performance through the green psychological climate experienced by academic and non-academic staff alike (Akbar, Maratis, Nawangsari,



ISSN:3048-7722

Putri, & SK, 2024). These findings suggest that in educational institutions, Green HRM's effect on performance runs substantially through the internal psychological and behavioural states of staff – their sense of commitment, climate, and perceived legitimacy of the institution's environmental intent – rather than through structural or technological change alone.

Despite this emerging evidence, the literature linking Green HRM to organizational performance in the educational sector remains fragmented: individual studies typically examine one or two Green HRM practices in isolation, use inconsistent performance measures, and rarely integrate their findings into a single, testable conceptual model tailored to the distinctive features of educational institutions – namely, their knowledge-worker workforce, their dual role as both employer and educator, and their comparatively limited operational control over some environmental impacts relative to manufacturing firms. This paper addresses that gap. Adopting a conceptual, literature-based approach, it synthesizes the Green HRM, AMO theory, and higher-education-sustainability literatures into an integrated framework linking Green HRM practice bundles to organizational performance in educational institutions through the mediating mechanism of employee green behaviour, with top management support and green organizational culture proposed as boundary conditions. The remainder of the paper reviews the relevant literature, presents and explains the proposed conceptual framework, states the study's objectives and methodology, discusses the framework's implications, and concludes with limitations and directions for future empirical research.

II. LITERATURE REVIEW

Conceptualizing Green Human Resource Management

Green HRM refers to the alignment of an organization's human resource policies and practices with its environmental management goals, so that the workforce itself becomes an active vehicle for achieving sustainability objectives rather than a passive bystander to them (Jabbour & Santos, 2008; Opatha & Arulrajah, 2014). The concept extends earlier work on Sustainable HRM and Corporate Social Responsibility (CSR) by focusing specifically on the environmental dimension of sustainability as it is operationalized through core HR functions (Jackson et al., 2011). Ahmad (2015) offers one of the more widely cited practice-level definitions, framing Green HRM as the deliberate use of HRM policies to promote the sustainable use of resources within business organizations, and, more broadly, to advance environmentalism as an organizational value.

Green HRM Practice Bundles

Consistent with the broader HRM literature's emphasis on practice “bundles” rather than isolated interventions, Green HRM is typically operationalized across five interrelated practice areas. Green recruitment and selection involves attracting and selecting candidates on the basis of environmental awareness and values, and using an

organization's environmental reputation as an employer-branding asset. Green training and development builds employees' environmental knowledge and skills – the “ability” component of the AMO framework – through induction content, workshops, and role-specific environmental competencies.

Green performance management and appraisal incorporates environmental criteria, targets, or green key performance indicators into staff evaluation systems, an area Zahrani (2024) found to be particularly influential in strengthening the link between Green HRM and staff environmental commitment. Green compensation and rewards ties incentives, recognition, or career progression to environmentally responsible behaviour. Green employee involvement creates participatory channels – green suggestion schemes, sustainability committees, green teams – through which staff can contribute ideas and take ownership of environmental initiatives (Renwick et al., 2013; Dumont et al., 2017).

Theoretical Perspectives on Green HRM and Performance

Four theoretical perspectives recur across the Green HRM literature and jointly inform the framework proposed in this paper. The Ability-Motivation-Opportunity (AMO) framework, most systematically applied to Green HRM by Renwick et al. (2013), proposes that HR practices influence performance by building employees' ability (green knowledge and skills), motivation (green commitment and psychological climate), and opportunity (structures that allow employees to act on green motivation) to engage in pro-environmental behaviour at work. The Resource-Based View (RBV) frames Green HRM as a mechanism for building rare, valuable, and difficult-to-imitate organizational capabilities – green intellectual capital and environmentally skilled human capital – that constitute a source of sustained competitive advantage.

Social Exchange Theory explains why employees reciprocate an organization's investment in green HRM with discretionary green behaviour: when staff perceive that the institution genuinely values environmental responsibility, they respond with commitment and voluntary environmental effort that exceeds formal job requirements (Dumont et al., 2017). Stakeholder Theory, finally, explains organizational adoption of Green HRM as a response to the expectations of a broad set of constituents – students, accreditation bodies, regulators, faculty, and the wider community – whose approval educational institutions depend upon for legitimacy and continued enrolment.

