



Impact of green human resource management on sustainable performance in the healthcare sector in India – role of green innovation, risk management and social responsibility

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Abstract

In India's briskly growing healthcare sector, sustainability concerns have become increasingly prominent due to high waste generation, energy consumption, and resource-intensive operations. Green Human Resource Management (GHRM) has emerged as a purposeful approach for merging environmental awareness into HR policies and employee practices. This descriptive paper relies exclusively on secondary data from India to study how GHRM affects sustainable performance in Indian healthcare institutions. It synthesizes findings from Indian research studies, industry reports, and conceptual literature to explore the role of green innovation, risk management, and social responsibility in enhancing environmental and operational efficiency. The paper concludes that although Indian hospitals exhibit rising interest in GHRM, its implementation remains uneven, emphasizing the need for structured, India-specific frameworks.

Keywords: Green HRM India, Sustainable performance, Indian healthcare sector, Green innovation, Risk management, CSR

Introduction

Green HRM is a revolutionary approach to human resource management that aims to integrate environmental awareness and responsibility into all HR practices and processes. From recruitment to development and retention, it is a holistic approach that aims not only to minimize a company's environmental impact, but also to promote a sustainable working culture. The significance of Green HRM is obvious: both climate change and environmental degradation are serious global challenges, and Green HRM is also becoming increasingly important in the context of Corporate Social Responsibility (CSR). GI is an issue of great relevance for organizations as consumers are increasingly demanding measures from companies and institutions to reconcile this balance between production and environment sustainability.

Green Human Resource Management (GHRM) offers an opportunity for Indian healthcare organizations to incorporate environmental responsibility into HR processes such as training, recruitment, employee engagement, and performance evaluation. Indian studies emphasize that GHRM is progressively being observed as a means to lower ecological footprints, improve organizational reputation, and comply with regulatory frameworks such as the Biomedical Waste Management Rules (2016) and National Green Tribunal guidelines.

Green innovation is another developing trend in the Indian healthcare sector. Hospitals across India have begun embracing

energy-efficient devices, digital record systems, solar-powered infrastructure, and eco-friendly waste disposal technologies. Several Indian institutions such as AIIMS Delhi implemented a large scale ICT based energy management system to reduce energy consumption significantly, CII West Bengal aims to make hospitals plastic neutral. Simultaneously, risk management and social responsibility have gained importance in India due to public health risks, environmental penalties, and community expectations. As a result, many hospitals now incorporate environmental compliance training, emergency preparedness, and CSR-based health outreach. This paper uses only *India-specific secondary data* to describe how GHRM interacts with these factors to strengthen sustainable performance.

Recent trends

Green innovation

- Rapid adoption of on-site solar and energy efficiency upgrades- AIIMS recent deployment are installing rooftop solar and upgrading HVAC/lightning with centralized energy-management systems. These initiatives cut costs and reduce grid dependence.
- Increasing number of hospitals seeking green/LEED/GRIHA certifications designing green buildings such as water recycling, rainwater harvesting, green space etc.

Risk management - environment, patient safety

- Environmental Management Plans (EMPs) and stronger enforcement - EMPs covering pollution, generator emissions, sewage, waste segregation, and air quality monitoring.
- Integrated risk frameworks - Hospitals are trying to combine clinical risks, infection control, and environmental risk (waste, emissions, chemicals).

Corporate Social Responsibility (CSR) & ESG - integration into hospital strategy

- Large hospitals chains are publishing ESG/sustainability reports and treating sustainability as strategic (energy projects, community health, waste reduction, green procurement).
- CSR beyond charity – hospitals are linking CSR activities to health of general public by initiating various sanitation drives, awareness on waste segregation.

Literature review

GHRM practices positively affect sustainable performance through green innovation. It has meaningful directions for top managers and policy makers of healthcare organizations to develop a green innovation culture to mitigate the risk and boost sustainable performance, green innovation focused variable (Correia, A. B., (2024) ^[9]. The literature shows that the environment strategies play a significant role in the EP and act as a moderator in the relationship between GI and EP. The authors focused on three variables to investigate the relationship between GIC, GHRM and GI (Ullah, S., (2023) ^[10]. The Literature revealed that the introduction of SDGs and emphasis on sustainability has reinvigorated research interest in sustainable HRM and tremendous research being published post SDGs adoption (Anshima, A., (2024) ^[5]. GHRM practices were implemented at a moderate level, SP was achieved at a high level. Identification and prioritization of green practices were applied, where the most influential practices were 'green hiring' and 'green training and involvement'; the least influential green practice was 'green performance management and compensation' (P, S., (2023) ^[6]. GHRM practices are conducive to voluntary behaviors towards the environment at the collective level. GHRM Practices being positively associated with collective OCBs. (Pinzone, M., (2016) ^[7] The KSA health sector had not adopted most green performance management methods, green training & development activities, or green recruitment and selection procedures into its policies. This indicates that the healthcare institutions in KSA have not yet made sufficient financial commitments to the GHRM. The researchers have collected data from the Indonesian healthcare sector taking into consideration the three independent variables green hiring, green training and involvement, and green performance management and compensation. Among all the three the least Green Hiring has the least impact, Green Training and involvement has the

