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GREEN HUMAN RESOURCE MANAGEMENT, PRO-ENVIRONMENTAL BEHAVIOR, AND ENVIRONMENTAL PERFORMANCE IN THE HOTEL INDUSTRY: AN INTEGRATED REVIEW AND FUTURE RESEARCH AGENDA

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ABSTRACT

The hotel industry faces growing pressure to implement sustainable practices due to its environmental impact. This paper reviews research on Green Human Resource Management (GHRM), Pro-Environmental Behavior (PEB), and Environmental Performance (EP), with a focus on their interconnections in hospitality. The findings indicate that GHRM practices such as green recruitment, training, appraisal, and rewards significantly influence employees' environmental attitudes and behaviors. Employees' PEB serves as a key mechanism through which HR policies drive tangible improvements, including reduced energy and water use, waste reduction, and attainment of eco-certifications. Using Ability–Motivation–Opportunity (AMO) theory, Social Exchange Theory (SET), and Social Cognitive Theory (SCT), this paper presents a framework illustrating how PEB connects GHRM and EP. The framework also examines the roles of supervisor support behavior (SSB) and green organizational culture (OC) in enhancing the effectiveness of GHRM. This study contributes to sustainability research in hospitality by synthesizing existing findings and proposing future research directions across various hotel contexts.

Keywords: Green Human Resource Management, Pro-Environmental Behavior, Environmental Performance, Hotel Industry, Sustainability.

1. INTRODUCTION

The hospitality sector is one of the largest contributors to environmental degradation due to its high energy consumption, water usage, and waste generation (Chan, 2011). Sustainability has become a crucial priority in the global hospitality sector, where hotels face mounting pressure to reduce environmental impacts while maintaining service excellence. Customers increasingly prefer eco-friendly hotels, governments impose strict environmental regulations, and international organizations encourage sustainable operations (Kang et al., 2012). As such, the adoption of GHRM practices can play a transformative role in shaping employees' pro-environmental behavior (PEB), which refers to voluntary and discretionary actions that support ecological sustainability, such as energy conservation, waste management, and resource efficiency. Green Human Resource Management (GHRM) has emerged as a critical approach that integrates environmental sustainability into human resource practices by aligning recruitment, training, performance management, and rewards with ecological objectives. Recent studies (Hosain et al., 2025; Al-sabi et al., 2024; Ali et al., 2023; Darvishmotevali & Altinay, 2022) indicate that GHRM practices not only stimulate eco-friendly workplace behaviors but also enhance environmental performance of organizations. For instance, Kim et al. (2019) demonstrated that green HRM significantly enhances eco-friendly behavior among hotel employees, while Pham et al. (2019) confirmed that green training and rewards are strong predictors of organizational citizenship behavior for the environment in hospitality. More recently, research by Vu et al., (2025) emphasized the strategic role of green HRM in influencing pro-environmental behaviors of employees with environmental knowledge and awareness and highlighting growing environmental performance of hotels. Similarly, Laia & Palupiningtyas (2025) found that GHRM positively influenced pro-environmental behavior and environmental performance of hotels and employees' pro-environmental behavior acted as partial mediator between GHRM and hotel's environmental performance. Importantly, supervisory support behavior and green organizational culture act as contextual factors that determine the strength of these relationships. Supervisors serve as role models, motivating employees to align with sustainability goals, while green organizational culture embeds environmental values into daily operations.

Research gap: Together, these variables provide a holistic understanding of how hotels can achieve enhanced environmental performance. While existing research has examined these constructs separately, there is a lack of integrative frameworks that link GHRM, PEB, SSB, OC and EP in the hospitality sector.

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2. OBJECTIVE OF THE STUDY

The objective of this review paper is to synthesizes existing literature on these three domains, develops a conceptual framework, and identifies future research directions.

3. REVIEW OF LITERATURE

3.1 Green Human Resource Management Practices

GHRM refers to the integration of environmental management into HR practices such as recruitment, training, performance appraisal, and rewards (Renwick et al., 2013). Studies in hotels show that green recruitment and training enhance employee eco-awareness, while green rewards foster long-term commitment to sustainability (Kim et al., 2019). GHRM encompasses environmentally focused HR practices such as green recruitment, green training, performance appraisal, and rewards for eco-friendly behaviors. These practices create awareness, develop green competencies, and foster motivation among employees. Research demonstrates that GHRM directly impacts employees' attitudes and intentions toward sustainable practices, positioning HR as a strategic driver of environmental performance (Pham et al., 2019; Nisar et al., 2021). Practices in hospitality include:

Green recruitment and selection: Attracting environmentally conscious candidates

Green training and development: Enhancing employee environmental knowledge and skills through green training programs, workshops, sessions etc.

