

## Advancing Environmental Responsibility through Green Human Resource Management in IT Companies

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### Abstract

Green Human Resource Management (GHRM) is an innovative approach that utilizes human resource management policies to promote the sustainable use of resources within business organisations. The primary objective of this approach is to ensure the optimal utilization of resources while promoting environmental sustainability. In large corporations, where human resource departments actively participate in going green at work, GHRM has emerged as a critical business strategy. The main goals of the green HR strategy are to retain top talent and reduce individual employee carbon footprints. This research delves into the role of GHRM practices in the Information Technology (IT) companies in Chennai. The researcher conducted a survey using a structured questionnaire to collect data from the respondents. The researcher employed simple random sampling for companies and convenience sampling for employees. The article concludes with an analysis of the study's implications and suggestions. The study provides valuable insights into the use of GHRM practices in the IT Companies. By incorporating GHRM practices in their operations, companies can achieve their sustainability goals while retaining top talent.

**Keywords:** GHRM, Green HRM, Green HRM Practices, Green Environment, Sustainability, Green Initiatives

### Introduction

Environmental awareness and knowledge alone cannot serve as a panacea for safeguarding the environment and averting future perils. The present economic scenario necessitates the cultivation of a strong conscience and a sense of environmental responsibility to cater to people's needs and desires. Informed decision-making in the business world presently entails considerations such as efficiency, electricity consumption, and the incorporation of green HR policies and practices. To tackle environmental issues, green human resource management has emerged as a crucial contributor in every industry, with the adoption of green HR policies and practices, in addition to training and awareness programs for employees.

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GHRM is a HRM approach that IT companies widely adopt. It focuses on achieving environmental sustainability by implementing organization-wide practices, policies, and approaches. The IT industry has a considerable environmental impact owing to its energy-intensive operations and global supply chains. GHRM can assist IT companies in reducing their environmental footprint by focusing on energy efficiency, resource utilization, waste management, and employee engagement. Additionally, companies can employ GHRM to promote environmental responsibility and cultivate sustainable practices, while employees can gain opportunities to learn and develop new skills. GHRM can enable IT companies to become more sustainable and enhance their competitive advantage by providing cost savings and improved operational efficiency.

### **Green HR Practices:**

**Recruitment and Selection:** One of the most critical aspects of green human resource practices is creating a corporate environmental culture among new hires. It is essential to invest substantial effort in this during the induction process. New employees should be introduced to the company's environmental values and goals, and the benefits of adopting environmentally friendly practices.

**Training and Development:** Employee training and development programs should cover social and environmental issues. In particular, green orientation seminars should be conducted for newly hired staff to educate them about the company's green procedures, policies, and vision/mission statement. Staff members should be trained to identify ways they can contribute to environmental sustainability, such as reducing energy consumption and minimizing waste. Green teams can also be established in each department to provide education and training on green human resource management.

**Performance Management System:** Green human resource management emphasizes measuring environmental performance standards and indicators to collect meaningful data. In addition, managers' environmental performance should be evaluated, and feedback should be provided. To achieve this, an electronic HR system can be implemented, such as e-HR management, which allows staff members to monitor their carbon emissions and make informed decisions about their energy use.

**Pay and Reward:** Financial incentives can be an effective way to encourage employees to adopt greener behaviour. The management can offer compensation as part of the benefits package to employees who meet environmental performance standards. In addition, staff incentive programs can be developed to encourage appropriate environmental performance behaviour. These programs should be designed to encourage long-term behaviour change and should be supported by ongoing training and development initiatives.

### **Review of literature**

In the ever-evolving landscape of corporate responsibility, a growing focus on environmental sustainability has begun to shape the strategies and policies of various organizations, particularly within the realms of Human Resource Management (HRM). A

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seminal study by **Carter and Dresner (2001)** highlighted the pivotal role of an organization's reward and pay policies in promoting environmental consciousness among employees. The study underscored how intrinsic and extrinsic benefits could nurture a commitment to environmental friendliness, with HR activities like performance management and compensation playing a crucial part.

Building on this foundation, **Mankotia, Shambhu, and Tiwari (2011)** delved into the IT sector, investigating the importance IT companies placed on adopting green practices. Their study revealed a rising awareness among IT employees regarding environmental sustainability, signalling a shift in attitudes within the industry. This trend was not confined to the IT sector alone; **Pooja Popli (2014)** shed light on the efforts of businesses in Nasik to embrace the concept of "Green HRM." While many organizations were familiar with the concept, there remained a gap between awareness and implementation, with some struggling to integrate eco-friendly practices into their HR functions effectively.

A significant leap in this arena was marked by **Parida et al. (2015)**, who explored the GHRM practices in IT enterprises. Their findings illuminated a plethora of sustainable strategies, from reducing paper usage and encouraging carpooling to embracing online job applications and video conferencing for interviews. Crucially, employees exhibited a sense of responsibility towards these initiatives, signifying a harmonious integration of environmental concerns into the organizational culture. HR managers attested to the positive impact of GHRM policies, which not only fostered environmental sustainability but also augmented the companies' profit shares.

