

Green HRM and Environmental Sustainability in Healthcare - A Study of Public and Private Hospitals in Oman

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ABSTRACT: This study explores how Green Human Resource Management (GHRM) practices influence the performance of hospitals. It looks at several key areas, including green HR techniques, policies, and philosophies; the attitudes and roles of HR professionals toward environmental issues; and the development of a green organizational culture. The goal is to understand how these practices enhance hospital efficiency, employee satisfaction, and environmental sustainability. To gather data, the researchers used both surveys and interviews, collecting responses from 350 employees across six hospitals: both public and private. The findings reveal a strong positive relationship between GHRM practices and improved hospital performance. Among the various initiatives, digital HR systems, such as paperless operations, received the most support. While recycling and energy-saving efforts are present, they are not as widely implemented. Many hospitals also try to recruit employees who value environmental responsibility. However, the study also notes several challenges, including limited budgets, hectic work schedules, and insufficient managerial support for green initiatives. To address these issues, the researchers recommend that hospitals strengthen their GHRM policies, provide more environmental training, and foster a culture that embraces sustainability at all levels. This research is especially significant because it highlights GHRM practices within Oman's healthcare sector, an area that has received little attention so far. Moreover, it offers practical guidance for hospitals aiming to contribute to Oman's Vision 2040, particularly in achieving sustainable development goals.

KEY WORDS: Green HRM, Green environmental management, Organizational Culture, Healthcare, Hospitals.

1. INTRODUCTION

Oman's healthcare sector is growing and changing quickly as it aims to provide high-quality patient care, sustainability, and efficiency. Like many countries, Oman's hospitals face increasing pressure to adopt eco-friendly practices and tackle issues like waste management, energy use, and resource conservation. While there has been significant progress, a recent Quality and Patient Safety Report highlighted a decline in patient safety and quality culture. This shows a need to assess healthcare quality from both patients' and providers' viewpoints (Fatma Al Jabri et al., 2021). Oman serves a population of about 4.9 million, providing free healthcare for citizens and paid services for expatriates. Current national priorities focus on strengthening primary healthcare, improving service quality, and ensuring fairness in both public and private hospitals (Qasem Al Salmi et al., 2024). To support Oman Vision 2040, the Ministry of Health has been developing strategic plans and performance reports to direct future efforts. Oman has received international recognition for its healthcare successes, notably when the World Health Organization (WHO) ranked it first globally in 2001 for reducing infant mortality rates (Al Dhawi et al., 2007). To improve patient safety, the country introduced the Patient Safety Friendly Hospital Initiative (PSFHI) in several hospitals, emphasizing structured training, better documentation, and regular evaluations (Ahmed Al- Mandhari et al., 2018). The government continues to invest heavily in healthcare infrastructure, committing about OMR 275 million to various projects. These include expanding major hospitals and building new facilities like Sultan Qaboos Hospital in Salalah and Al Suwaiq Hospital. Additionally, major projects such as the \$1.5 billion Sultan Qaboos Medical City in Muscat and the \$1 billion International Medical City in Salalah aim to increase healthcare capacity and attract medical tourism.

Oman has also embraced digital change in healthcare. By 2015, 86% of government hospitals were connected to a central electronic health record system, which improved coordination and efficiency. Under the Ninth Five-Year Plan (2016–2020), Oman focused on developing medical cities, training the healthcare workforce, and creating sustainable funding models, even during

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economic challenges. These efforts show the nation's strong commitment to quality healthcare, innovation, and long-term sustainability. As of 2024, there are six hospitals, including government and private ones, under the Ministry of Health in the Ad Dakhliyah region. Nizwa has the most with two hospitals.

Green HRM in Hospitals

Green Human Resource Management (GHRM) focuses on adding environmental sustainability to HR policies and strategies. It plays a crucial role in improving both organizational efficiency and environmental responsibility. In hospitals, GHRM not only boosts sustainability but also enhances employee well-being, patient outcomes, and overall performance. In the Middle East, especially in Oman, awareness and adoption of GHRM are growing steadily. However, challenges remain due to limited resources and institutional support. Research indicates that GHRM leads to higher employee satisfaction, a better organizational reputation, and improved energy and waste efficiency (Ameer Saeed et al., 2021). Scholars note that GHRM can serve as a strategic advantage, connecting HR practices with environmental goals, fostering a sustainable organizational culture, and encouraging innovation and long-term performance (Aisha Alketbi & John Rice, 2024; Rabia Imran et al., 2024). GHRM has become a global response to increasing environmental concerns and international sustainability standards. As organizations shift away from solely financial goals to greener practices, there is a growing need to research how HR functions can actively support sustainability (Sabzar Ahmad Peerzadah et al., 2018).