Green performance management: Evaluating employees based on sustainability contributions. **Green rewards and compensation**: Monetary and non-monetary incentives for green behavior by recognizing eco-friendly performance.

Green Employee involvement: Engaging employees in green decision-making and initiatives.

3.2 Pro-Environmental Behavior in Hotels

PEB refers to individual actions undertaken to minimize negative impacts on the natural environment (Steg & Vlek, 2009). PEB refers to employees' voluntary and task-related behaviors that minimize environmental harm and contribute to sustainability (Paillé et al., 2014). In the hotel context, this may include turning off unused electrical equipment, conserving water, reducing waste, and promoting recycling practices. As a mediating mechanism, PEB translates GHRM initiatives into practical actions, bridging the gap between organizational policies and sustainable outcomes. Employee PEB has been linked to improved guest satisfaction, positive corporate image, and enhanced environmental outcomes (Kim et al., 2019). Supervisor support and organizational culture are major determinants of employees' PEB (Luu, 2017). Examples of PEBs in hotels include:

Energy conservation (switching off unused appliances).

Waste reduction and recycling.

Green service behaviors (encouraging guests to participate in eco-initiatives).

Suggesting innovative green practices by employees

Water management practices

Planting trees

Reduced paperwork with usage of computers

3.3 Environmental Performance of Hotels

Environmental performance represents measurable outcomes of sustainability initiatives, including resource efficiency, pollution control, and environmental certifications (Chan, 2011). Environmental performance reflects an organization's ability to achieve eco-efficiency, reduce carbon footprint, and minimize waste while maintaining operational effectiveness. Hotels with high employee involvement in eco-practices report improved EP, reduced operational costs, and enhanced competitive advantage (Kang et al., 2012). Recent studies indicated that hotels are implementing strong GHRM practices to achieve their higher environmental performance by promoting pro-environmental behaviors among employees (Ali et al., 2023, Nasir et al., 2021). Indicators include:

Reduced energy and water usage.

Waste minimization and recycling rates.

Reduced water consumption.

Usage of solar panels for electricity

Attainment of certifications such as ISO 14001, LEED, or Green Key.

Guest satisfaction with green initiatives.

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3.4 Mediating Role of PEB

PEB mediates the relationship between GHRM and environmental performance. Several recent studies (Hosain et al., 2025; Elshaer et al., 2021) investigated the relationships between GHRM, PEB and EP of organizations. Another research focused on large hotels indicated that employee green behavior mediates the relationship between GHRM practices and EP of hotels (Pham et al., 2019).

3.5 Moderating Role of Supervisory Support Behavior

Management teams create a shared set of values, beliefs, and ideas known as the "organisational culture" to affect organisational behaviour and attitude towards achieving shared corporate goals (Al-Swidi et al., 2021). Green organizational culture has a positive effect on workers' work because it makes them more concerned about environmental issues. The employees' intentional attempts to go green and adopt green behaviour are valuable not only for them themselves but also for the possibility that green organizational culture will change their mindset and behaviour and encourage them to take action to protect the environment (Wang et al., 2022).

3.6 Moderating Role of Green Organizational Culture

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Table 1: Summary of Recent Studies on GHRM, PEB, Supervisory Support Behavior, Green Organizational Culture, and Environmental Performance

Author(s) & Year	Context/ Industry	Variables Studied	Key Findings
Kaur, Atwal & Nayak (2025)	General/ cross-section study	Green HRM's determinants and outcomes	The review tried to focus on organizational and employee-related factors to study the determinants and outcomes of green HRM.
Kaur & Atwal (2025)	Education sector	Green HRM practices	This study has discussed the implementation of the GHRM or green practices in Indian educational institutions.
Hosain et al., (2025)	Manufacturing firms	GHRM, Employee Green Behavior, Environmental Performance	GHRM positively impacts directly and indirectly EP via EGB
Al-sabi et al., (2024)	Hotel industry	GHRM, PEB, Job satisfaction and Environmental Performance	GHRM has substantial impact on both PEB and Job satisfaction among employees in hotel organizations which enhances environmental performance of hotels.
Ali et al., (2023)	Malaysian hospitality industry	GHRM, pro-environmental attitudes, green behaviors, and green work climate perceptions and environmental performance	Employees' green behaviors are the key contributors to enhance sustainable hotel performance.
Wang et al., (2022)	Manufacturing services and firms	Green knowledge management, green innovation and organizational green culture	OGC strengthens the connection between GKM and green innovation to achieve sustainability.

