Green HRM and Sustainable Development In Handling Health Information In Eco- Conscious Hospital

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Abstract: The researcher in this paper explains how Green HRM practices can be used to address ethical behavior in the health information management of eco-conscious hospitals. As sustainability strategies evolve within healthcare organizations, the complex interactions between green practices and ethics are becoming increasingly crucial, especially when handling sensitive patient data. The paper assessed 388 healthcare workers using Descriptive Statistics, Confirmatory Factor Analysis, and Structural Equation Modeling to ascertain the relationships among Green HRM practices, ethical behavior, and information governance. The findings revealed a policy and practice gap, with low to moderate implementation and perceptions of the two green HRM practices and ethical information handling. The four significant factors Green HRM, ethical practices, and the health information system are closely intertwined. The research proposes, based on these results, further training, greater leadership involvement, and more effective ethical frameworks for policy to create dual commitment to the environment and ethical data. The findings underscore the applicability of healthcare facilities in structuring sustainability and ethical initiatives to achieve high-quality, long-term outcomes.

Keywords: Green HRM, Ethical Behaviour, Health Information, Eco-Conscious Hospital, Sustainability, Employee Ethics, Digital Health Records, Hospital Management, Structural Equation Modelling (SEM), Information Governance.

Introduction

In the medical service, providers are caught between two issues: providing quality care to patients and promoting sustainable environmental initiatives. In light of the ecological implications, hospitals are turning to Green HRM (Green Human Resource Management) as an essential practice to ensure sustainability in the healthcare sector (John Samuel Babu & Baskar, 2023). Green HRM indicates that the company's human resources policies and practices align with its environmental objectives. This will encourage employees to be environmentally responsible. When effectively implemented, Green HRM could make hospitals greener and demonstrate that they are concerned not only about their patients' health but also about the health of the earth (Deshmukh & Talwar, 2025).

The citizens are optimistic that the healthcare system will manage health information impartially. With the advent of electronic health records, cloud-based data communication, AI-driven diagnostics, and so on, the questions of privacy, confidentiality, and the appropriate use of patient data have become more critical. In the case of sensitive health care information, being a professional entailsentails acting ethically,, but it also means being a moral citizen and thus trying to protect patients' rights

As a result, environmentally friendly hospitals are at the crossroads of ethics in governance and ecological care. HR principles play a significant role in such organizations to ensure that medical staff observe green laws and the ethics code. Hiring individuals interested in the environment, educating them on how to behave ethically, and establishing accountability mechanisms can help hospitals developbuild a culture of respect forfor the environment and forpatient privacy. The paper examines how Green HRM practices and responsible hospitals manage health information in a morally accountable manner (Al-Jubouri, 2022). It seeks to explore the impacts of effective HR policies on the environment and on employees' levels of awareness, responsibility, and conscientiousness in handling health information. It investigates the possibility that institutions concerned with the environment should inherently make it easier to handle information more ethically, thereby benefiting general healthcare governance.

This paper demonstrates how green management and ethics can complement and support one another in the healthcare sector. The current society is closely interconnected with environmental concerns, as the success of institutions and public confidence are interdependent.

Objective of The Study

- 1. To determine the adoption and application of Green HRM in eco-conscious hospitals.
- 2. To investigate the extent of ethical conduct displayed by the healthcare professionals in the process of handling the sensitive information of health.
- 3. To explore the relationship between the ethics of the conduct in managing patient health information and Green HRM practices.
- 4. To evaluate the most significant Green HRM practices that would help in enhancing the ethical standards of employees in the hospital.
- 5. To determine the values of the perceptions of the healthcare staff concerning the role of environmental values in defining ethical information handling practices.
- 6. To investigate whether warmer ethical climates are provided in eco-conscious hospitals compared with traditional healthcare organizations.
- 7. To make recommendations on how Green HRM strategies can be incorporated with the ethical guidelines as a way of enhancing healthcare governance and sustainability.

Review of Literature

Somuah et al. (2025) conducted a comprehensive literature review of how SRHRM (Socially Responsible Human Resource Management) can create social value. Based on 78 empirical studies retrieved from databases such as Scopus, Google Scholar, and Web of Science, the authors determined that CSR-related compulsions are significant determinants of the enactment of SRHRM practices. Although there was a growing focus on the environmental and economic dimensions of sustainability, the social pillar,, especially the ,people aspect, was not well researched in the study. This disparity implies that organizations are not using HRM to its full potential to promote social well-being. The review recommends that future studies consider social sustainability in both CSR programs and HRM systems, with a focus on human-oriented outcomes in sustainable development agendas (Al Mamun et al., 2024).

Strategic Integration of CSR and GHRM

The paper by Naeem Ud Din et al. (2025) explored the potential of using CSR initiatives as a strategy to support Green HRM to drive sustainability and employee well-being in the manufacturing industry. They conducted research based on the stakeholder and AMO theories using data collected among 398 Pakistani employees.

The Role of Knowledge Sharing

One insight was the mediating role of Green Knowledge Sharing (GKS). GKS enabled the more effective spread of sustainability values, thereby improving both the operational and cultural effectiveness of GHRM initiatives.

Enhancing Influence through Intellectual Capital

Moreover, the research identified Green Intellectual Capital (GIC), as the moderating factor, reinforcing the connection between CSR and GKS. The existence of GIC creates conditions for the flourishing of sustainable HRM practicesflourish.