moderate outcome and green performance management and compensation cause a major influence. (Pinzone, M. (2016) ^[7]. In the past study the researchers affirmed that (a) SRHRM was positively associated with VGB; (b) green passion mediates the relation between SRHRM and VGB; (c) CSR attributions moderate the association between SRHRM and green passion and influence the indirect effect of SRHRM on VCB. (Pinzone, M., (2016) ^[7]. The findings indicate a modest adoption of GHRM in Odisha hospitals; recruiting and selection showed the highest association, while training and development showed the lowest (Das, S., & Dash, M. (2023) ^[12] Green human resource management, which has received a lot of attention in corporate organizations, may be used effectively to maintain green workplaces and green practices, which will help to green organizational culture. For businesses to achieve their environmental objectives, such as going green, green HRM is a crucial strategic tool. (Aggarwal, M., (2023) ^[13]. The most key practices known as "green recruitment" and "environmental training". Managers can turn hospital's culture into green and reduce environmental effects on the way of improving the healthcare system by the results (Alipour, N., (2019) ^[14].

Identified gaps in literature

A careful review of prior studies reveals following key gaps:

- There is no joint study on all the three parameters particularly in healthcare sector.
- The role of GHRM in promoting innovation-such as energy efficient technologies, digital health records, waste reduction innovations – remains underexplored.
- There are very few studies that show comparison of GHRM implementation and sustainability performance between government and private hospitals.

Research questions

- What is the impact of GHRM practices on sustainable performance in Indian healthcare institutions?
- How extensively are Indian hospitals adopting different components of GHRM?
- How do green innovation, risk management, and CSR shape GHRM outcomes in India?
- What India-specific framework can be proposed for strengthening GHRM adoption in the healthcare sector?

Significance of the study**1. Strengthening risk management**

The study aims to give directions to hospitals with practical directions such as building safer, more responsible, and regulation – compliant healthcare systems using human resource interventions.

2. Social responsibility

The study helps hospitals build their reputation, build community trust, and align with national goals such as the Sustainable Development Goals SDGs).

3. Contribution to promoting green innovations

This study examines how GHRM can drive innovation by recruiting environmentally conscious talent, encouraging idea generation, and rewarding eco-friendly solutions.

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Research methodology

This study adopts a descriptive and analytical research design with a mixed-method approach which is suitable for explaining current practices, patterns, and relationships among variables related to Green Human Resource Management, green innovation, risk management and social responsibility in the Indian healthcare sector. The study relies exclusively on secondary sources, allowing for a systematic examination of existing evidences, trends, and published findings within the domain of sustainable healthcare management.

Nature of Data: Secondary data collected from AIIMS reports, CSR reports, Ministry of health and Family welfare, NITI Aayog, Indian journal articles on healthcare sustainability.

Sampling frame: The studies are related to healthcare sector and reports containing measurable indicators of sustainability and HRM.

Limitations

This study is based on secondary data, hence the findings are limited to publicly available disclosures and do not capture internal organizational practices.

Summary of key findings

Area	Main finding
Green human resource management	Adoption increasing; green hiring and training most implemented
Green Innovation	Strongly supported by GHRM; improves efficiency and environmental performance
Risk Management	Improving but uneven; HR-led training enhances compliance
Social Responsibility	More hospitals adopting CSR-driven green programs
Sustainable Performance	Highest when all four pillars GHRM, innovation, risk management, CSR are integrated

Conclusion

The combined analysis of descriptive and secondary data suggests that sustainable performance improves significantly when GHRM, green innovation, risk management, and social responsibility are integrated into a unified strategy. Hospitals that align these elements achieve stronger environmental outcomes, greater efficiency, stronger regulatory compliance, and higher stakeholder trust. For Indian healthcare institutions

Findings and Discussion

Key Findings

1. Increasing adoption of GHRM in healthcare sector

Private and Public hospitals are gradually adopting green innovation parameters such as green recruitment, green training but the adoption shows still uneven but the inclination shows higher after 2020 due to regulatory pressure and awareness.

2. Strong link between GHRM and green innovation

Secondary data showed that organizations who have well trained staff are more responsible towards green innovation such as waste management techniques as compared to staff who have unstructured training.

3. Green innovation improves sustainable performance

Implementing green innovation such as energy saving techniques, waste management and implementation of digital workforce system positively contributes to the sustainable performance with improved and better service quality.

4. Risk management practices are expanding but still limited

Secondary sources such as government guidelines and hospital accreditation reports show that risk management in healthcare—especially environmental risk—is improving, but still insufficient in many institutions. Despite national rules on biomedical waste handling and environmental safety, gaps persist in compliance, monitoring, and staff awareness.

5. Growing emphasis on social responsibility in healthcare

CSR reports and most importantly public disclosures are helpful in growing emphasis on fulfilling responsibility and also awareness among individuals encourage hospitals to focus on community health programs, environmental safety etc. Social responsibility practices strengthen the internal culture of sustainability.

seeking long-term sustainability, embedding environmental values in HR systems and linking them with innovation, risk control, and CSR activities represents a comprehensive and effective way forward.

Limitations and future research

This study is based on secondary data; hence the insights are limited by the accuracy of public disclosures. Future research

should incorporate primary surveys or interviews with healthcare employees, hospitals.

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