

Exploring the Interrelationship between Green HRM Practices, Employee Motivation, and Environmental Performance in Private Hospitals of Kolkata...A study

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Abstract

This study explores the intricate relationships among various dimensions of Green Human Resource Management (GHRM) practices and their collective influence on employee motivation and environmental performance in private hospitals across Kolkata. Key constructs analyzed include Green Training and Development (GTD), Management and Organizational Culture (MOC), Green Recruitment and Selection (GRS), Green Performance Management and Appraisal (GPMA), and Green Reward and Compensation (GRC). The findings reveal strong positive correlations ($r = 0.87\text{--}0.94$) among all core GHRM dimensions, suggesting a coherent and integrated approach toward sustainability-oriented HR systems. Employee Motivation (EMP) shows high association with GHRM factors, indicating that motivated employees play a vital role in implementing and sustaining green initiatives. Although Environmental Performance (EP) exhibits a moderate positive correlation ($r = 0.58\text{--}0.66$) with GHRM practices, demographic variables such as age, gender, and years of experience show minimal or negative association, electing limited demographic influence on green engagement. The study emphasizes the need for strategic integration of GHRM practices to enhance sustainability outcomes in healthcare institutions.

Keywords: Green HRM, Employee Motivation, Environmental Performance, Organizational Culture, Green Recruitment, Hospital, Sustainability

1. Introduction

The growing environmental challenges of the twenty-first century have compelled organizations to integrate sustainability into their operational and managerial frameworks. Within the healthcare sector, which is known for its significant energy consumption and waste generation, sustainability initiatives are crucial for minimizing ecological impact. Green Human Resource Management (GHRM) has emerged as a vital strategic tool that aligns human resource functions with environmental objectives.

GHRM involves designing and implementing policies that promote environmental awareness and responsibility among employees. It encompasses several interrelated dimensions such as Green Training and Development (GTD), Green Recruitment and Selection (GRS), Green Performance Management and Appraisal (GPMA), Green Reward and Compensation (GRC), and Management and Organizational Culture (MOC). These practices collectively encourage employees to adopt eco-friendly behaviors and contribute toward sustainable organizational performance.

This study focuses on private hospitals in Kolkata—namely Apollo, Narayana, Peerless, Manipal, and TATA Medical—to understand how GHRM dimensions interact and influence Employee Motivation (EMP) and Environmental Performance (EP). By examining the inter correlations among these variables, the study provides insights into how a culture of sustainability can be cultivated in healthcare settings through effective HRM strategies.

2. Literature Review

2.1 Green Human Resource Management (GHRM) in the Healthcare Sector

Green Human Resource Management (GHRM) integrates environmental goals into HR policies and systems to ensure sustainable organizational performance (Renwick et al., 2013). In healthcare, where resource consumption and waste generation are high, GHRM helps reduce ecological footprints through eco-friendly recruitment, environmental training, and green performance systems (Yong et al., 2020; Ojo et al., 2021).

2.2 Green Training and Development (GTD) and Employee Behavior

Green Training and Development equips employees with environmental knowledge and skills. Effective green training increases awareness, promotes pro-environmental attitudes, and reinforces sustainable behavioral change (Tang et al., 2018). In hospitals, continuous green training strengthens employee involvement in waste reduction, energy saving, and safe resource management (Mousa & Othman, 2020).

2.3 Management and Organizational Culture (MOC)

A sustainability-driven organizational culture is vital for the success of green practices. When management promotes environmental values and engages employees in decision-making, sustainability becomes embedded within workplace norms (Pham et al., 2020). Hospitals with proactive leadership demonstrate stronger environmental commitment (Anwar et al., 2023).

2.4 Green Recruitment and Selection (GRS)

Green recruitment focuses on hiring candidates with pro-environmental values. Institutions that incorporate sustainability criteria during hiring develop a workforce aligned with long-term environmental goals (Amrutha & Geetha, 2020; Paillé & Boiral, 2020).