Implications for Practice

The findings highlighted herein reiterate the point that organizations that aspire to be environmentally and socially responsible need to capitalize on CSR-oriented HRM, employee knowledge sharing, and intellectual resources to build a workforce that is indeed sustainable.

In their study, Dong Fangqi and colleagues investigated the impacts of sustainability communication in green hospitals in China on ecological employee behavior in 2025. Using a sample of 428 employees, the research used PLS-SEM to test the interplay mechanisms.

Mediating Influence of Relationships and Norms

The authors found that communication not only has a direct effect on pro-environmental behavior but also also has a significant indirect effect on communal relationships and shared ecological norms, thereby revealing the strength of organizational culture and social processes.

Emotional Drivers: Green Warm Glow

One of the engaging lessons was the contribution of the green, warm glow—the feeling of personal gratification in the ecological good—that increased the influence of communal ties on environmental behavior. However, its effect on ecological norms was statistically insignificant.

Implications for Green Healthcare

The results emphasize to hospitals that want to improve their sustainability that good intra-organizational communication and nurturing social relationships instill green virtues in employees' daily organizational behavior. In a study (Chun-Chien Lin & Yen-Ling Lin, 2025) carried out by utilizing the data of 94,278 respondents (66 countries), the authors explored the impact of implementing ESG in Green HRM to organize the sustainability of organizations. They also established that ESG-motivated GHRM can contribute significantly to environmental and economic performance, using Smart PLS 4 and SEM. The negative but significant moderating effect was on employee happiness, which, in turn, positively but insignificantly boosts green engagement and does not significantly strengthen the impact of GHRM. The article also emphasizes the value of harmonizing GHRM with ESG and employee well-being to facilitate sustainable practices (Bhanot et al., 2025).

Recent research (Sharifa Khalid Mousa, Jose Maria Fernandez-Crehuet, and Yousef Ayman Yousef Thaher, 2025) investigated how the healthcare industry could be improved over time through the use of GTFL healthcare services, which the authors examined in hospitals and rehabilitation facilities in Palestine. The paper used Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among leadership, HRM strategies, and innovation. The findings indicated that Green Transformational Leadership (GTFL) is desirable for sustainability across social, economic, and environmental dimensions. Green Human Resource Management and Green Innovation were also established as key factors that can help leaders encourage people to do their work in an environmentally friendly manner. The researchers underlined that eco-friendly HR policies, leadership vision, and creative thinking all work together to make healthcare companies more sustainable. This study enables institutions that desire to implement green initiatives in their leadership and operations strategies to help them achieve overall sustainable performance.

Dagnu Haile Tessema and Figen Yesilada (2025) used the SOR model to study how Total Quality Management changed patients' plans to return to public hospitals in Addis Ababa. They analyzed data from 289 outpatients using Smart-PLS 4 and found that TQM has a substantial effect on the likelihood of returning. This is true both directly and indirectly through how satisfied they are with the service and how good they think it is. Trust changed the link between wanting to come back and being happy with the service, but it did not change the link between service quality and wanting to come back. The authors indicate that TQM and trust are able to retain patients in returning to the public healthcare system.

A systematic review of the effect of the Health Care Waste Management on the environmental performance of developing countries, with a specific interest in Pakistan, was carried out by Farwa Nisar and Shaherbano Rizvi (2025). They discovered significant problems, such as a lack of waste segregation, ineffective regulations, and the lack of awareness of the staff, all of which are hazardous to the environment and health when using the PRISMA framework. The review noted the importance of training and awareness in the field of healthcare. However, the research needs certain limitations, such as the use of secondary data; an empirical study is required in order to comprehend sustainable HCWM practices better (Revathi, 2024).

In (Figen Yesilada & Iman Aghaei, 2025), the authors investigated the way that the Green HRM practices encourage pro-environmental behavior of their own staff in their respective private hospitals in the city of Addis Ababa. Based on the results of 347 employees and Smart-PLS 4, they discovered that Green HRM has a positive effect on green commitment and eco-friendly behavior (Arora & Naik, 2025). This relationship was partially mediated by green commitment, and the use of sustainable leadership increased the direct impact of Green HRM on behavior, but not on its relationship through commitment. The paper identifies HRM and leadership as playing a role in promoting environmental responsibility in the healthcare sector, in line with Sustainable Development Goal 3.

The article (Ali Hasan et al., 2024) examined the role of the eco-centric leadership in developing pro-environmental behavior among their hospital sweepers and cleaners in Pakistan. In this work, it was discovered that this leadership enhances green knowledge sharing, particularly when there is a green organizational climate. Green consciousness also enhanced the association between the sharing of knowledge and environmental friendliness. Emphasizing the importance of leadership, culture, and personal awareness, the research provides some essential concepts regarding the way to enhance sustainability in the frontline healthcare workers.

To evaluate the role that the GHRM practices played in enhancing sustainability performance in the healthcare industry in Pakistan, Javed Saima, Zhu Yingjun, Nilesh Kumar, and Sikraj Meghwar (2024) conducted a descriptive study to investigate the contribution. This research, based on the answers of 250 medical workers, discovered that the application of green hiring was explicitly associated with the economic performance, whereas green training, employee involvement, performance appraisal, and eco-friendly compensation systems were positively related to social, financial, and environmental aspects of sustainability. The study supports the necessity to customize green HR policies to achieve optimal sustainability objectives and the growing significance of GHRM in promoting sustainable development in healthcare systems, specifically in developing countries, such as Pakistan.