However, the landscape was not without challenges, as revealed by **Pavitra Mishra (2017)** While some organizations in the Indian manufacturing sector engaged in GHRM practices, formal organization and strict adherence were lacking. The study highlighted a deficiency in structured environmental training and pointed out that recruitment and selection primarily occurred through social media and online portals, missing specific evaluation criteria related to green behaviours.

In essence, these studies paint a comprehensive picture of the journey toward integrating GHRM practices into the corporate fabric. While strides have been made, challenges persist, necessitating a more structured approach. The collective findings emphasize the importance of not only raising awareness but also formalizing and integrating eco-friendly initiatives into the core of HRM practices. As organizations navigate this path, the synergy between environmental sustainability and HRM stands as a testament to the evolving responsibilities of businesses in the face of global environmental challenges.

## Research Methodology

### Objectives

The aim of this study is

- To investigate the GHRM strategies implemented by organizations located in the RMZ Millenia Business Park, situated in Perungudi, Chennai.

- To explore the various HRM practices that organizations adopt to promote environmentally sustainable practices in the workplace.

### Sampling Size

RMZ Millenia Business Park consists of 17 companies out of which 5 companies have been taken by the researcher through simple random sampling. The data for the present study was collected from a sample of 120 employees. The researcher used convenience sampling to select employees from these 5 companies.

### Research Design

The present study utilised a descriptive research approach to address the research problem. Factor Analysis was conducted to identify underlying dimensions grouping similar GHRM Initiatives. Principal Component Analysis was applied, and factors were rotated using Varimax rotation to enhance interpretability. The researcher employed the Friedman test, a non-parametric statistical method, for conducting a one-way repeated measures analysis of variance by ranks. This statistical method is used to test for differences in multiple related groups, where the data are measured on an ordinal scale.

### Data Collection:

In the present study, the primary data was collected from professionals from IT companies through structured questionnaires. Secondary data was also collected through web links, books, journals, and magazines.

### Data Analysis and Interpretation

#### Demographic characteristics of the respondents

The study analysed the demographic characteristics of the participants, which included variables such as age, gender, marital status, educational attainment, and work experience. The purpose of this analysis was to gain insight into the overall demographic profile of the employees at Ratha Group, Tek Meadows located in Sholinganallur, Chennai.

**Table 1** Demographic Profile

Category	Subdivision	Frequency	Percentage
Gender	Male	85	70.8
	Female	35	29.2
Age	20-29yrs	26	21.7
	30-39yrs	70	58.3
	40-49yrs	21	17.5
	Above 49yrs	3	2.5
Educational Qualification	UG	101	84.2
	PG	19	15.8

Work Experience	1 to 3yrs	32	18.4
	4 to 6yrs	60	58.3
	7 to 9yrs	19	15.8
	Above 9yrs	9	7.5
Monthly Income	Up to ₹50,000	22	18.3
	₹50,001 to ₹1,50,000	80	66.7
	₹1,50,001 to ₹ 3,00,000	14	11.7
	Above ₹3,00,000	4	3.3
Marital Status	Married	94	78.3
	Unmarried	26	21.7

$n=120$ , Source: Survey Data

The data in Table 1 presents the demographic characteristics of the study participants. The majority of the respondents, 70.8%, were male. The largest age group was 30-39 years old, accounting for 58.3% of the respondents. In terms of education, 84.2% of the respondents were undergraduates. Regarding work experience, 58.3% of the respondents reported having 4 to 6 years of experience. The majority of respondents, 66.7%, earned an income between ₹50,001 to ₹1,50,000.

### KMO and Bartlett's Test

TABLE 2 shows the KMO and Bartlett's Test

Methods		Principle Component Analysis
Number of Variables selected		12
Number of Iterations/Number of Factors Extracted		4
Rotation/ Normalization		Varimax/ Kaiser
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.876
Bartlett's Test of Sphericity	Approx Chi-Square	3652.701
	Degree of Freedom	151
	Significant value	.000

Source: Computed Data

The above table represents the outcomes of a Principal Component Analysis (PCA) conducted on a dataset of 12 variables. Using Varimax rotation and Kaiser normalization, the analysis extracted 4 factors, aiming to simplify data interpretation. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy indicated good sampling suitability (0.876). Bartlett's Test of Sphericity showed significant correlations between variables (Approx Chi-Square = 3652.701,  $df = 151$ ,  $p = .000$ ), justifying the use of PCA and validating the selected variables for the analysis

TABLE 3 Represents the pattern of correlations within a set of observed variables.

