Green Human Resource Management Initiatives in the Banking Sector: A Study with Special Reference to State Bank of India (SBI) Branches in Haveri District

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Abstract

The concept of Green Human Resource Management (Green HRM) has emerged as a pivotal strategy for organisations striving to integrate environmental sustainability into their core business functions. The banking sector, despite being a service industry, has a significant ecological footprint through excessive paper consumption, high energy usage, carbon emissions from commuting, and waste generation. This study examines the Green HRM initiatives within the banking sector, with special reference to the State Bank of India (SBI) branches operating across Haveri District, Karnataka.

A structured questionnaire-based survey was administered to 120 employees across 12 SBI branches in Haveri district. The study analyses six Green HRM dimensions: green recruitment and selection, green training and development, green performance management, green compensation and benefits, green employee relations, and employee environmental awareness. Statistical tools including descriptive statistics, Cronbach's Alpha reliability analysis, independent samples t-test, one-way ANOVA, Pearson correlation, chi-square test, and multiple regression analysis were employed. Results indicate a moderate-to-high level of Green HRM adoption (overall mean = 3.80/5.00). Employee Environmental Awareness (μ = 4.02) and Green Training & Development (μ = 3.91) emerged as the highest-rated dimensions. Designation-wise significant differences (F = 12.847, p < 0.001) and strong inter-dimensional correlations confirm that Green HRM practices are interrelated and hierarchically influenced. Regression analysis reveals that Green Training & Development (β = 0.312) and Green Recruitment & Selection (β = 0.231) are the strongest predictors of overall Green HRM effectiveness. The study concludes with strategic recommendations to strengthen Green HRM implementation in public sector banking.

Keywords: Green HRM, Sustainable Banking, SBI Haveri District, Environmental Management, Green Training, Green Recruitment, Eco-friendly HR Practices

1. Introduction

The global discourse on environmental sustainability has progressively permeated the realm of human resource management, giving rise to the concept of Green Human Resource Management (Green HRM). Green HRM refers to the use of HRM policies, practices, and systems that promote the sustainable utilisation of resources, support the cause of environmentalism, and foster employee green behaviour within the organisation (Renwick, Redman, & Maguire, 2013). It represents the nexus between conventional HRM practices and corporate environmental responsibility.

The banking and financial services sector, although classified as a service industry, contributes substantially to environmental degradation through large-scale paper and energy consumption, carbon emissions from employee commuting and business travel, and the indirect environmental impact of the businesses it finances. The State Bank of India (SBI), as the largest public-sector bank in India with a nationwide network exceeding 22,000 branches, bears a considerable environmental responsibility. SBI has made notable strides in sustainability through its Green Banking Policy, digital transformation initiatives, and carbon footprint reduction programmes.

Haveri district, located in the northern part of Karnataka, is a Tier-III region witnessing rapid banking expansion. SBI maintains a robust presence across Haveri, Ranebennur, Savanur, Byadagi, Shiggaon, and Hanagal talukas. Given the increasing emphasis on corporate sustainability and RBI's green banking guidelines, studying the implementation and significance of Green HRM practices in SBI's Haveri branches offers valuable localised insights into how national sustainability mandates translate into ground-level HR practices.

This research aims to provide a comprehensive empirical investigation using appropriate statistical tools, thereby contributing to both academic literature and practical policy-making in the domain of Green HRM in public sector banking.

2. Review of Literature

The academic foundation of Green HRM has been built upon contributions from several scholars across the globe. Renwick et al. (2013) provided one of the earliest comprehensive frameworks for Green HRM, arguing that organisations must integrate environmental management into all aspects of HRM — from recruitment through to employee exit. They identified three key roles for HR managers: ability-building, motivation-enhancing, and opportunity-providing.

Ahmad (2015) demonstrated that green HRM practices significantly improve employee ecological behaviour and organisational environmental performance. The study stressed the need for green induction, eco-friendly training, and incentive structures aligned with sustainability goals. Jabbour (2013) highlighted the mediating role of green training in connecting HRM and environmental performance in Brazilian manufacturing firms.

In the Indian banking context, Mishra (2017) examined sustainability disclosures of major Indian banks and found that while macro-level green commitments existed, employee-level Green HRM practices remained nascent. Tiwari and Srivastava (2020) studied Green HRM adoption among SBI and HDFC employees, revealing that awareness was higher among senior managers and urban branches compared to rural counterparts.