The authors examined the impact of ESSL on GOCB in the Indian medical market (Vikash Mandal & Durba Pal, 2024) and put a particular focus on the EGV. The method used by researchers was a quantitative and cross-sectional approach to retrieve data on 333 hospital staff in Ranchi. Then they analyzed the data with the PLS-SEM of Smart PLS 4.0. The findings showed that ESSL positively affected GOCB directly, whereas EGV only partially mediated this effect. This implies that the environmental ethics of the employees are specifically important towards influencing leaders in a green manner. This paper shows that leaders must educate the team on the need to be environmentally accountable. This leads to the conclusion that such a way of doing things can make people do what is good for the environment. This will help it create a sustainable and moral workplace culture in the healthcare institutions.

Weiwei Liu, Xiaolin Li, and Xin Guo examined the ways that SRHRM can make their healthcare staff more environmentally friendly. An experiment they conducted showed that VGB is enhanced by the SRHRM using the concept of green passion, and the opinions employees have of the CSR motives determine the strength of the effect. This paper shows that emotional engagement and communicating CSR are imperative in influencing people to take an environmentally sustainable action. It also implies that SRHRM can be a significant instrument in making healthcare more sustainable.

Abdullah et al. (2024) examined the improvements of socially responsible HRM in enhancing long-term performance through the analysis of data on 307 manufacturing organizations on the promotion of employees to be more environmentally friendly. It was noted in the study that SRHRM increases EGB, which increases SP. This demonstrates that EGB is a significant relationship. SRHRM did not require an immediate impact on SP, which indicates that it does not influence it directly but rather through behavior. PGC was advantageous to EGB, but without altering the relationship between SRHRM and EGB. The study highlights the importance of aligning HRM ethics with the behavior of employees and the culture of the company in order to continue to exist.

Hina Zahoor (2024) also examined the ways that Green HRM can help make healthcare more sustainable, particularly in nations that are not very developed. The research examined aspects such as hiring, training, managing, and starting programs with the attribute of being environmentally sound, and promoting the health and well-being of the employees. These projects were observed to improve the service and sustainability of the environment. The analysis has highlighted that training, creation of awareness, and planning in advance of HR are all essential in order to make Green HRM a permanent part of the healthcare systems.

Anastasios Sepetis (2024) explored the role of organizational behavior in making the Greek healthcare system more sustainable. He found that administrators did not care about the environment. Low employee motivation, ineffective communication, and ignorance were considered to be some of the most significant issues. The research served to illustrate that to ensure healthcare is sustainable, values have to be aligned, leaders should participate, and individuals have to alter their behavior (Palash & Dhurvey, 2024).

Following the SDGs of the UN, Akanksha Joshi et al. (2023) conducted extensive research on the ways in which Green HRM can assist organizations to be more sustainable. They ensured that they clarified that GHRM is not merely about obeying the rules but also about doing the HR activities, such as recruitment and performance reviews, in a manner that is more sustainable to the environment. The research also emphasized the importance of HR in forming a green culture and urged the need to conduct more research on the GHRM strategies that can be implemented by more than just a single business Sargunapathi et al., 2024.

(Waqas Baig et al., 2022) Examined the question of how the ethical leadership approach could render employees working in the hotel industry in Pakistan more environmentally friendly. They employed SEM to demonstrate that ethical leadership influences green behavior in a direct and indirect way and that the impact of moral leadership is enhanced with organizational resilience. The discussion shows the importance of HRM in making the working culture more sustainable.

The relationship between ethical leadership and green behavior was investigated by Saima Ahmad et al. (2021), who found that Green HRM does contribute to the relationship. The impact is much larger with the knowledge of the environment. This is what demonstrates the importance of honest leaders, HR policies that are supportive, and actually caring about the environment workers.

Sharifa K. Mousa and Mohammed Othman (2020) considered Green HRM in Palestinian healthcare and found that it was used slightly but with a high degree of sustainability. The most significant impacts were experienced with green hiring and training. Green HRM assisted the environment by providing a platform for the establishment of policies.

The study by Helena Mateus Jeronimo et al. (2020) was conducted on the influence of Green HRM on the perception of sustainability in Portuguese organizations. Green hiring affected older employees' perception, where green training was more effective for younger employees. Green compensation did not produce much impact, and this indicates that the use of an age-sensitive approach is critical towards promoting sustainability values.

Research Gap

Although there has been an increasing literature on Green Human Resource Management (GHRM) and ethical behavior in the healthcare sector, the current research has mainly dealt with the two constructs independently, with some studies having concentrated on sustainable HRM practices and others on ethical information management. Although Mandal and Pal (2024), Lin and Lin (2025), and Mousa et al. (2025) have employed SEM to determine the relationship between leadership, GHRM, and sustainability, limited studies have examined the impact of the GHRM practices on the ethical behavior of data management, particularly in eco-friendly healthcare settings. The exploratory factor analysis (EFA) indicates that there is a great deal of factorial zing between GHRM and ethical data handling, which implies an emergent construct that has not been previously examined in other SEM models. Moreover, the low mean scores of the descriptive statistics demonstrate the existence of implementation gaps, but KMO (.934) and significant Bartlett's test values substantiate the factorability of SEM. Therefore, there is a noticeable research gap in terms of modeling the combined effect of GHRM on ethical behavior in terms of health information management, particularly when mediators such as green commitment or moderators such as green climate are taken into consideration- a gap which the current SEM framework is well placed to fill.