In the healthcare sector, incorporating green practices into HR policies, such as eco-friendly recruitment, sustainability-focused training, and energy-efficient operations, can improve both environmental impact and hospital performance. Despite this potential, research on the relationship between GHRM and hospital performance in Oman is limited, which this study intends to explore. By studying how sustainable HR practices affect efficiency and environmental outcomes, the research provides practical insights for hospital management. It shows how GHRM can help hospitals become more effective, environmentally responsible, and performance oriented.

Key GHRM practices in healthcare include green recruitment, environmental training, sustainable printing and payroll systems, eco-friendly reward programs, and staff involvement in green initiatives (Hina Zahoor, 2024). These practices not only promote responsible hospital operations but also support Oman's Vision 2040 and global sustainability goals. Ultimately, GHRM helps healthcare organizations create a skilled, motivated, and environmentally conscious workforce. This leads to safer, greener, and more sustainable hospitals, benefiting both people and the planet (Anabela Batista Correia et al., 2024).

2. PROBLEM STATEMENT

Hospitals in Oman are under growing pressure to improve their performance while also tackling sustainability issues in a resource-limited setting. Green Human Resource Management (GHRM) practices, which combine sustainability principles with HR policies and procedures, could help address this challenge by improving operational efficiency and environmental responsibility. However, there is a major gap in research regarding the specific effects of GHRM practices on hospital performance in Oman. This lack of insight limits healthcare organizations' ability to fully utilize GHRM practices to improve key performance measures like employee productivity, patient satisfaction, operational efficiency, and environmental sustainability. As sustainable practices become more important in healthcare, it is crucial to explore how adopting GHRM strategies can positively affect hospital performance.

Understanding the connection between GHRM and organizational results will aid hospitals in creating effective HR policies that promote sustainability and improve operational success. The uncertainty about how GHRM influences factors such as employee well-being, environmental responsibility, and patient care quality poses challenges for hospitals trying to balance high-quality care with sustainable operations. This research aims to address this gap by scrutinizing the impact of GHRM practices on hospital performance in Oman. By offering practical insights, the study seeks to support the creation of more sustainable, high-performing healthcare institutions in Oman, ensuring that hospitals can implement green HR strategies that enhance both efficiency and environmental responsibility. Thereby the present study attempts to examine the following research questions:

1. What effect would green HRM have if it was adopted in healthcare organizations and adhered to by staff members in their work-life?
2. To what extent do green HR philosophies, practices, and policies encourage or prevent change regarding environmental challenges in hospitals?

3. OBJECTIVES OF THE STUDY:

1. To examine Green Human Resource Management techniques used at Workplace, in selected hospitals in Ad Dakhliyah region.
2. To what extent and how specific green HR philosophies, policies and/or practices that support or inhibit change around environmental issues particularly in selected Hospitals in Ad Dakhliyah region.

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3. To define the role of the HR professional in Green environmental management, specifically in specific Hospitals in Ad Dakhliyah region.
4. To assess how attitudes and practices toward environmental issues have changed in the workplace, especially in a few specific health care organizations in Ad Dakhliyah region.
5. To examine how current Green HRM techniques can be used to foster an environmentally friendly organizational culture and to provide suitable Green HRM policies for the Health Care Sectors.

4. RELATED WORKS

Research on Green Human Resource Management (GHRM) has gained significant attention across industries, including healthcare, as organizations worldwide strive to align performance goals with environmental responsibility. The reviewed studies reveal that while GHRM is widely recognized as a tool for improving sustainability and organizational performance, its implementation and impact vary greatly by context, sector, and region.

Several international studies highlight the growing importance of GHRM in driving both environmental and human capital outcomes. For example, Farida et al. (2023) found that GHRM, alongside green innovation, is a key determinant of sustainable hospital practices in Indonesia, while Pinzone et al. (2016) demonstrated that green HR practices significantly enhance employees' collective engagement in environmental behaviors. Similarly, Mousa and Othman (2020) and Rawashdeh (2018) showed that GHRM positively influences sustainable and environmental performance in healthcare organizations in Palestine and Jordan, respectively, though with moderate implementation levels. These findings collectively suggest that green recruitment, training, and employee involvement are among the most effective HR interventions for promoting sustainability.

However, many studies also acknowledge barriers to full GHRM adoption, such as limited budgets, lack of top management support, and inconsistent institutional policies, challenges particularly relevant in developing contexts. For instance, Correia and Shahzad (2024) emphasized that risk management strengthens the link between GHRM and innovation, pointing to the need for more structured frameworks to manage uncertainties in healthcare environments. Khan, Shah, and Hussain (2022), studying Pakistan's public sector, found that green HR practices improved both performance and social responsibility, suggesting that even modest initiatives can yield measurable benefits when embedded in daily operations.