Green HRM in Higher Education Institutions

Empirical work situated specifically in higher education institutions (HEIs), though still comparatively young, is growing quickly and offers useful sector-specific insight. Lashari, Li, Maitlo, Bughio, Jhatial, and Rashidi (2022) examined how university managers themselves perceive environmental sustainability through the lens of Green HRM, underscoring that leadership perception and buy-in



ISSN:3048-7722

shape how deeply green practices are institutionalized. Zahrani (2024) found that Green HRM practices improved university sustainability through the mediating roles of staff environmental performance and green commitment, with the relationship strengthened when green performance evaluation and appraisal were well implemented.

Akbar et al. (2024), studying Indonesia's largest private universities, found that Green HRM practices improved sustainable university performance through the green psychological climate experienced by both academic and non-academic staff, highlighting that the effect of Green HRM depends heavily on how staff subjectively perceive the institution's environmental climate, not merely on the formal existence of green policies. Together, these studies suggest that in educational institutions – where the “product” is knowledge and the workforce is highly educated and values-driven – Green HRM's effect on performance operates substantially through psychological and behavioural mediators rather than through operational or technological levers alone, reinforcing the centrality of the AMO framework's motivation and opportunity components in this specific sector.

Research Gaps

1. **Fragmentation across practices:** most educational-sector studies examine one or two Green HRM practices (commonly training or performance appraisal) rather than the full practice bundle, limiting understanding of how the practices function together.
2. **Underused mediating mechanisms:** while green commitment and green psychological climate have each been examined individually (Zahrani, 2024; Akbar et al., 2024), few studies integrate employee green behaviour as a unified AMO-based mediating mechanism specific to educational institutions.
3. **Limited attention to boundary conditions:** the moderating roles of top management support and green organizational culture are frequently mentioned as relevant but are rarely modelled explicitly within a single educational-sector framework.
4. **Narrow performance measures:** many existing studies operationalize performance narrowly as “environmental performance” or “sustainability,” giving less attention to institution-specific outcomes such as reputation, staff retention, and social responsibility performance that matter distinctly to educational institutions competing for students, faculty, and accreditation standing.
5. **Context concentration:** much of the available higher-education evidence originates from specific national contexts (e.g., Saudi Arabia, Indonesia, Pakistan), leaving open questions about how institutional type, funding model, and regulatory environment shape the Green HRM–performance relationship elsewhere, including in the Indian higher education context.

III. CONCEPTUAL FRAMEWORK

Building on the AMO framework and the sector-specific findings reviewed above, this paper proposes an integrated conceptual model linking Green HRM practice bundles to organizational performance in educational institutions through the mediating mechanism of employee green behaviour, with top management support and green organizational culture proposed as a moderating boundary condition. The framework is presented in Figure 1.

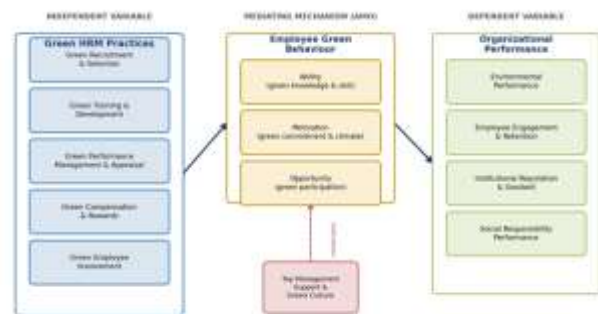


Figure 1. Conceptual Framework – Green HRM and Organizational Performance in Educational Institutions

Explanation of the Framework

The independent variable, Green HRM Practices, is modelled as a bundle of five interrelated practice areas – green recruitment and selection, green training and development, green performance management and appraisal, green compensation and rewards, and green employee involvement – consistent with the practice taxonomy established in the Green HRM literature (Renwick et al., 2013; Ahmad, 2015).