2.5 Green Performance Management and Appraisal (GPMA)

Incorporating environmental indicators into employee evaluations motivates eco-friendly behavior. Transparent feedback and recognition of green efforts enhance accountability and performance (Zaid et al., 2018; Yusliza et al., 2022).

2.6 Green Reward and Compensation (GRC)

Financial and non-financial rewards linked to environmental initiatives boost employee participation. Certifications, awards, and incentives reinforce a sustainability-oriented culture (Roscoe et al., 2019; Ojo et al., 2021).

2.7 Employee Motivation and Environmental Performance (EP)

Employee motivation mediates the relationship between GHRM practices and environmental outcomes. Motivated employees exhibit higher environmental citizenship behaviors, contributing to improved waste management and resource conservation in hospitals (Saeed et al., 2019; Anwar et al., 2023).

Objectives

1. To examine the interrelationship among various dimensions of Green Human Resource Management (GHRM) practices—such as Green Training and Development, Green Recruitment and Selection, Green Performance Management and Appraisal, Green Reward and Compensation, and Management and Organizational Culture—in private hospitals of Kolkata.
2. To analyze the influence of GHRM practices on employee motivation and environmental performance in the healthcare sector, identifying key factors that contribute to sustainability-oriented organizational outcomes.

2. Methodology

A quantitative approach was employed using a structured questionnaire distributed among 70 employees working in administrative, clinical, and support departments of five multispecialty hospitals in Kolkata. The study measured seven key scales:

GTD: Green Training and Development

MOC: Management and Organizational Culture

GRS: Green Recruitment and Selection

GPMA: Green Performance Management and Appraisal

GRC: Green Reward and Compensation

EMP: Employee Motivation

EP: Environmental Performance

Correlation analysis was performed to examine the strength and direction of relationships among these variables. Demographic factors such as age, gender, and years of experience were also included to assess their influence.

3. Analysis and discussion

		Correlations									
		GTD	MOC	GRS	GPMA	GRC	EMP	EP	1. Age	2. Gender	3. Years of Experience
GTD	Pearson Correlation	1	.929**	.922**	.933**	.877**	.940**	.611**	-.246*	-.016	-.095
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.040	.893	.435
	N	70	70	70	70	70	70	70	70	70	70
MOC	Pearson Correlation	.929**	1	.910**	.893**	.866**	.920**	.593**	-.217	-.028	-.057
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.072	.817	.642
	N	70	70	70	70	70	70	70	70	70	70
GRS	Pearson Correlation	.922**	.910**	1	.903**	.914**	.908**	.587**	-.382**	-.167	-.168
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.001	.166	.165
	N	70	70	70	70	70	70	70	70	70	70
GPMA	Pearson Correlation	.933**	.893**	.903**	1	.921**	.944**	.636**	-.329**	.012	-.091
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.005	.922	.451
	N	70	70	70	70	70	70	70	70	70	70
GRC	Pearson Correlation	.877**	.866**	.914**	.921**	1	.929**	.615**	-.432**	-.033	-.226
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.787	.060
	N	70	70	70	70	70	70	70	70	70	70
EMP	Pearson Correlation	.940**	.920**	.908**	.944**	.929**	1	.660**	-.381**	-.026	-.155
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.001	.832	.199
	N	70	70	70	70	70	70	70	70	70	70
EP	Pearson Correlation	.611**	.593**	.587**	.636**	.615**	.660**	1	-.343**	.223	-.161
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.004	.064	.184
	N	70	70	70	70	70	70	70	70	70	70
1. Age	Pearson Correlation	-.246*	-.217	-.382**	-.329**	-.432**	-.381**	-.343**	1	.177	.582**
	Sig. (2-tailed)	.040	.072	.001	.005	.000	.001	.004		.143	.000
	N	70	70	70	70	70	70	70	70	70	70
2. Gender	Pearson Correlation	-.016	-.028	-.167	.012	-.033	-.026	.223	.177	1	.163
	Sig. (2-tailed)	.893	.817	.166	.922	.787	.832	.064	.143		.178
	N	70	70	70	70	70	70	70	70	70	70
3. Years of Experience	Pearson Correlation	-.095	-.057	-.168	-.091	-.226	-.155	-.161	.582**	.163	1
	Sig. (2-tailed)	.435	.642	.165	.451	.060	.199	.184	.000	.178	
	N	70	70	70	70	70	70	70	70	70	70

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 1

The Table 1 presents Pearson correlation coefficients showing relationships among variables related to Green HRM practices, employee motivation, environmental performance, and demographic factors (age, gender, and years of experience).