Beyond healthcare, research from manufacturing and education sectors, such as Gupta & Jangra (2024) and Nurain et al. (2022), reinforces that GHRM not only improves environmental outcomes but also enhances employee engagement, job satisfaction, and organizational culture. Yet, much of the literature remains quantitative and cross-sectional, limiting our understanding of the deeper behavioral and cultural mechanisms that enable sustainable HR practices to thrive over time.

When looking specifically at Oman's healthcare sector, most prior research, by Al-Balushi & Khan (2017), Al-Mandhari et al. (2018), and Al-Jabri et al. (2021), focuses on patient satisfaction, service quality, and safety culture, rather than environmental sustainability or HR-led initiatives. Studies have documented important achievements, such as the implementation of the Patient Safety Friendly Hospital Initiative and the expansion of digital health systems, yet they reveal persistent challenges related to staffing shortages, unequal service distribution, and limited resource allocation issues that directly influence the feasibility of adopting green HRM practices.

Recent advancements, including lean management approaches (Al Fannah et al., 2019) and AI integration in hospitals (Al Mandhari, 2021), demonstrate Oman's growing commitment to healthcare modernization. However, sustainability-oriented HR policies remain underexplored, particularly in how they can shape long-term environmental and organizational outcomes.

Identified Research Gaps and Implications

Overall, the literature highlights a clear research gap in understanding the role of GHRM in healthcare sustainability, especially in the Omani context. While international studies confirm the positive influence of GHRM on performance and green innovation, few have examined how these practices translate into sustainable healthcare outcomes in developing nations. Moreover, most existing studies rely heavily on quantitative surveys, overlooking qualitative insights that could explain how employees perceive and experience green HR initiatives in daily hospital operations. This proposed study seeks to fill that gap by integrating both quantitative and qualitative methods to explore how GHRM practices can foster sustainable performance in Oman's hospitals. By grounding the research in Oman's unique socio-economic and cultural context, the study aims to produce practical, context-sensitive recommendations for healthcare administrators and policymakers.

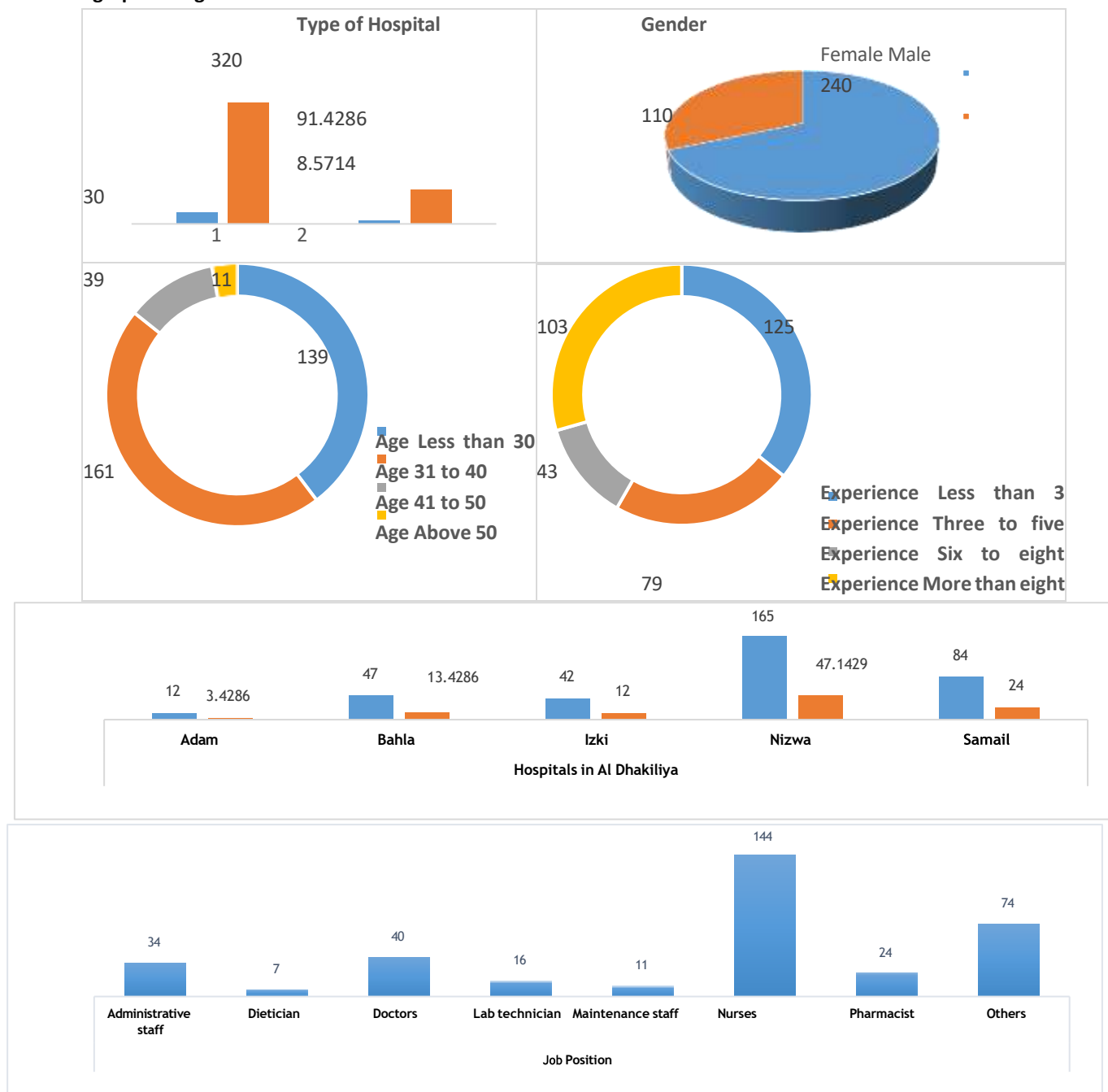
Ultimately, understanding how HR strategies can drive sustainability will not only help Omani hospitals improve efficiency and employee engagement but also align their operations with Oman Vision 2040, positioning them as leaders in environmentally responsible healthcare.