The mediating mechanism, Employee Green Behaviour, is modelled through the three AMO components: Ability (the green knowledge and skills built primarily through green training), Motivation (the green commitment and psychological climate shaped by recruitment, appraisal, and reward practices), and Opportunity (the structural avenues for participation created by green employee involvement). This tripartite mediator reflects Renwick et al.'s (2013) original AMO categorization of the Green HRM literature and is consistent with the mediating roles empirically identified in educational settings by Zahrani (2024) and Akbar et al. (2024).

The dependent variable, Organizational Performance, is disaggregated into four dimensions of particular relevance to educational institutions: environmental performance (resource efficiency, waste and emissions reduction); employee engagement and retention (a long-standing outcome associated with Green HRM in the broader literature); institutional reputation and goodwill (relevant given how strongly accreditation, rankings, and student recruitment now weight sustainability credentials); and social responsibility performance (the institution's demonstrated contribution to community and societal environmental goals).



ISSN:3048-7722

Finally, Top Management Support and Green Organizational Culture are proposed as a moderating condition, consistent with evidence that the strength of the Green HRM–performance relationship depends on whether staff perceive genuine institutional commitment to environmental goals, rather than symbolic or superficial adoption (Lashari et al., 2022). Where leadership support and a supportive green culture are weak, Green HRM practices are expected to translate less effectively into employee green behaviour, regardless of how well the practices themselves are designed.

IV. OBJECTIVES OF THE STUDY

1. To examine how Green HRM practices – green recruitment, training, performance management, compensation, and employee involvement – are conceptualized and applied within educational institutions.
2. To develop an integrated conceptual framework linking Green HRM practice bundles to organizational performance in educational institutions through the mediating mechanism of employee green behaviour.
3. To identify the theoretical mechanisms (AMO theory, RBV, Social Exchange Theory, Stakeholder Theory) that explain how and why Green HRM influences performance outcomes in this sector.
4. To examine the moderating role of top management support and green organizational culture in strengthening or weakening the Green HRM–performance relationship.
5. To identify gaps in the existing literature and propose directions for future empirical research testing the proposed framework in educational institutions.

V. RESEARCH METHODOLOGY

Research Approach

This study adopts a conceptual, literature-based research design. Rather than collecting primary data, it synthesizes and integrates findings from peer-reviewed journal articles, review papers, and sector-specific empirical studies on Green HRM, drawing particularly on research published between 2011 and 2025 to ensure the review reflects both foundational theory and current empirical developments in the higher-education context.

Data Sources and Search Strategy

Sources were identified through academic databases and publisher platforms (including journals indexed in Scopus and Web of Science) using search terms combining “Green HRM,” “green human resource management,” “AMO theory,” “organizational performance,” “higher education,” and “educational institutions.” Priority was given to peer-reviewed journal articles, with particular emphasis on studies empirically situated in universities and other educational institutions.

Analytical Approach

Sources were thematically analyzed and organized around the five Green HRM practice areas, the four theoretical perspectives (AMO, RBV, Social Exchange, and Stakeholder Theory), and the performance outcomes reported in educational-sector studies. This thematic synthesis formed the basis for the conceptual framework presented in Section 3.

Variables of the Study

- **Independent Variable:** Green Human Resource Management practices (green recruitment and selection, green training and development, green performance management and appraisal, green compensation and rewards, green employee involvement).
- **Mediating Variable:** Employee Green Behaviour (operationalized through the Ability-Motivation-Opportunity components).
- **Moderating Variable:** Top Management Support and Green Organizational Culture.
- **Dependent Variable:** Organizational Performance in the educational sector (environmental performance, employee engagement and retention, institutional reputation and goodwill, social responsibility performance).

VI. DISCUSSION

The literature reviewed in Section 2 and synthesized into the framework in Section 3 converges on several points that carry meaningful implications for how educational institutions should think about Green HRM. First, Green HRM in the educational sector does not appear to function as a purely administrative or compliance-driven exercise; its effect on institutional performance is substantially channelled through employees' psychological and behavioural responses – their sense of green commitment, their perception of a green psychological climate, and their willingness to engage in discretionary environmental behaviour (Akbar et al., 2024; Zahrani, 2024). This suggests that educational institutions investing in Green HRM without attending to how staff perceive and experience these practices – as genuine versus symbolic, as well-resourced versus token – are unlikely to see the same performance gains reported in the empirical literature.