Correlation values (r) range from -1 to +1, where:

- +1 = perfect positive correlation
- -1 = perfect negative correlation
- 0 = no correlation

Strong Positive Relationships among Green HRM Dimensions

Variables	Correlation (r)	Interpretation
GTD MOC	↔ 0.929**	Very strong positive correlation; as Green Training improves, organizational culture becomes more sustainability-oriented.
GTD GRS	↔ 0.922**	Strong positive link between training and recruitment based on green values.
GTD GPMA	↔ 0.933**	When training improves, green performance appraisal systems also strengthen.
GTD GRC	↔ 0.877**	Green training and reward systems grow together.
MOC EMP	↔ 0.920**	Supportive culture increases employee motivation.
GPMA EMP	↔ 0.944**	The strongest correlation; fair green appraisal practices highly boost motivation.
GRC EMP	↔ 0.929**	Rewards and motivation are strongly connected.

→ These results indicate Green HRM components are highly integrated — improvement in one area positively influences others.

3.1: Findings:

1. Strong Internal Relationships among GHRM Dimensions: GTD, MOC, GRS, GPMA, and GRC show very high inter-correlations ($r = 0.87$ – 0.94), indicating that hospitals are implementing green practices in an integrated rather than isolated manner.
2. Employee Motivation as a Central Factor: EMP has strong positive correlations with GTD (0.940), GPMA (0.944), GRC (0.929), and MOC (0.920). This shows that motivated employees are more likely to embrace and promote green HR initiatives.
3. Environmental Performance Moderately Linked: EP correlates positively but moderately ($r = 0.58$ – 0.66) with GHRM variables, suggesting that while internal HRM practices improve environmental outcomes, external factors (e.g., regulatory or infrastructural) may limit their overall effect.
4. Limited Role of Demographics: Age, gender, and years of experience display weak or negative correlations with GHRM dimensions, implying that demographic factors do not significantly influence engagement with green practices.
5. Age–Experience Correlation: A moderate correlation ($r = 0.582$) exists between age and years of experience, confirming that older employees typically possess more experience.

3.2: Discussion

The strong interrelationship among GHRM practices underscores the systemic nature of green HRM implementation. Hospitals that effectively invest in green recruitment, training, and appraisal systems tend to develop a robust organizational culture that supports sustainability. The positive relationship between employee motivation and green HR practices aligns with previous literature suggesting that employees who perceive strong organizational support for sustainability are more committed and proactive in eco-friendly behaviors.

The moderate association between environmental performance and GHRM indicates that while internal HR interventions can promote green awareness and behaviors, broader institutional support and infrastructural investments are required to achieve significant environmental outcomes. Furthermore, the weak influence of demographic variables suggests that green engagement is more dependent on organizational policies and leadership commitment than individual characteristics.

These findings highlight the potential for integrating green HR strategies as a long-term sustainable management approach in healthcare institutions, where both human and environmental well-being are paramount.

5. Conclusion

The study concludes that Green HRM practices play a vital role in shaping employee motivation and moderately enhancing environmental performance within the healthcare sector. The strong interlinkages among various GHRM dimensions emphasize the importance of adopting an integrated sustainability framework rather than isolated green initiatives. To strengthen environmental outcomes, hospitals should embed green values into their HR policies, promote training and awareness programs, and align reward systems with eco-friendly performance metrics.

Future research could expand the sample size, include public hospitals, and explore the mediating role of organizational leadership and employee engagement in fostering green workplace behavior.