Research Methodology

Research Design

The study takes the quantitative method to examine the correlation between Green Human Resource Management (Green HRM) practices and ethical conduct in managing health information in environmentally conscious hospitals. Both descriptive and analytical approaches are used in the study because they try to reveal the fundamental dimensions of the variables and determine the causal relationships between them.

Population and Sample

The population that is desired to be targeted is the healthcare professionals employed in the hospitals that have already implemented sustainable and environmentally friendly practices within their operations. The participants include doctors, nurses, HR staff, as well as administrative staff who are involved with patient information handling and HR functions directly or indirectly. Purposive Sampling was used to include the sample of 388 respondents.

Data Collection Method

The primary data was recorded using a questionnaire, which was aimed at obtaining answers on a five-point scale, where "Strongly Disagree" to "Strongly Agree" could be the possible responses. The questionnaire will be divided into three parts:

- 1. Socio-economic data of the respondent.
- 2. One of the Green HRM information sources established by the hospital.
- 3. Ethical conduct in health-related information management.

The instrument was pre-tested before the primary survey to determine its clarity, reliability, and validity.

Mitigation of Internal Biases in Data Collection

As a measure to mitigate internal biases in data collection, a number of protocols were put in place as a mechanism of making the qualitative data rigorous and neutral. One, a detailed data collection protocol was adhered to in order to favor uniformity of all the interviews and observations - this involved the application of structured and semi-structured

interview protocols to minimize interviewer bias and to have all the participants respond to the same set of core questions. Second, the triangulation data methods were employed through the application of various data sources (e.g., interviews, surveys, and analyzing documents) to confirm the results and reduce researcher bias that might be inherent to a single source of data. Third, peer debriefing was done at different times, both in the data collection and the data analysis stages of the research, to identify and correct any possible researcher biases. Member checks were also applied to provide the participants time to re-read the interpretation of their responses in order to ensure that the data was well represented and credible. These were the guidelines that were used to restrain any verbal, textual, and visual biases in the data, but these objectives enhanced the credibility and reliability of the results of the study.

Statistical Tools and Techniques

In order to examine the data obtained, the following statistical techniques were applied:

- Exploratory Factor Analysis (EFA): This was done to determine the latent construct of the variables pertaining to Green HRM and ethical behavior. Principal Component Analysis (PCA) technique, along with Varimax rotation, was used to find significant groupings of factors.
- Confirmatory Factor Analysis (CFA): This is administered in order to confirm the established factor structure by EFA, and to determine the construct validity and reliability of the measurement model.
- Structural Equation Modeling (SEM): It is applied to test the hypothesis of the cause-and-effect relationship between independent and dependent variables, such as Green HRM and ethical processing of health information. A modeling was conducted with the help of such tools as AMOS or SmartPLS, and the standard model fit indices were used to evaluate the goodness-of-fit CFI, RMSEA, and SRMR.

Measure of Reliability and Validity

- The content validity has been determined using the opinions of field experts.
- During CFA, construct and convergent validity were established.
- The reliability has been tested with Cronbach's alpha, and all the scales showed a value exceeding 0.70, which is the acceptable level of internal consistency.

Limitations of the Study

- 1. **Limited Perception and Awareness:** The descriptive statistics indicate that, in terms of perception, the mean scores are usually low (1.82-2.50), i.e., the employees have low knowledge or good perceptions towards both the Green HRM practices and the ethical behavior of health information management. This can influence the level and quality of responses.
- 2. **Geographical and Institutional Scope:** The research is also limited to eco-conscious hospitals, which would not be an accurate representation of the practice of all hospitals and healthcare systems. As such, the findings cannot be extended to non-eco and smaller health care organizations in other geographical locations.
- 3. Cross-Sectional Character of the Study: The data were collected only at a given time, which constrained the study in its capacity to make cause-and-effect correlations. A longitudinal approach would provide more of a dynamic view of the changes in Green HRM practices and ethical behavior as these changes occur over time.
- 4. **Reliance on Self-Reported Responses:** The study relies on self-report surveys, which are prone to social desirability bias, especially when the questionnaire inquires about sensitive aspects such as ethical behavior or compliance with green practices. This may impact the objectivity of the findings.
- 5. Lack of Qualitative Data: The study does not include any qualitative inputs like interviews or focus groups, despite the use of such statistical analyses as descriptive analysis and factor analysis. Such approaches may offer more information on the problems and the enablers of the implementation of Green HRM and ethical health information management.
- 6. **Limited Exploration of Mediators and Moderators**: Although the factor analysis identifies integrated constructs, the SEM model does not explore mediating or moderating variables such as organizational culture, green commitment, or ethical climate, which may influence the relationship between GHRM and moral behavior.

- 7. **Policy–Practice Gap**: Many items in the data (e.g., policies supporting ethics and sustainability) are perceived as weakly implemented, which may reflect a gap between stated policies and actual practice, but this aspect was not directly explored or measured in the study.
- 8. **Generalizability to Other Sectors**: Since the focus is on the healthcare sector, particularly eco-conscious hospitals, the findings may not be applicable to other industries or even to general healthcare institutions lacking an explicit green or ethical agenda.