Factors	Statements	Components				Rotation sum of squared loadings		
		1	2	3	4	Total	% of Variance	Cumulative %
Environmental Awareness and Training	Organisation provides regular training sessions to employees on environmental sustainability and green practices.	.882	.096	.128	.091	2.762	15.354	15.354
	Awareness programs are conducted within the organization to educate employees about the environmental impact of their work.	.834	.132	.155	.064			
	Organisation provides resources and materials to keep employees informed about the latest developments in green technologies and sustainable practices.	.713	.151	.117	.143			
Green Technology Adoption	Organisation actively invests in and utilizes energy-efficient technologies and equipment to reduce our carbon footprint.	.085	.875	.139	.164	2.659	14.810	30.146
	Implemented virtualization and cloud computing solutions to optimize server usage and minimize energy consumption.	.126	.842	.214	.193			
	organization encourages the use of electronic documentation and communication to reduce paper waste.	.178	.764	.272	.163			
Sustainable Work Environment and Practices	Flexible work schedules and remote work options are encouraged to reduce commuting-related carbon emissions.	.140	.214	.820	.108	2.345	13.089	43.246
	Recycling bins and waste reduction initiatives are prominent throughout the workplace, promoting responsible waste management	.289	.223	.763	.207			
	office spaces are designed to maximize natural light, reducing the need for artificial lighting during daylight hours.		.228	.742	.198			
Leadership	Senior leaders in the company actively promote and supports green initiatives within the		.157	.149	.828	2.293	12.349	55.407

organization.							
company's mission and values emphasize environmental responsibility and sustainability.		.138	.267	.812			
Green HRM goals and achievements are regularly communicated to employees, reinforcing their importance.		.865	.169	.134			

Source: Survey Data

### Factor 1: Environmental Awareness and Training:

This element highlights the significance of educating staff members on environmental sustainability and green practices. The company conducts frequent training sessions for employees, with the most substantial loading (0.882) on factor 1. Additionally, the organization implements awareness programs to educate employees on the environmental impact of their work, which also has a substantial loading (0.834) on factor 1.

### Factor 2: Green Technology Adoption:

This particular aspect revolves around the adoption of energy-efficient technologies and practices. Our organization takes an active role in investing and utilizing energy-efficient technologies and equipment to reduce our carbon footprint, which holds the highest level of importance (0.875). Additionally, the implementation of virtualization and cloud computing solutions to optimize server usage and minimize energy consumption also holds a significant level of importance (0.842).

### Factor 3: Sustainable Work Environment and Practices:

This feature emphasizes strategies that foster a sustainable workplace. Prioritizing flexible work hours and remote work opportunities to decrease carbon emissions from commuting receives the most significant weight (0.820). Additionally, the workplace prominently features recycling receptacles and waste reduction programs that promote responsible waste management, with a high loading score of (0.763).

### Factor 4: Leadership and Organizational Commitment:

This aspect concerns the dedication and endorsement of top-level executives. The active promotion and support of green initiatives by senior leaders in the organization carry the greatest weight (0.828), while the highest loading (0.812) is attributed to the company's values and mission that prioritize environmental responsibility and sustainability.

### Findings

According to our analysis, the "Sustainable Work Environment and Practices" component holds the highest total sum of squared loadings, indicating its crucial role in GHRM strategies for IT companies. Effective leadership and organizational commitment are key factors that contribute to successful GHRM strategies. Senior leaders must support green initiatives and integrate green values into the company's mission. Providing training programs and resources to educate employees is also essential in promoting GHRM efforts. In addition, embracing green technologies such as energy-efficient equipment and virtualization can significantly reduce the environmental impact of IT companies. Creating a

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sustainable work environment through flexible schedules, waste reduction, and maximizing natural light is also crucial in promoting green practices.

In summary, the table underscores the multifaceted nature of Sustainable Green Human Resource Management in IT companies. Successful SGHRM strategies require a combination of employee education, technological adoption, commitment from leadership, and the creation of a sustainable work environment.

### Recommendation

- Foster a culture of continuous learning by providing resources and materials that keep employees informed about the latest developments in green technologies and sustainable practices.
- Implement virtualization and cloud computing solutions to optimize server usage, minimize energy consumption, and reduce the need for physical hardware.
- Promote flexible work schedules, remote work options, and telecommuting to reduce commuting-related carbon emissions.
- Participate in industry-specific environmental initiatives and certifications to demonstrate the organization's commitment to sustainability.
- Conduct periodic assessments and audits to identify areas for improvement and track progress in achieving environmental sustainability goals.

### Conclusion

In today's world, the topic of sustainability is gaining momentum, and IT companies are no exception. The study has highlighted the importance of adopting sustainable strategies for IT companies to minimize their environmental impact. The study suggests that by educating employees, adopting eco-friendly technologies, and encouraging green workplace practices, organizations can drastically reduce their carbon footprint. Strong leadership support and transparent communication are also key factors in creating a sustainable workplace culture.

By embracing these sustainable practices, not only do companies benefit the environment, but they also enhance their reputation and future viability. As businesses continue to evolve, the integration of these sustainable approaches is no longer just an option; it is a necessity for a greener, more responsible future.

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