5. RESEARCH FRAMEWORK AND METHODOLOGY

This study used a mixed-methods approach that combines surveys and interviews to explore how Green Human Resource Management (GHRM) practices are implemented in hospitals in the Ad Dakhliyah region of Oman. It adopts an exploratory design to understand HR's role in promoting environmental sustainability, identify the challenges hospitals face, and examine how attitudes towards green practices have changed over time. The research involves employees from six hospitals, both government and private, in the wilayats of Nizwa, Bahla, Adam, Izki, and Samail. The total sample size is 350 respondents, which represents 10% of each hospital's workforce. A multistage sampling method is used. The region is first divided into areas, and then quota and convenience sampling select participants. Data was collected from primary sources, including structured questionnaires and interviews, as well as secondary sources such as reports, policy documents, and previous studies. Ethical standards were strictly followed to ensure informed consent, confidentiality, and data security throughout the process. The collected data was analyzed using descriptive statistics, correlation, and chi-square tests, with visual tools like tables and graphs for support. Finally, a triangulation approach will integrate quantitative and qualitative findings to ensure validity and provide clear insights into how GHRM contributes to sustainability and performance in Oman's healthcare sector.

6. RESEARCH FINDINGS AND IMPLICATIONS

6.1 Demographic Insights and Context:



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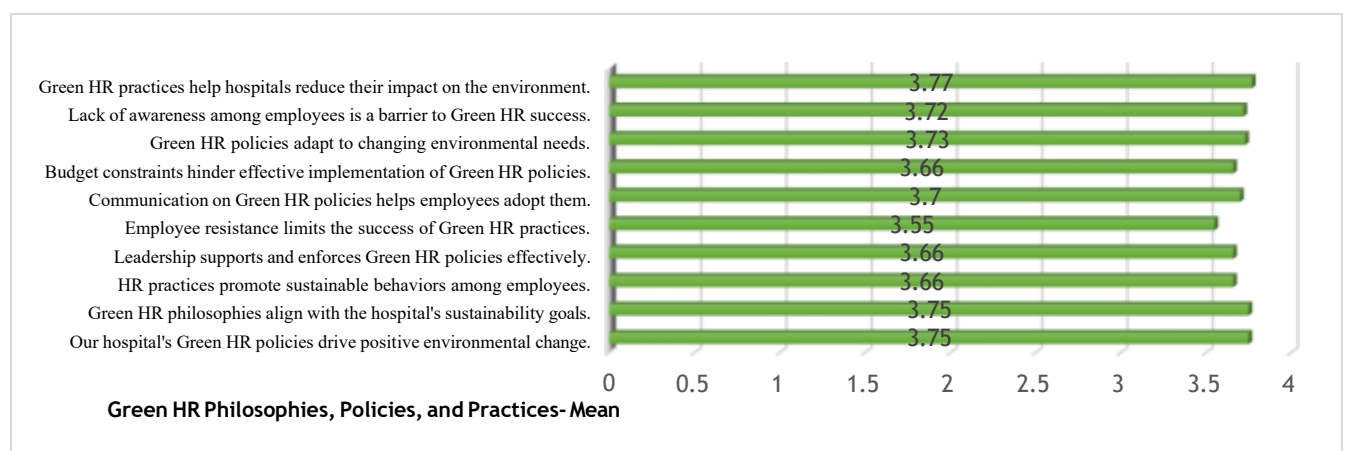
The findings from the descriptive and Likert-scale analyses provide useful insights into the current state and future direction of Green Human Resource Management (GHRM) practices in hospitals in the Ad Dakhliyah region. The demographic analysis shows that most respondents are female employees, making up 68.57%, and primarily work in public hospitals, which account for 91.43%. Nurses form the largest professional group at 41.14%. Most participants are relatively young, with 85.71% under the age of 40. Additionally, 35.71% have less than three years of experience. This suggests that GHRM initiatives are mainly experienced and interpreted by early- to mid-career professionals. The high percentage of local employees at 92.29% also emphasizes the need to customize sustainability policies to fit local cultural and institutional contexts.