Akhtar et al., (2021)	Education sector	GHRM, PEB, environmental knowledge and Leader's support	Leaders' support moderates the impact of green opportunity and green ability-enhancing practices enhancing students' PEB.
Ojo et al., (2020)	IT sector	GHRM practices, PEB, environmental IT performance	The findings suggest that GHRM practices are important indicators of environmental IT performance with PEB.
Pham et al., (2019)	Hospitality industry	GHRM practices, OCBE	Green training is seen as a key predictor to enhance employees' voluntary green behavior.
Yusoff et al., (2018)	Hotel industry	GHRM practices, environmental performance	The results indicated that GHRM practices have a significant relationship with environmental performance except green performance appraisal.
Atwal & Singh (2016)	Manufacturing sector	Employee engagement, eco-initiatives, SSB	The study proposed a framework to analyse the links and the impact of various managerial factors on employee's eco-initiatives in the firms.
Raineri & Paille (2016)	Service sector	Corporate Policy, Supervisory Support and Environmental Citizenship Behaviors	Employees are more committed to environmental goals and responsibilities, which are influenced by citizenship behaviours, when supervisor support environmental preservation.
Paillé et al. (2014)	Service sector	GHRM, PEB, organizational support	Organizational support moderates' relationship between GHRM and green behavior.

Source: The Authors

4. THEORETICAL UNDERPINNINGS

4.1 Ability-Motivation-Opportunity (AMO) Theory: Appelbaum et al. (2000) proposed the AMO theory, which focuses on assisting in the selection of HRM strategies that could enhance organizational performance. Using the AMO theory, Akhtar et al. (2021) investigated the connection between students' pro-environmental behaviour (PEB) and green HRM practices (i.e., ability, motivation, and opportunity).

4.2 Resource Based View (RBV) Theory: The RBV's main principle is that human resources are an organization's most valuable, rare, and distinct asset (Barney, 1991). Ojo et al., (2020) found that GHRM practices as organisational resources for promoting employee pro-environmental behaviour to support environmental performance which adds to the resource-based view of HRM.

4.3 Social Exchange Theory (SET): Social exchange theory explains the study of social behavior in the interaction of two parties who use cost-benefit analysis to identify risks and rewards. Employees reciprocate organizational and supervisory support through PEB (Blau, 1964). Zhu et al., (2021) applied social exchange theory to identify the impact of green HRM on employees 'green behavior in organizations through environmental knowledge and green values.

4.4 Social Cognitive Theory (SCT): Supervisors act as role models, and organizational culture reinforces employees' eco-friendly behavior (Bandura, 1986).

5. PROPOSED CONCEPTUAL FRAMEWORK

This review proposes a framework where GHRM positively influences EP directly and indirectly through PEB. Additionally, supervisor support behavior, and green organizational culture act as moderators. Based on the reviewed literature, the proposed framework suggests that:

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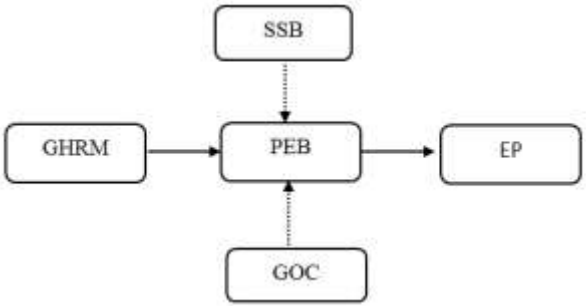

Figure 1: Proposed Conceptual Framework

Source: The Authors

6. PROPOSITIONS/HYPOTHESIS

- **P1:** GHRM positively influences employees' pro-environmental behaviors in hotels.
- **P2:** Employees' pro-environmental behaviors positively influence hotel environmental performance.
- **P3:** PEB mediates the relationship between GHRM and environmental performance.
- **P4:** Supervisor support moderates the GHRM–PEB link, strengthening it.
- **P5:** Green Organizational culture moderates the GHRM–PEB link, strengthening it.

7. LIMITATIONS AND FUTURE RESEARCH AGENDA

- Few studies integrate supervisory support behavior and green organizational culture as boundary conditions in the GHRM–PEB–EP model.
- Most existing research on GHRM and PEB in hospitality is empirical but fragmented.
- More longitudinal and cross-cultural research is needed to assess variations across regions and hotel categories.
- Few studies focus specifically on hotels in developing economies (e.g., India, Southeast Asia).
- Empirical testing of green organizational culture's role as a long-term sustainability enabler is limited.
- Investigate guest participation in reinforcing employee PEB.

8. CONCLUSION

The review demonstrates that GHRM is essential in embedding sustainability in hotels, but its outcomes depend heavily on employees' PEB which acts as the mechanism translating HR practices into tangible environmental outcomes. By synthesizing existing literature and proposing a conceptual framework, this study contributes to both theory and practice. Supervisory support behaviors and green organizational culture play crucial roles in strengthening this link, ensuring that eco-practices move beyond policy to daily routines. This integrated framework offers a roadmap for researchers and practitioners to enhance environmental performance in hospitality. Future empirical studies should test the proposed model across diverse contexts, thereby strengthening the sustainability discourse in hospitality.

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