Second, the practice bundle matters more than any single practice in isolation. Green training builds the ability component of AMO, but ability alone rarely translates into behaviour without corresponding motivation (built through recognition, appraisal, and a supportive climate) and opportunity (built through participatory structures such as green teams and suggestion schemes). This is consistent with the broader AMO literature's insistence that ability-, motivation-, and opportunity-enhancing practices function complementarily rather than as substitutes (Renwick et al., 2013).



ISSN:3048-7722

Third, the moderating role of top management support and green culture proposed in the framework reflects a recurring caution in the higher-education Green HRM literature: leadership perception and genuine institutional commitment shape how deeply green practices take root (Lashari et al., 2022). An institution that formally adopts green recruitment or green appraisal criteria without visible leadership commitment risks employees perceiving these practices as superficial, which the Social Exchange Theory perspective suggests would blunt, rather than strengthen, employees' reciprocal green behaviour.

Finally, the disaggregation of organizational performance into environmental, engagement/retention, reputational, and social-responsibility dimensions reflects the distinctive stakes educational institutions face relative to manufacturing or corporate contexts: their performance is judged not only on operational efficiency but on their standing with students, accreditation bodies, faculty, and the broader public, all of which are increasingly sensitive to demonstrated environmental commitment.

VII. PRACTICAL AND MANAGERIAL IMPLICATIONS

- Design Green HRM as a coordinated bundle rather than isolated initiatives, since the AMO framework suggests ability-, motivation-, and opportunity-building practices reinforce one another.
- Invest specifically in green performance management and appraisal, which the sector-specific literature identifies as a particularly strong lever for strengthening staff green commitment (Zahrani, 2024).
- Build visible, sustained top management support, since perceived leadership commitment appears to determine whether Green HRM practices are experienced by staff as genuine or symbolic.
- Create structured participation channels (green teams, sustainability committees, suggestion schemes) to supply the “opportunity” component of AMO, which is otherwise easy to overlook relative to training and reward design.
- Measure performance across multiple dimensions – environmental, engagement/retention, reputational, and social responsibility – rather than relying on a single sustainability metric, to capture the full institutional value of Green HRM investment.

VIII. CONCLUSION

This paper has synthesized the Green HRM literature, with particular attention to studies situated in higher education institutions, into an integrated conceptual framework linking Green HRM practice bundles to organizational performance through the mediating mechanism of employee green behaviour, moderated by top management support and green organizational culture. The review suggests that educational institutions seeking to realize the performance benefits associated with Green HRM in the

broader literature must attend not only to the formal adoption of green practices, but to how genuinely and coherently those practices are experienced by staff. As educational institutions face growing pressure from accreditation bodies, students, and the public to demonstrate environmental responsibility, a structured, AMO-grounded approach to Green HRM offers a theoretically informed and practically actionable path toward that goal. The proposed framework is offered as a foundation for future empirical testing, discussed further below.

IX. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

As a conceptual paper, this study is based on secondary literature rather than primary data, and the proposed framework has not yet been empirically tested; future research should operationalize its constructs and test the proposed relationships using survey-based methods (e.g., structural equation modelling) among faculty and administrative staff in educational institutions. Second, the review draws on studies concentrated in a limited set of national contexts (notably Saudi Arabia, Indonesia, and Pakistan); the extent to which the framework generalizes to other regulatory, cultural, and institutional-funding environments, including the Indian higher education context, remains an open empirical question. Third, the framework focuses on staff-level mechanisms and does not explicitly model student-level outcomes (e.g., student environmental attitudes shaped by exposure to a green institutional culture), which represents a promising extension for future work. Finally, future research could usefully compare the framework's applicability across institutional types – research universities, teaching-focused colleges, and technical/vocational institutions – which may differ in resource availability and organizational structure relevant to Green HRM implementation.

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ISSN:3048-7722

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