6.2 Implications of Likert's Scale Mean Analysis:

Table No.1 - Likert Scale Mean Analysis for GHRM Techniques

Particulars	SDA No. (%)	DA -No. (%)	N- No. (%)	A- No. (%)	SA-No. (%)	Mean
Use of digital systems to reduce paper in HR processes.	0 (0%)	10 (2.86%)	56 (16.0%)	175 (50.0%)	109 (31.14%)	4.09
Active recycling programs.	16 (4.57%)	15 (4.29%)	95 (27.14%)	188 (53.71%)	36 (10.29%)	3.61
Adoption of energy-efficient practices	8 (2.29%)	15 (4.29%)	105 (30.0%)	158 (45.14%)	64 (18.29%)	3.73
Recruitment favoring environmentally conscious candidates.	8 (2.29%)	17 (4.86%)	83 (23.71%)	174 (49.71%)	68 (19.43%)	3.79
Encouragement of eco-friendly employee behaviors.	27 (7.71%)	17 (4.86%)	86 (24.57%)	181 (51.71%)	39 (11.14%)	3.54
Promotion of flexible work options to reduce environmental impact.	7 (2.0%)	25 (7.14%)	87 (24.86%)	174 (49.71%)	57 (16.29%)	3.71
Emphasis on energy-saving habits among staff.	14 (4.0%)	37 (10.57%)	102 (29.14%)	155 (44.29%)	42 (12.0%)	3.5
Procurement from eco-friendly vendors.	8 (2.29%)	26 (7.43%)	106 (30.29%)	152 (43.43%)	58 (16.57%)	3.65
Provision of resources for Green HRM implementation.	8 (2.29%)	38 (10.86%)	96 (27.43%)	156 (44.57%)	52 (14.86%)	3.59
Employee participation in green initiatives	10 (2.86%)	24 (6.86%)	99 (28.29%)	167 (47.71%)	50 (14.29%)	3.64

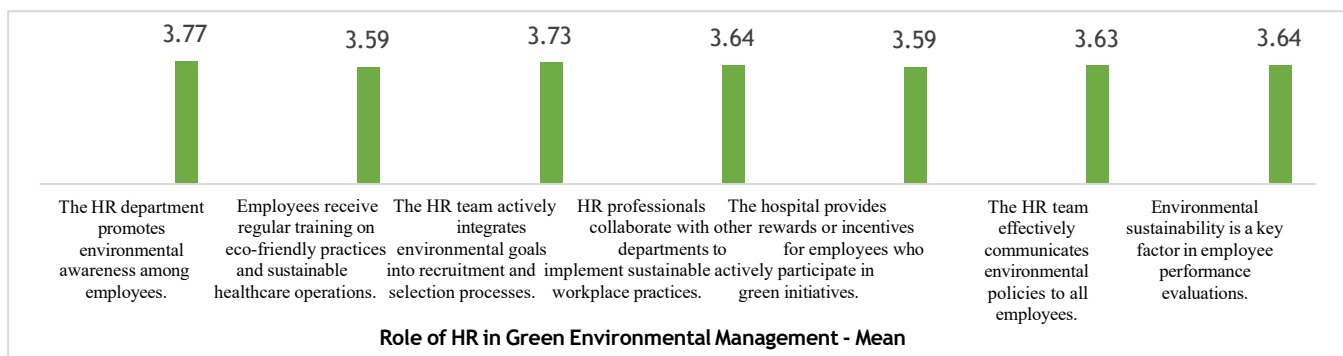
The analysis of Green HRM techniques shows that digital transformation, particularly paperless HR systems (mean = 4.09), is the most widely accepted green practice. This trend reflects hospitals' increasing shift towards more eco- friendly operations. However, the lower focus on energy-saving behaviors (mean = 3.5) indicates a need for improved awareness and organized behavioral programs to boost environmental responsibility among individuals.