Bhattacharya et al. (2020) found that green performance appraisal systems serve as a critical driver for embedding environmental norms into employee behaviour, particularly when linked to compensation and promotion decisions. Mehta and Chugan (2015) emphasised that green recruitment — the selection of candidates with demonstrated environmental values — is an underutilised but powerful lever for building a sustainable workforce.

Studies specifically addressing rural or Tier-III banking contexts in Karnataka are sparse, representing a clear research gap. This study addresses that gap by focusing on SBI branches in Haveri district, providing contextually grounded empirical data.

3. Objectives of the Study

- To assess the level of awareness and implementation of Green HRM practices among SBI employees in Haveri district.

- To examine the demographic differences (gender, designation, experience) in perception of Green HRM initiatives.

- To study the inter-relationships among the six dimensions of Green HRM.

- To identify the significant predictors of overall Green HRM effectiveness using regression analysis.

- To offer evidence-based recommendations to strengthen Green HRM adoption in SBI, Haveri district.

4. Research Hypotheses

H_{01}: There is no significant difference in the perception of Green HRM practices based on the gender of SBI employees in Haveri district.

H_{02}: There is no significant difference in the perception of Green HRM practices based on the designation (cadre) of SBI employees in Haveri district.

H_{03}: There is no significant association between employee designation and their level of awareness about Green HRM initiatives.

H_{04}: There is no significant correlation among the various dimensions of Green HRM.

H_{05}: The dimensions of Green HRM do not significantly predict overall Green HRM effectiveness.

5. Research Methodology

5.1 Research Design

This study adopts a descriptive and analytical research design. A cross-sectional survey method was employed to collect primary data from SBI employees in Haveri district.

5.2 Study Area and Population

The study was conducted across 12 SBI branches spread over six talukas of Haveri district — Haveri (Main Branch & City Branch), Ranebennur, Savanur, Byadagi, Shiggaon, Hanagal, Hirekerur, Rattihalli, and Bankapur. The total employee strength across these branches constitutes the study population.

5.3 Sample Size and Sampling Technique

A sample of 120 employees was selected using stratified random sampling, stratified by designation: Clerks/Assistants (38), Officers Scale I–III (52), and Senior Managers/Branch Managers (30). The sample size was determined using Yamane's (1967) simplified formula, yielding a minimum required sample of 107 at a 95% confidence level with ±9% margin of error.

5.4 Research Instrument

A structured questionnaire was developed comprising two sections: (i) demographic profile (5 items), and (ii) Green HRM perception scale (27 items across 6 dimensions, measured on a 5-point Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire was pilot-tested on 20 employees, and necessary refinements were made.

5.5 Statistical Tools Used

- •   Descriptive Statistics (Mean, Standard Deviation, Frequency, Percentage) — to profile the sample and summarise responses.
- •   Cronbach's Alpha — to test internal consistency reliability of the measurement scale.
- •   Independent Samples t-Test — to test gender-based differences in Green HRM perception.
- •   One-Way ANOVA — to test designation-wise differences in Green HRM perception.
- •   Chi-Square Test — to examine association between employee designation and awareness level.
- •   Pearson Correlation Analysis — to explore inter-relationships among Green HRM dimensions.
- •   Multiple Linear Regression — to identify significant predictors of overall Green HRM effectiveness.

All analyses were performed using SPSS (Version 26). The significance level was set at $\alpha = 0.05$. (*) denotes statistical significance at $p < 0.05$.

6. Data Analysis and Interpretation

6.1 Demographic Profile of Respondents

Table 1 presents the demographic profile of the 120 SBI employees surveyed across Haveri district. Male respondents constituted 60% of the sample. The majority of respondents (38.3%) fell in the 30–40 years age group, reflecting a relatively young workforce. Officers (Scale I–III) formed the largest category (43.3%). In terms of experience, the 11–20 years group was the largest (33.3%), indicating a seasoned workforce. Educational qualifications were predominantly graduate (46.7%) and post-graduate (43.3%).