Table 1: Green Hrm And Ethical Behaviour In Handling Health Information In Eco-Conscious Hospital

Descriptive Statistics				
	Mean	Std. Deviation	Analysis N	
Green HRM Pr	actices	I		
My hospital has clear policies on environmental sustainability	2.50	1.275	388	
Green HRM practices are included in recruitment and selection processes.	2.09	1.257	388	
Employees receive training related to environmental protection.	2.07	1.178	388	
Our performance appraisal includes sustainability-related activities.	2.42	1.188	388	
5. Digital systems are encouraged to minimize paper use.	2.01	1.123	388	
6. Energy-saving and waste reduction measures are part of the daily work routine.	2.02	1.058	388	
7. Hospital encourages green initiatives (carpooling, paperless records, etc.).	2.11	1.254	388	
8. Leadership actively promotes green behavior among staff.	2.07	1.195	388	
9. Green HRM is integrated into employee engagement and rewards.	2.06	1.187	388	
10. I feel motivated to act in an environmentally responsible way at work.	2.03	1.148	388	
Ethical Behaviour in Handling Health Information				
I always maintain patient confidentiality when handling information.	2.05	1.128	388	
2. I obtain informed consent before collecting or sharing patient data.	2.40	1.204	388	

0.71 1				
3. I have been trained in the ethical use of Electronic Health Records	2.02	1.193	388	
(EHRs).				
4. Access to patient data is	4.00	0.20	•	
restricted only to authorized	1.93	.930	388	
personnel.				
5. I understand the legal and			• • • •	
ethical responsibilities involved in	1.93	1.065	388	
handling patient data.				
6. My hospital uses secure systems	205	4 4 0 4	•	
to store and manage patient	2.05	1.101	388	
information.				
7. There is a regular			• • • •	
audit/monitoring of ethical	2.01	1.146	388	
compliance in data usage.				
8. I would report unethical			• • • •	
behavior related to patient	2.06	1.057	388	
information.				
9. Ethical handling of data is				
included in staff performance	2.00	1.163	388	
evaluations.				
10. My department regularly				
discusses ethical issues related to	1.82	.928	388	
data privacy.				
Perception on Integration of	Green HR	M And E	thics	
1. Green HRM practices indirectly				
promote ethical behavior among	1.97	1.083	388	
employees.				
2. Digitalization under Green			388	
HRM has helped improve the	1.98	.992		
ethical handling of health records.				
3. There is a clear policy				
connecting sustainability with data	2.32	1.276	388	
ethics.				
4. Green HRM enhances overall	2.20	2 29 1 154	388	
professionalism in healthcare.	2.28 1.154		300	
5. My hospital supports both green				
and ethical values in practice, not	2.34 1.228		388	
just in policy.				

Sources: SPSS Data

As highlighted in Table 1, the descriptive statistics of the respondents indicate that they agree with the statements concerning Green HRM practices, ethical conduct in managing health information, and integrating the two. The vast majority of mean scores are between 1.82 and 2.50, which is a 5-point scale, which means that eco-conscious and ethical practices are not highly perceived as active or working in their hospitals. Indicatively, the minimums are seen in such areas as limited access to patient information (1.93), discussion of ethics in the department (1.82), and ethical audits (2.01), and seem to be poorly aware or practiced. On the same note, Green HRM practices that involve the utilization of digital systems to minimize paper (2.01), green initiatives (2.11), and leadership support (2.07) depict a poor integration. The general findings indicate a disconnection between policy and practice, and a more intense application of both Green HRM and ethical standards to healthcare environments.

Table 2: KMO and Bartlett's Test

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.934	
	Approx. Chi-	11301.28	
Bartlett's Test of	Square	2	
Sphericity	Df	300	
	Sig.	.000	

Sources: SPSS Data

Table 2 indicates that the Kaiser-Meyer-Olkin (KMO) value was 0.934, which is far more than the required minimum value of 0.6. This implies that the data will be very suitable for factor analysis. In addition, it is shown that the Test of Sphericity of Bartlett gave a Chi-square value of 11,301.282 with 300 degrees of freedom and a p-value lower than 0.001, which means that the variables are correlated adequately and the correlation matrix is not an identity matrix. The combination of these findings justifies the progress to the next stage of data reduction and structure identification, which is Exploratory Factor Analysis (EFA).

Table 3: Rotated Component Matrix^a

Rotated Component Matrix				
	Component			
	1	2	3	4
I have been trained in the ethical use of Electronic Health Records (EHRs).	.863			
Green HRM is integrated into employee engagement and rewards.	.854			
Leadership actively promotes green behavior among staff.	.830			
Employees receive training related to environmental protection	.802			
I always maintain patient confidentiality when handling information.	.792			
I am motivated to act in an environmentally responsible way at work.	.765			
I would report unethical behavior related to patient information	.727			

I obtain informed consent before collecting or sharing patient data.	.695			
Digitalization under Green HRM has helped improve the ethical handling of health records.	.691			
Digital systems are encouraged to minimize paper use.	.681			
My hospital has clear policies on environmental sustainability	.670			
Ethical handling of data is included in staff performance evaluations.	.585			
Green HRM practices indirectly promote ethical behavior among employees.	.530			
I understand the legal and ethical responsibilities involved in handling patient data.		.819		
My hospital uses secure systems to store and manage patient information.		.792		
Access to patient data is restricted only to authorized personnel.		.767		
My department regularly discusses ethical issues related to data privacy.		.704		
There is a regular audit/monitoring of ethical compliance in data usage.		.654		
Green HRM practices are included in recruitment and selection processes.		.571		
There is a clear policy connecting sustainability with data ethics.			.873	
Green HRM enhances overall professionalism in healthcare.			.787	

