



Green HRM: A powerful tool for sustainable competitive advantage in the IT sector

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Abstract

The growing global focus on sustainability has compelled organizations to integrate environmentally responsible practices into every business function. In the Information Technology (IT) sector—characterized by rapid innovation, high energy consumption, and extensive digital infrastructure—Green Human Resource Management (Green HRM) has emerged as a crucial enabler of sustainable performance. This paper explores how Green HRM functions as a strategic tool for achieving sustainable competitive advantage through the qualitative analysis of secondary data drawn from academic journals, corporate sustainability reports, and case studies of global IT companies. The study finds that Green HRM fosters pro-environmental employee behavior, enhances brand image, promotes innovation, and contributes to long-term competitiveness. The paper concludes that integrating Green HRM within the IT sector's strategic framework is not only beneficial for environmental management but also instrumental in creating distinctive organizational value.

Keywords: Green HRM, sustainable competitive advantage, IT sector, environmental management, organizational sustainability, employee engagement

Introduction

Sustainability has evolved from a peripheral concern to a core business imperative. The global shift toward green management has pushed organizations to adopt practices that balance economic performance with environmental and social responsibility. Human Resource Management (HRM) plays a central role in this transition by shaping employee attitudes, building a green organizational culture, and integrating sustainability into core business strategies.

Green Human Resource Management (Green HRM) is the integration of environmental management principles into HR practices such as recruitment, training, performance evaluation, and rewards. In the IT sector, Green HRM contributes to energy-efficient practices, e-waste management, telecommuting, and the development of a sustainability-driven workforce. Through the adoption of Green HRM, IT companies can gain a sustainable competitive advantage by enhancing employee commitment, reducing operational costs, and improving reputation.

This study employs secondary qualitative data analysis to examine how Green HRM acts as a strategic lever for sustainability and competitiveness in the IT industry. The study synthesizes insights from existing literature and corporate practices to provide a comprehensive understanding of the phenomenon.

Literature Review and Research Gap

1. Concept of Green HRM

Green HRM refers to HR policies and practices that encourage sustainable resource use and foster pro-environmental behavior among employees (Renwick *et al.*, 2013) [2]. Its main components include green recruitment, green training, green performance management, green rewards, and green involvement. By embedding environmental objectives into HR functions, Green HRM supports organizational transformation toward sustainability.

2. Green HRM in the IT Sector

The IT sector, while not as visibly polluting as manufacturing, contributes significantly to carbon emissions through energy use, data centers, and electronic waste. IT firms such as Infosys, Wipro, IBM, and TCS have initiated green recruitment policies, introduced sustainability-focused employee training, and adopted paperless HR systems. These initiatives demonstrate that IT firms can align HR practices with corporate environmental strategies to strengthen competitiveness.

3. Green HRM and Sustainable Competitive Advantage

According to the Resource-Based View (RBV) of the firm, sustainable competitive advantage arises from valuable, rare, inimitable, and non-substitutable resources (Barney, 1991) [1]. Green HRM contributes to this by developing a green-skilled, motivated, and innovative workforce that is difficult to replicate. The synergy between human capital and sustainability objectives enhances organizational innovation, reduces costs, and improves reputation—key sources of competitive advantage.

4. Research Gap

Although substantial literature links Green HRM to environmental performance, fewer studies address its impact on sustainable competitive advantage, particularly in the IT sector. Most prior studies are quantitative, focusing on employee attitudes or organizational outcomes in isolation. There is limited qualitative synthesis of secondary data that examines how Green HRM collectively drives long-term strategic advantage in IT organizations. This study fills that gap by integrating diverse secondary data sources to provide a holistic view.

Research Methodology

1. Research Design

This study adopts a qualitative research design based on secondary data analysis. The objective is to explore and interpret existing information related to Green HRM and its influence on sustainable competitive advantage within the IT sector.

2. Data Sources

Secondary data were collected from:

- Peer-reviewed academic journals (e.g., Journal of Cleaner Production, International Journal of Human Resource Management, Sustainability)
- Corporate sustainability reports of IT companies (Infosys, IBM, TCS, Wipro, Accenture)
- Industry white papers and conference proceedings
- Government and NGO reports on sustainable business practices in IT

3. Data Analysis

A thematic content analysis was conducted. Data from various sources were coded under key themes such as “green recruitment,” “green training,” “employee engagement,” “organizational innovation,” and “competitive advantage.” Patterns were identified to explain how Green HRM practices contribute to sustainable competitiveness. Cross-validation among multiple sources ensured reliability and credibility.

Analysis and Findings

1. Green HRM Practices in IT Firms

Secondary data reveal that leading IT firms implement multiple Green HRM initiatives:

- **Green Recruitment:** Hiring candidates with environmental awareness or prior sustainability experience.
- **Green Training:** Training programs focused on energy conservation, digital sustainability, and eco-friendly workplace practices.
- **Green Performance Management:** Incorporating environmental targets into Key Performance Indicators (KPIs).
- **Green Rewards:** Recognition programs and incentives for sustainable behavior, such as reducing carbon footprints.
- **Employee Involvement:** Formation of “Green Teams” and volunteering for environmental causes.

2. Link Between Green HRM and Organizational Outcomes

Analysis of sustainability reports and prior studies indicates that Green HRM enhances:

- **Employee Engagement:** Employees involved in green initiatives demonstrate higher job satisfaction and loyalty.
- **Operational Efficiency:** Digital documentation, remote work policies, and energy-saving practices reduce costs.
- **Corporate Image:** Green HRM strengthens employer branding and corporate reputation.

- **Innovation:** Sustainability challenges stimulate creative problem-solving and innovation in IT solutions.
- **Long-term Competitiveness:** Firms gain sustained differentiation through unique green culture and capabilities.

3. Challenges in Implementation

The qualitative data also identify challenges:

- Limited awareness and training on sustainability.
- Lack of top management commitment in smaller IT firms.
- Absence of clear performance metrics for Green HRM outcomes.
- Short-term focus on cost reduction over long-term environmental gains.

Suggestions and Managerial Implications

1. **Integrate Sustainability into HR Policy:** Embed environmental goals in HR manuals, job descriptions, and performance appraisals.
2. **Leadership Commitment:** Top management should champion Green HRM as a strategic initiative, not an optional CSR activity.
3. **Capacity Building:** Regular training programs to develop green competencies across all employee levels.
4. **Measurement Systems:** Develop KPIs to track the impact of Green HRM on organizational performance and competitiveness.
5. **Leverage Technology:** Promote virtual collaboration, cloud computing, and paperless processes to support environmental goals.
6. **Sustainability Culture:** Encourage open communication, employee involvement, and recognition to embed a lasting green culture.

Conclusion

This qualitative study underscores that Green HRM is not merely an ethical or compliance-driven initiative but a strategic enabler of sustainable competitive advantage in the IT sector. By aligning HR functions with sustainability goals, organizations can enhance innovation, reputation, and efficiency. Secondary data evidence shows that firms adopting integrated Green HRM frameworks outperform others in terms of stakeholder trust and long-term viability. The study concludes that the IT sector must institutionalize Green HRM as part of its strategic fabric to maintain global competitiveness in an increasingly sustainability-conscious world.

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