Table 1: Demographic Profile of Respondents (n = 120)

Variable	Category	Frequency	Percentage (%)
Gender	Male	72	60.0
	Female	48	40.0
Age Group	Below 30 years	24	20.0
	30–40 years	46	38.3
	41–50 years	34	28.3
	Above 50 years	16	13.4
Designation	Clerk / Assistant	38	31.7
	Officer (Scale I–III)	52	43.3
	Senior Manager & above	30	25.0
Experience	Less than 5 years	22	18.3
	5–10 years	36	30.0
	11–20 years	40	33.3
	Above 20 years	22	18.4
Education	Graduate	56	46.7
	Post Graduate	52	43.3
	Professional Degree	12	10.0
Total		**120**	**100.0**

Source: primary survey

6.2 Descriptive Statistics of Green HRM Dimensions

Table 2 summarises the mean scores and standard deviations for each of the six Green HRM dimensions. Employee Environmental Awareness recorded the highest mean (μ = 4.02), indicating that SBI employees in Haveri district are relatively conscious of environmental issues. Green Training & Development ranked second (μ = 3.91), suggesting reasonable satisfaction with eco-training initiatives. Green Compensation & Benefits scored the lowest (μ = 3.59), pointing to a gap in the incentivisation of green behaviour. The overall Green HRM index mean of 3.80 reflects a moderate-to-good level of implementation.

Table 2: Descriptive Statistics of Green HRM Dimensions

Green HRM Dimension	Mean	Std. Dev.	Min	Max
Green Recruitment & Selection	3.84	0.72	2	5
Green Training & Development	3.91	0.68	2	5
Green Performance Management	3.76	0.81	1	5
Green Compensation & Benefits	3.59	0.79	1	5
Green Employee Relations	3.68	0.74	2	5
Employee Environmental Awareness	4.02	0.64	2	5
Overall Green HRM Index	**3.80**	**0.73**	—	—

Source: primary survey

6.3 Reliability Analysis (Cronbach's Alpha)

Table 3 presents the results of Cronbach's Alpha reliability test for each construct. All dimensions yielded alpha values above 0.70, satisfying the commonly accepted threshold (Nunnally, 1978). The overall scale achieved an excellent reliability coefficient of 0.903, confirming strong internal consistency. These results validate the suitability of the instrument for further inferential analysis.

Table 3: Reliability Analysis — Cronbach's Alpha

Construct	No. of Items	Cronbach's α	Reliability Status
Green Recruitment & Selection	5	0.812	Good
Green Training & Development	5	0.839	Good
Green Performance Management	4	0.798	Acceptable
Green Compensation & Benefits	4	0.774	Acceptable
Green Employee Relations	4	0.806	Good
Employee Environmental Awareness	5	0.855	Good
Overall Scale	**27**	**0.903**	**Excellent**

6.4 One-Way ANOVA — Designation-Wise Differences

To test H_{02}, a one-way ANOVA was conducted to examine whether designation (cadre) influenced the overall perception of Green HRM practices. As presented in Table 4, the F-ratio was statistically significant (F = 12.847, p = 0.000 < 0.05). Therefore, H_{02} is rejected, confirming that there are significant differences in the perception of Green HRM practices based on employee designation. Post-hoc Tukey's HSD test revealed significant mean differences between Clerks and Senior Managers (p < 0.001), and between Officers and Clerks (p < 0.05), while the difference between Officers and Senior Managers was not statistically significant (p = 0.412). Senior managers demonstrated the most positive perception of Green HRM, which may be attributable to greater policy awareness and involvement in strategic decision-making.

Table 4: One-Way ANOVA — Green HRM Perception by Designation

Source	Sum of Squares	df	Mean Square	F-Value	Sig.
Between Groups	14.286	2	7.143	12.847	0.000*
Within Groups	64.897	117	0.556	—	—
Total	**79.183**	**119**	—	—	—

* Significant at p < 0.05

6.5 Independent Samples t-Test — Gender-Wise Differences

Table 5 presents the results of the independent samples t-test examining gender-based differences across each Green HRM dimension and the overall score. Although male respondents reported marginally higher mean scores across most dimensions, none of the t-values were statistically significant at the 0.05 level. The overall Green HRM score for males (μ = 3.88) was marginally higher than for females (μ = 3.73), but the difference (t = 1.254, p = 0.212) is not significant. Therefore, H_{01} is retained — gender does not significantly influence Green HRM perception among SBI employees in Haveri district.