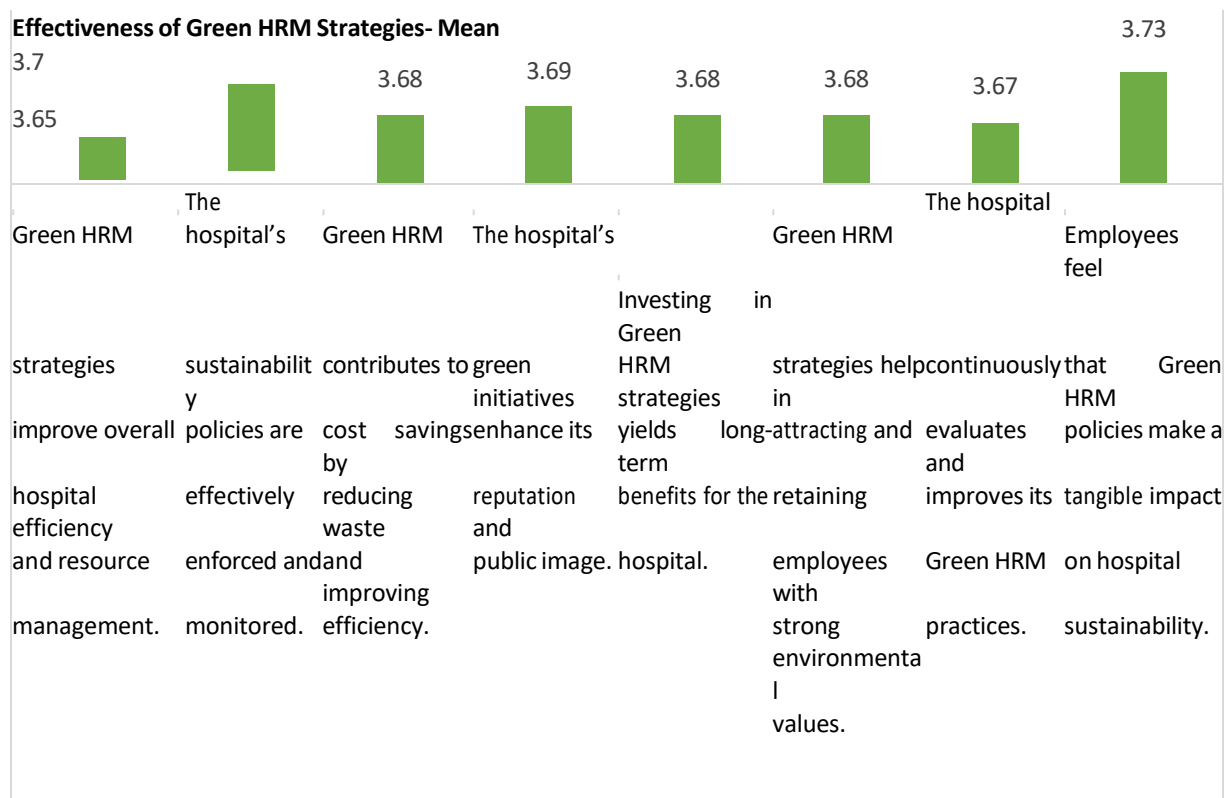
Regarding Green HR philosophies, policies, and practices, the results (highest mean = 3.77) suggest a common belief that these initiatives play a significant role in reducing hospitals' environmental impact. Yet, employee resistance (mean = 3.55) presents a major obstacle, highlighting the need for effective change management, communication, and motivation strategies when implementing sustainability-focused HR reforms. HR's role in environmental management also has a positive perception, especially

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in promoting environmental awareness (mean = 3.77).



However, eco-friendly training and reward programs (mean = 3.59) seem to be underdeveloped. This indicates that hospitals should invest more in structured green training and incentive programs to engage employees. Regarding attitudes and practices toward environmental matters, employees show an increasing eco-consciousness (mean = 3.82), but the perceived effectiveness of green programs in changing behavior (mean = 3.65) suggests that current initiatives might lack consistency or measurable impact.



Finally, the overall effectiveness of Green HRM strategies (highest mean = 3.73) confirms that most hospital employees see GHRM's positive effect on sustainability. Still, the lower perception of its impact on efficiency and resource optimization (mean = 3.65) highlights the need for hospitals to better connect GHRM with operational and performance outcomes.