6. Future Scope of Research

The current study lays a foundation by establishing strong correlations between GHRM practices and employee motivation, and a moderate link to environmental performance. Future research could strategically expand upon these findings in the following areas:

1. Expansion and Comparative Analysis

- Sample Expansion: Future studies should expand the sample size to enhance the generalizability of the findings beyond the 70 employees from the five multispecialty hospitals.
- Sector Comparison: Conduct comparative studies including public hospitals or other healthcare institutions (e.g., specialized clinics, diagnostic centers) to identify differences in GHRM adoption and effectiveness across various organizational structures.
- Cross-Cultural/Geographic Studies: Replicate the study in other metropolitan areas or different regions to assess the influence of varying local environmental regulations and cultural attitudes on GHRM effectiveness.

2. Exploring Mediating and Moderating Mechanisms

- Mediating Role of Leadership and Engagement: Formally explore the mediating role of organizational leadership and employee engagement in the GHRM-EP relationship. For instance, does leadership commitment amplify the effect of GHRM on motivation and performance?
- Psychological Mechanisms: Investigate the role of "psychological green climate" and "employee green values" as mediating factors between GHRM and employees' green behavior, drawing on existing literature.
- External Factors as Moderators: Analyze how external factors—such as stringent regulatory frameworks, governmental incentives, or community pressure—moderate the relationship between GHRM practices and Environmental Performance (EP).

3. Deep Dive into Specific GHRM Dimensions

- Specific GRC Efficacy: Conduct qualitative studies or mixed-methods research to determine the most effective types of Green Reward and Compensation (GRC)—financial vs. non-financial (e.g., recognition, certifications)—in driving sustained green behavior among hospital staff.
- Impact of Green Recruitment (GRS): Focus on the long-term impact of integrating environmental criteria in the Green Recruitment and Selection (GRS) process on employee retention and overall EP.
- Longitudinal Studies: Implement longitudinal research to track the long-term efficacy of GHRM interventions (e.g., a new green training program) on EP over several years, moving beyond cross-sectional correlation analysis.

7. Policy Recommendations

The study concludes that GHRM is a vital strategic tool for shaping employee motivation and moderately enhancing environmental performance. The following policy and strategic recommendations are proposed for private hospitals in Kolkata:

1. Integrated GHRM Strategy and Culture

- Systemic Integration: Hospitals must move beyond isolated green initiatives and adopt an integrated sustainability framework across all HR functions. Policy should mandate that GHRM components (GTD, GRS, GPMA, GRC, MOC) are mutually reinforcing.
- Embedding Green Values: Embed green values into all core HR policies, ensuring that sustainability is a non-negotiable part of the organizational DNA. Management and Organizational Culture (MOC) must proactively support environmental responsibility to strengthen employee motivation.

2. Enhancing Employee Motivation and Accountability

- Performance-Linked Accountability: Given the strong correlation between GPMA and Employee Motivation ($r = 0.944$), policies must require the inclusion of clear, measurable sustainability indicators in all employee performance appraisals (e.g., waste reduction targets, energy conservation efforts).
- Strategic Reward Alignment: Align reward systems with eco-friendly performance metrics. Introduce a mix of financial incentives and non-financial recognition (e.g., "Green Champion" awards, extra leave) to consistently motivate and retain environmentally conscious staff.

3. Targeted Training and Development

- Mandatory Green Training: Implement mandatory, continuous green training and awareness programs for all employees (administrative, clinical, and support staff). These programs should focus on practical skills in waste segregation, energy management, and sustainable resource use.

4. Addressing Environmental Performance Gaps

- **Infrastructural and Institutional Support:** Since Environmental Performance (EP) is only moderately linked to GHRM, hospital management must commit to broader institutional support and infrastructural investments (e.g., modern waste processing technology, renewable energy sources) to complement employee behavioral changes.
- **Leadership Commitment:** The top management must demonstrate visible and unwavering leadership commitment to sustainability to reinforce organizational policies and ensure employee engagement is driven by policy rather than individual demographics.

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