Our performance appraisal includes sustainability-related activities.		.718	
The hospital encourages green initiatives (carpooling, paperless records, etc.).		.531	
Energy-saving and waste reduction measures are part of the daily work routine.		.530	
My hospital supports both green and ethical values in practice, not just in policy.			.851

Sources: SPSS Output

As seen in Table 3, the outline of the components of the factor analysis results is as follows. **Component 1:** Green HRM Practices and Ethical Behavior in Hospital Information (GHRM & EBHHI). This component consolidates Green HRM Practices (GHRMP) and Ethical Behavior in Hospital Information (EBHHI) with some PIGHE items. As noted in Table 3, these items reflect an understanding integrated within the dimension of sustainable and ethical HRM practices, particularly and predominantly within the scope of considerate health data and environmental elements.

Component 2: Ethical Behavior in Hospital Information (Focused Dimension). This component is focused on ethical behavior in hospitals concerning more personal and transparent dimensions, particularly in the handling of patient information. One GHRMP item (GHRMP2) loading here suggests overlap between HRM training and ethical conduct has been indicated in Table 3.

Component 3: Policies for Information Governance and Health Ethics (PIGHE Focus): This component mainly reflects policy awareness and compliance with ethical information governance in healthcare in Table 3. The inclusion of some GHRMP items suggests HR policies promote or regulate such governance.

Component 4: Independent Factor (Possibly Specific Policy or System Variable): This variable loads exclusively and firmly onto Component 4. It may represent a specific policy aspect or a standalone concept in Table 3that does not overlap much with other variables. If PIGHE5 refers to a unique governance or data protection policy, it might warrant its own construct.

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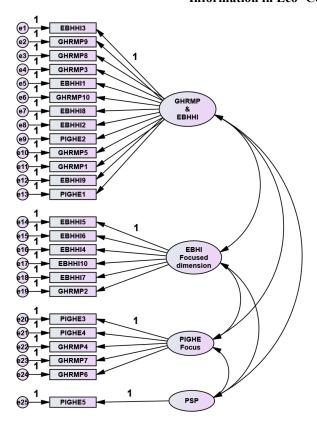


Figure 1: Standardized Estimation among Green HRM and Ethical Behaviour in Handling Health Information in Eco- Conscious Hospital

Figure 1 illustrates the hypothesized structural relationships between Green HRM practices and ethical behavior in handling health information. The expected positive paths among training, leadership, and data handling ethics confirm the mutual reinforcement between environmental consciousness and ethical compliance.

Suggestion

1. Strengthen Policy Implementation:

Even if some green and ethical policies are in place, the low mean scores indicate that they are not effective. Training, supervision, and practicing performance evaluations on such policies will prompt the hospitals to bridge the gap between policy and implementation.

- 2. **To boost operational employee and staff accountability**, bodies such as the IAA and AHIMA ought to be more involved in the regular training on environmental sustainability and ethical policies.
- 3. **Green HRM plans ought to intertwine ethical standards:** It is a principle throughout recruitment, performance, digitalization, and reward systems to ensure environmental and social governance objectives are achieved.
- 4. The role of Leadership in Ethical and green Behavior is pivotal: Management ought to model exemplary behavior, unequivocally projecting green values and applauding employee conscientious acts.
- 5. Encouraging ethical dialogue will create a responsive ethical climate: Through regular discussions, audits, and feedback on the data privacy, sustainability, and confidentiality crossroads, that culture will be realized. Departments can create a responsive, ethical climate. Through regular discussion, the audits and feedback on the data privacy, sustainability, and confidentiality crossroads.
- 6. Construction of Guidelines on Green Ethics: Institutions must develop clear and precise guidelines on the integration of green initiatives (like digital recordkeeping) with ethical initiatives (like data privacy and consent) to ensure comprehension and enhanced compliance.
- 7. **Periodic Practice Monitoring and Evaluation:** Set up a systematic approach (e.g., Internally Scheduled Audits and Equally Distributed Performance Reviews) to gather and assess the data on the Green HRM and ethical standards and the need for corrective action.

Conclusion

The findings indicate that eco-sensitive hospitals have not fully integrated Green HRM practices and ethically refrained from implementing health information systems concerning eco-sensitive hospitals. Employees feel that while there may be policies concerning Green HRM practices within the institutions, there is still a lack of enforcement. Following the comprehensive Green HRM practices, the ethical dimension of the health information practices revealed a strong relationship with the other practices, suggesting a potential lockstep synergy.

Even so, the lack of enforcement of policies is still apparent. This relates particularly to the political support for leadership, the issues of digitalization, and the confidentiality of sensitive data. This gap suggests there is an expectation that the policy-neutral gap that remains should be a construct of everyday HRM operations, and incorporate high-level clinical practices. As an institution, health care systems should be able to differentiate between a policy and the integration of a value into everyday operations.