6.3 Chi-Square Analysis and its Implications

Hypothesis (H₀):

- *There is no significant association between Type of hospital and the selected variables*
- *There is no significant association between gender and the selected variables*
- *There is no significant association between experience and the selected variables*
- *There is no significant association between Age and the selected variables*

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- *There is no significant association between Job position and the selected variables*
- *There is no significant association between Nationality and the selected variables*

Table No.2 – Chi Square Analysis Testing the GHRM Techniques and its associations

Particulars	Result	P-value
Digital systems minimize paper use in HR.	Associated (Reject Null Hypothesis)	5.81E-06
Recycling programs are well-established.	Associated (Reject Null Hypothesis)	3.58E-10
Energy-efficient practices are prioritized.	Not Associated (Accept Null Hypothesis)	0.059522082
Recruitment focuses on sustainability.	Associated (Reject Null Hypothesis)	4.65E-10
Employees engage in eco-friendly initiatives.	Associated (Reject Null Hypothesis)	9.05E-05
Flexible work arrangements reduce environmental impact.	Associated (Reject Null Hypothesis)	2.87E-13
The hospital promotes energy-saving behaviors.	Associated (Reject Null Hypothesis)	3.87E-09
Supplies are provided by environmentally responsible vendors.	Associated (Reject Null Hypothesis)	0.000116429
Supplies come from eco-friendly vendors.	Associated (Reject Null Hypothesis)	2.03E-09
The hospital supports Green HRM implementation.	Associated (Reject Null Hypothesis)	3.10E-08
Green HR policies drive environmental change.	Associated (Reject Null Hypothesis)	7.64E-06
Green HR aligns with sustainability goals.	Not Associated (Accept Null Hypothesis)	0.055148139
HR fosters sustainable employee behaviors.	Associated (Reject Null Hypothesis)	1.98E-20
Leadership enforces Green HR policies.	Associated (Reject Null Hypothesis)	0.002424353
Employee resistance hinders Green HR.	Associated (Reject Null Hypothesis)	1.70E-06
Clear communication aids Green HR adoption.	Associated (Reject Null Hypothesis)	0.039906172
Budget constraints limit Green HR execution.	Associated (Reject Null Hypothesis)	0.0077572
Green HR adapts to environmental changes.	Associated (Reject Null Hypothesis)	0.001137298
Low awareness hampers Green HR success.	Associated (Reject Null Hypothesis)	0.001028154
Green HR reduces hospital environmental impact.	Associated (Reject Null Hypothesis)	3.72E-05
HR promotes environmental awareness.	Associated (Reject Null Hypothesis)	0.012144967
Employees receive eco-friendly training.	Associated (Reject Null Hypothesis)	2.04E-05
HR integrates sustainability in hiring.	Not Associated (Accept Null Hypothesis)	0.080871887
HR collaborates for sustainable practices.	Associated (Reject Null Hypothesis)	1.27E-09
Employees get rewards for green participation.	Associated (Reject Null Hypothesis)	2.83E-10
HR communicates environmental policies.	Associated (Reject Null Hypothesis)	5.45E-11
Sustainability factors in performance evaluations.	Associated (Reject Null Hypothesis)	6.95E-12
Eco-friendly behaviors have increased.	Not Associated (Accept Null Hypothesis)	0.098589686
Management commitment to sustainability has grown.	Associated (Reject Null Hypothesis)	2.65E-11
Staff support green workplace initiatives.	Not Associated (Accept Null Hypothesis)	0.595776784
Employee attitudes toward sustainability have improved.	Associated (Reject Null Hypothesis)	0.031043543
The hospital invests more in green initiatives.	Not Associated (Accept Null Hypothesis)	0.387856797
How does your hospital promote sustainability through HR?	Not Associated (Accept Null Hypothesis)	0.086729322
How effective is Green HRM in fostering eco-friendly culture?	Not Associated (Accept Null Hypothesis)	0.617676694
How often are employees encouraged to join sustainability programs?	Associated (Reject Null Hypothesis)	5.37E-19
Do Green HRM policies align with organizational goals?	Associated (Reject Null Hypothesis)	0.000507601
How satisfied are you with HR's green support?	Not Associated (Accept Null Hypothesis)	0.164683301

The chi-square tests identified several significant links between organizational and demographic factors and the adoption of Green Human Resource Management (GHRM) practices in hospitals. The results emphasize that both institutional context and employee traits notably influence sustainability efforts in the healthcare industry. Hospital types showed significant differences in areas like digitalization, recycling, energy efficiency, employee participation, and leadership support for sustainability. Private hospitals were generally more proactive in implementing environmentally focused HR and operational practices. However, no notable differences were observed in aspects such as green recruitment and communication of green policies, indicating these are driven more by broad institutional policies than by ownership type.