Table 5: Independent Samples t-Test — Gender-Wise Green HRM Perception

Green HRM Dimension	Male Mean	Female Mean	t-Value	df	Sig. (2-tailed)
Green Recruitment & Selection	3.91	3.73	1.472	118	0.143
Green Training & Development	3.98	3.81	1.532	118	0.128
Green Performance Management	3.82	3.65	1.264	118	0.208
Green Compensation & Benefits	3.62	3.54	0.604	118	0.547
Employee Environmental Awareness	4.09	3.91	1.703	118	0.091
Overall Green HRM	**3.88**	**3.73**	**1.254**	118	0.212

* Significant at p < 0.05; ns = not significant

6.6 Pearson Correlation Analysis

Table 6 presents the Pearson correlation matrix for the six Green HRM dimensions. All inter-dimensional correlations are positive and statistically significant at the 0.01 level (**), demonstrating that the dimensions are meaningfully interrelated. The strongest correlations were observed between Green Training & Development and Employee Environmental Awareness (r = 0.728), and between Green Recruitment & Selection and Green Training & Development (r = 0.682). H_{04} is therefore rejected. These positive correlations suggest that strengthening any one Green HRM dimension tends to reinforce improvements in others, supporting a systemic approach to Green HRM implementation.

Table 6: Pearson Correlation Matrix of Green HRM Dimensions

Dimension	GRS	GTD	GPM	GCB	GER	EEA
Green Recruitment & Sel. (GRS)	1.000	0.682**	0.591**	0.524**	0.567**	0.612**
Green Training & Dev. (GTD)	—	1.000	0.634**	0.548**	0.603**	0.728**
Green Perf. Mgmt. (GPM)	—	—	1.000	0.612**	0.579**	0.645**
Green Compensation (GCB)	—	—	—	1.000	0.534**	0.576**
Green Employee Rel. (GER)	—	—	—	—	1.000	0.619**
Emp. Environ. Awareness (EEA)	—	—	—	—	—	**1.000**

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

6.7 Chi-Square Test — Awareness Level by Designation

A chi-square test was employed to examine the association between employee designation and their level of awareness about Green HRM initiatives. Respondents were classified into three awareness levels based on their composite awareness sub-scale scores. As shown in Table 7, the chi-square value ($\chi^2 = 18.463$, df = 4, p = 0.001) is statistically significant, leading to the rejection of H_{03}. The cross-tabulation reveals a clear gradient: Senior Managers recorded the highest proportion of high awareness (66.6%), while Clerks/Assistants reported the highest proportion of low awareness (36.8%). This finding reinforces the ANOVA results, suggesting that Green HRM awareness and perception are strongly linked to organisational hierarchy in the context of SBI, Haveri district.

Table 7: Chi-Square Test — Green HRM Awareness Level by Designation

Level of Awareness	Clerk / Asst. (n=38)	Officer (n=52)	Sr. Mgr. (n=30)	Total (n=120)
Low (Score 1–2)	14 (36.8%)	8 (15.4%)	2 (6.7%)	24 (20.0%)
Moderate (Score 3)	16 (42.1%)	22 (42.3%)	8 (26.7%)	46 (38.3%)
High (Score 4–5)	8 (21.1%)	22 (42.3%)	20 (66.6%)	50 (41.7%)
$\chi^2 = 18.463$ df = 4 p = 0.001*				

* Significant at p < 0.05

6.8 Multiple Regression Analysis

To identify the significant predictors of overall Green HRM effectiveness and test H_{05}, a multiple linear regression was performed with the five Green HRM practice dimensions as independent variables and Employee Environmental Awareness (the outcome dimension) as the dependent variable. Table 8 presents the regression coefficients. The model was statistically significant (F = 36.842, p = 0.000) with an Adjusted R^2 of 0.598, indicating that approximately 59.8% of the variance in Employee Environmental Awareness is explained by the five Green HRM practice dimensions.

Among the predictors, Green Training & Development ($\beta = 0.312$, p = 0.000) emerged as the strongest predictor, followed by Green Recruitment & Selection ($\beta = 0.231$, p = 0.002) and Green Performance Management ($\beta = 0.196$, p = 0.014). Green Compensation & Benefits ($\beta = 0.118$, p = 0.169) and Green Employee Relations ($\beta = 0.152$, p = 0.062) did not reach statistical significance in the model. Therefore, H_{05} is partially rejected — three of the five Green HRM dimensions significantly predict overall effectiveness.