In order to ensure the credibility of information, potential internal biases, especially social desirability bias concerning self-reporting through quantitative surveys on ethically sensitive issues, were dealt with by some methodological steps. Consistency and rigor in data collection were achieved through the use of a standardized pretested questionnaire, which reduced biases at the level of the interviewer and text. Construct validity and reliability of the measures were determined using confirmatory factor analysis (CFA) and Cronbach's alpha to ensure the instruments were truly capturing the constructs of Green HRM and ethical behavior. The strong statistical constructs of the instruments led to the following conclusions: the low mean scores indicated a gap between policy and practice, and strong integration of the factors confirmed the interdependent relationship of Green HRM with ethical behavior, which led to the conclusion that there was a need to coordinate these factors at the strategic level.

For eco-conscious hospitals concerned with attaining ethical excellence and sustainability, the strategic alignment of HRM, leadership dedication, employee involvement, and ongoing training is vital and needs to be synchronous. Enhanced eco-focused practices will ensure digital age patient trust and regulatory compliance, in addition to improved environmental performance.

Scope for Future Study

Initial research on the intersection of Green HRM and Ethical Behavior in Handling Health Information in Eco-Conscious Hospitals lays the groundwork for understanding the relationship between sustainable practices in human resource management and the ethics of handling health information. Nonetheless, there is a great deal still to be researched. For instance:

- Comparative Studies across Hospital Types: Future research can explore the adoption of green HRM and the ethics of health information practices in eco-conscious versus traditional hospitals, and in public versus private hospitals, to determine differences and outcomes.
- Longitudinal Analysis: Future studies can be more focused and track the change and adoption of green HRM practices and the ethics of health information handling to evaluate their long-term effectiveness and sustainability.
- Integration with Digital Health Systems: Additional studies are needed to understand how the adoption of technologies such as EHRs and Artificial Intelligence in hospitals is changing ethical data handling with green HRM.
- Cross-Cultural or Regional Comparisons: Studies across states or countries can evaluate how differing cultural, regulatory, and environmental practices influence green HRM and the ethics of health information practices in hospitals.
- Trust and Satisfaction: Stakeholders currently perceive the study as focusing purely on organizational work behavior. Future studies have the potential to examine the trust and satisfaction perspectives of patients as stakeholders in the organization and the extent to which their organization adopts green human resources management practices and ethical treatment of health information.
- Leadership and Culture: Future research may study how leadership and organizational culture in healthcare institutions influence the ethical and eco-conscious human resource practices in the organization.
- **Impact Assessment:** Future research in this area could be more effective by applying the quantitative models to assess the extent of the impact of green human resource management on the organization's operational efficiency, ethical performance, and eco-sustainability.
- **Employee Training:** The need to examine the extent and impact of training and awareness on employees regarding positive behavior towards organizational eco-friendly initiatives, ethical health information, and data.

- Government and Healthcare Partnerships: The influence of government and healthcare regulations on the adoption of green human resource management and the ethical treatment of health information as it pertains to healthcare regulations.
- Stakeholders and CSR: The role and influence of stakeholders from within and outside the organization in the adoption and implementation of green human resource practices in eco-friendly healthcare environments and the ethical adoption of behavior practices.

Reference

- 1. Ahmad, S., Islam, T., Sadiq, M., & Kaleem, A. (2021). Promoting green behavior through ethical leadership: a model of green human resource management and environmental knowledge. *Leadership & Organization Development Journal*, 42(4), 531–547.
- 2. Deshmukh, A., & Talwar, A. (2025). Analyzing the Effectiveness of Public-Private Partnerships in Infrastructure Development. International Academic Journal of Innovative Research, 12(2), 7–12. https://doi.org/10.71086/IAJIR/V12I2/IAJIR1211
- 3. Al Mamun, A., Uddin, M. A., Rana, T., Biswas, S. R., & Dey, M. (2024). Socially responsible human resource management for sustainable performance in a moderated mediation mechanism. Sustainable Futures, 8, 100362.
- 4. Al-Jubouri, N. A. B. (2022). The Role of Humble Leadership Behaviors in Restricting Organizational Silence: An Investigative Study of Faculty Members' Opinions in the College of Administration and Economics at Tikrit University. International Academic Journal of Organizational Behavior and Human Resource Management, 9(2), 01–13. https://doi.org/10.9756/IAJOBHRM/V9I2/IAJOBHRM0904
- 5. Atalla, A. D. G., El-Ashry, A. M., & Khattab, S. M. K. (2025). Fostering eco-friendly excellence: exploring the relationship between green human resource practices and organizational environmental performance as perceived by nurses: a cross-sectional study. BMC nursing, 24(1), 1-11.
- 6. Arora, T., & Naik, A. (2025). Analysis of the Role of Algebraic Structures in Enhancing Cryptographic Security and Encryption Techniques. International Academic Journal of Science and Engineering, 12(2), 6–10. https://doi.org/10.71086/IAJSE/V12I2/IAJSE1211
- 7. Baig, W., Waseem, F., Shafiq, A., & Younas, N. (2025). ROLE OF MOTIVATIONAL STATES AND ORGANIZATIONAL RESILIENCE IN DETERMINING THE RELATIONSHIP BETWEEN ETHICAL LEADERSHIP AND EMPLOYEE GREEN BEHAVIOUR. Contemporary Journal of Social Science Review, 3(2), 38-61.
- 8. Revathi, R. (2024). Malgudi a Fictional World: A Critical Study on R.K. Narayan's Malgudi Days. International Academic Journal of Social Sciences, 11(1), 48–50. https://doi.org/10.9756/IAJSS/V1111/IAJSS1107
- 9. Fangqi, D., Butt, R. S., Muneer, S., Naseem, W., Bhatti, S. M., & Naveed, R. T. (2025). Sustainability in action: How green hospitals foster ecological behavior through social and normative pathways. Discover Sustainability, 6(1), 587.
- Palash, P. S., & Dhurvey, P. (2024). Influence and Prediction of Sintered Aggregate Size Distribution on the Performance of Lightweight Alkali-Activated Concrete. Archives for Technical Sciences, 2(31), 49–56. https://doi.org/10.70102/afts.2024.1631.049
- 11. Haerah, K. (2024). Review of Human Resource Management in the Field of Public Management and Public Administration. Advances In Social Humanities Research, 2(7), 924-933.
- 12. Sargunapathi, R., Jeyshankar, R., & Thanuskodi, S. (2024). Bibliometric Analysis of Scientific Collaboration in Quantum Dots Literature. Indian Journal of Information Sources and Services, 14(2), 178–185. https://doi.org/10.51983/ijiss-2024.14.2.25
- 13. Hasan, A., Zhang, X., Mao, D., Kashif, M., Mirza, F., & Shabbir, R. (2024). Unraveling the impact of eco-centric leadership and pro-environment behaviors in healthcare organizations: Role of green consciousness. Journal of Cleaner Production, 434, 139704.
- 14. John Samuel Babu, G., & Baskar, M. (2023). Location Aware DFS Scheduling Based Improved Quality of Service Maximization with IoT Devices in Cloud Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, 14(1), 37-49. https://doi.org/10.58346/JOWUA.2023.I1.003
- 15. Javed, S., Yingjun, Z., Kumar, N., & Meghwar, S. (2024). Green human resource management practices and organizational sustainability performance in Pakistan's healthcare sector: a descriptive analysis. International Journal of Research in Business & Social Science, 13(1).
- 16. Bhanot, D., Jadhav, Y., Tiwari, G., & Walia, A. (2025). Environmental Implications of Heavy Metal Deposition and Particulate Matter in Coal Mining Ecosystems. Natural and Engineering Sciences, 10(1), 325-339. https://doi.org/10.28978/nesciences.1648723