Table 8: Multiple Regression Analysis — Predictors of Green HRM Effectiveness

Predictor (Green HRM Dimension)	B (Unstd. Coeff.)	Std. Error	β (Std. Coeff.)	t-Value	Sig.
Constant	0.421	0.312	—	1.349	0.180
Green Recruitment & Selection	0.214	0.068	0.231	3.147	0.002*
Green Training & Development	0.298	0.072	0.312	4.139	0.000*
Green Performance Management	0.187	0.075	0.196	2.493	0.014*
Green Compensation & Benefits	0.112	0.081	0.118	1.383	0.169
Green Employee Relations	0.143	0.076	0.152	1.882	0.062
R = 0.784 R^2 = 0.615 Adj. R^2 = 0.598 F = 36.842 p = 0.000*					

Dependent Variable: Employee Environmental Awareness | * Significant at p < 0.05

7. Key Findings

- The overall Green HRM Index mean of 3.80/5.00 indicates moderate-to-good adoption of green HR practices in SBI, Haveri district, with scope for further strengthening.

- Employee Environmental Awareness ($\mu = 4.02$) is the highest-scoring dimension, suggesting that SBI employees are environmentally conscious, even if formal green HRM systems lag behind.

- Green Training & Development ($\mu = 3.91$) ranks second, indicating that eco-training initiatives are perceived positively by employees.

- Green Compensation & Benefits ($\mu = 3.59$) is the weakest dimension, suggesting that incentive structures for green behaviour are inadequately designed or communicated.

- No significant gender-based differences exist in Green HRM perception, indicating gender parity in green awareness across SBI's Haveri branches.

- Significant designation-based differences exist ($F = 12.847$, $p < 0.001$): senior managers have higher Green HRM awareness than clerical staff, pointing to a knowledge gradient that requires bridging.

- All six Green HRM dimensions are positively and significantly correlated, confirming the systemic and mutually reinforcing nature of green HR practices.

- Green Training & Development and Green Recruitment & Selection are the most influential predictors of Green HRM effectiveness, together explaining a substantial portion of variance in employee environmental awareness.

- The chi-square test confirms a significant association between designation and awareness level ($\chi^2 = 18.463$, $p = 0.001$), reinforcing the need for targeted awareness campaigns at the clerical level.

8. Recommendations

- SBI should institutionalise structured Green Awareness Programmes specifically designed for clerical and support staff in rural and semi-urban branches of Haveri district, using bilingual (Kannada-English) training materials and local context-specific examples.

- The bank should revamp its Green Compensation & Benefits framework by introducing tangible eco-incentives such as 'Green Points' redeemable for additional leaves, recognition awards, or performance bonuses linked to measurable green contributions (e.g., paper saved, digital transactions promoted).

- Green criteria should be systematically embedded in recruitment and induction processes, including environmental competency questions in interviews and eco-induction modules for new joiners.

- Performance appraisal forms should include explicit 'Green KRAs' (Key Result Areas) measuring individual contributions to sustainability targets such as reduction in paper usage, energy conservation, and promotion of digital banking.

- SBI should leverage the correlation between Green Training and Environmental Awareness by intensifying its ongoing e-learning modules (e.g., SBI's GINB portal) with dedicated green learning paths, gamified eco-quizzes, and virtual sustainability workshops.

- District-level Green Champions should be designated in each branch of Haveri district to bridge the awareness gap between senior management and frontline staff, ensuring a bottom-up reinforcement of green culture.

- Regular Green HRM Audits should be conducted at the zonal level, with results disaggregated by branch and designation, to monitor progress and identify persistent gaps.

9. Conclusion

This study provides comprehensive empirical evidence on the significance, adoption, and determinants of Green Human Resource Management practices in SBI branches across Haveri district, Karnataka. The findings reveal that while overall Green HRM adoption is moderate to good, significant gaps persist — particularly in green compensation design and awareness levels among frontline employees. The study confirms that Green HRM dimensions are mutually reinforcing systems, and that training and recruitment are the cornerstone drivers of green effectiveness.

Given SBI's pan-India reach and public sector mandate, strengthening Green HRM at the branch level — especially in Tier-III districts like Haveri — is not merely a corporate sustainability aspiration but a critical operational imperative aligned with India's National Action Plan on Climate Change (NAPCC) and RBI's Sustainable Finance Framework. This study contributes to the nascent but growing body of literature on Green HRM in Indian banking and offers a replicable methodological framework for similar studies in other districts and public-sector organisations.

Future research may extend this study by incorporating longitudinal designs, qualitative interviews with branch managers, and comparative analysis across public and private sector banks operating in Haveri district.

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