- 17. Joshi, A., Kataria, A., Rastogi, M., Beutell, N. J., Ahmad, S., & Yusliza, M. Y. (2023). Green human resource management in the context of organizational sustainability: A systematic review and research agenda. Journal of Cleaner Production, 430, 139713.
- 18. Lin, C. C., & Lin, Y. L. (2025). The Role of Happiness in Strengthening ESG-Driven Green HRM Practices and Organizational Sustainability. Advances in Management and Applied Economics, 15(3), 1-7.
- 19. Mandal, V., & Pal, D. (2025). Sustainable leadership: empowering green organizational citizenship behaviour through employee green value in the Indian healthcare sector. Journal of Asia Business Studies, 19(1), 79-102.
- 20. Manikandan, G., Suryakumar, M., Velusamy, K., Ramesh, A. B. K., Rathinavelu, S., Rajkamal, S. V., & Jageerkhan, M. N. (2022). Work life imbalance and emotional intelligence: a major role and segment among college teachers. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 7(6), 14.
- 21. Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. Journal of cleaner production, 243, 118595.
- 22. Mousa, S. K., Fernandez-Crehuet, J. M., & Thaher, Y. A. Y. (2025). Advancing sustainable performance in healthcare: mediating roles of green HRM and green innovation under green transformational leadership. Business Strategy and the Environment.
- 23. Nisar, F., & Rizvi, S. (2025). A Systematic Review of Health Care Waste Management Practices and their Impact on Environmental Performance in Developing Countries. Review of Applied Management and Social Sciences, 8(2), 785-804.
- 24. Rajkamal, S. V., Velmurugan, J. S., & Suryakumar, M. (2022). Green entrepreneurs challenges and innovation: the struggles they face. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 7(2), 7.
- 25. Sepetis, A., Parlavatzas, I., Zaza, P. N., Platis, C., Fotios, R., & Nikolaou, I. E. (2024). The Role of Organizational Behavior to Sustainable Health Care: The Case of Greece Environmental Health Insights, 18, 11786302241298788.
- 26. Somuah, C. O., Mensah, H. K., Okyere, G. A., Gyimah, P., & Kamil, N. M. (2025). A Systematic Review on Socially Responsible Human Resource Management: Implications for Social Value Creation. Corporate Social Responsibility and Environmental Management.
- 27. Tessema, D. H., & Yesilada, F. (2025). Impact of total quality management on patient revisit intention: the case of public hospitals in Addis Ababa, Ethiopia. Future Business Journal, 11(1), 1-14.
- 28. Tessema, D. H., Yesilada, F., & Aghaei, I. (2025). Enhancing pro-environmental behavior through green human resource management practices: evidence from Ethiopian private hospitals. Journal of Health Organization and Management.
- 29. Ud Din, N., Zhu, Y., Li, J., & Ahmad, I. (2025). Integrating corporate social responsibility initiatives with green human resource management: how green knowledge sharing drives sustainable practices?. Kybernetes.
- 30. Zahoor, H. (2024). Enhancing sustainable healthcare: a comprehensive review and implementation proposal for green human resource management in hospitals. Contemporary Approaches in Health Sciences. All Sciences Academy, 84-112.