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Hospital location also affected most green practices, with regional variations seen in recruitment, leadership engagement, and communication of sustainability initiatives. This suggests that local administrative goals and infrastructure shape environmental performance, although digital adoption was consistent across different areas. Regarding gender, significant differences were found in awareness, behavior, and involvement with green initiatives, pointing to differing views of sustainability among male and female employees. Nonetheless, recycling and reward-related practices were similarly perceived by both groups.

Experience and job position were important factors influencing green engagement, with longer serving and higher-level employees showing greater awareness and support for sustainability goals. This highlights the importance of professional maturity and leadership roles in fostering green commitment. Age also impacted engagement, with younger employees exhibiting stronger participation in awareness and recruitment efforts, while older employees contributed more to policy-related activities. Certain areas, like energy efficiency and green alignment, remained consistent across age groups, reflecting the integration of sustainability into organizational norms. Finally, nationality showed significant links in most areas, highlighting the cultural and experiential diversity in perceptions of green practices. However, convergence was seen in fields like energy efficiency and eco-friendly behaviors, indicating growing cross-cultural awareness of sustainability.

Overall, these findings show that GHRM adoption results from a complex interaction of organizational type, demographic features, and contextual factors. Hospitals aiming to improve their sustainability should develop strategies tailored to their specific context, considering employee diversity, leadership involvement, and localized implementation to foster an inclusive, organization-wide green culture.

6.4 Correlational Analysis and its implications:

Table No.3 – Correlational Analysis Testing the GHRM variables and its associations

Correlation (Green HRM Effectiveness & HR Support Satisfaction): 0.233, p-value: 1.0312151006164496e-05
Correlation (Sustainability Promotion & Recycling Programs): 0.505, p-value: 5.2851674343106734e-24
Correlation (Management Commitment & Eco-friendly Behaviors): 0.319, p-value: 1.071464605682751e-09
Correlation (Leadership Support & Eco-friendly Behaviors): 0.212, p-value: 6.211718842205803e-05
Correlation (Training & Sustainability Participation): 0.276, p-value: 1.606433571502905e-07
Correlation (HR Communication & Sustainability Participation): 0.167, p-value: 0.0017579121115531182
Correlation (Resource Allocation & Staff Support): 0.386, p-value: 7.080112057163628e-14
Correlation (Budget Constraints & Sustainability Promotion): 0.368, p-value: 1.2176532385811762e-12
Correlation (Awareness & Green HR Policy Alignment): 0.233, p-value: 1.0865779434016382e-05
Correlation (HR Promotion & Environmental Impact Reduction): 0.237, p-value: 7.4698230209295425e-06
Correlation (Rewards/Incentives & Eco-friendly Behaviors): 0.384, p-value: 9.116091345009734e-14

The results of the study provide several key implications for strengthening Green Human Resource Management (GHRM) practices within hospitals. The strong positive correlation between sustainability promotion and recycling programs ($r = 0.505$, $p < 0.001$) indicates that structured sustainability initiatives significantly enhance environmental performance, suggesting that hospitals should integrate green objectives into their operational

strategies. The moderate correlations between management commitment and eco-friendly behaviors ($r = 0.319$, $p < 0.001$) and leadership support and eco-friendly behaviors ($r = 0.212$, $p < 0.001$) highlight the critical role of leadership in fostering a sustainability-oriented culture among employees. Furthermore, the positive relationships between resource allocation and staff support ($r = 0.386$, $p < 0.001$) and rewards/incentives and eco-friendly behaviors ($r = 0.384$, $p < 0.001$) show that providing adequate resources and recognition encourages greater participation in green initiatives. The correlation between training and sustainability participation ($r = 0.276$, $p < 0.001$), along with HR communication and sustainability participation ($r = 0.167$, $p < 0.01$), demonstrates that continuous training and effective communication are vital for improving environmental awareness and employee engagement.

Moreover, the relationship between awareness and Green HR policy alignment ($r = 0.233$, $p < 0.001$) emphasizes the need to align HR policies with environmental goals and ensure that staff clearly understand them. Interestingly, budget constraints showed a moderate positive correlation with sustainability promotion ($r = 0.368$, $p < 0.001$), suggesting that even with limited financial resources, strategic planning can sustain environmental progress. Lastly, the positive link between Green HRM effectiveness and HR support satisfaction ($r = 0.233$, $p < 0.001$) indicates that effective green HR initiatives not only promote sustainability but also enhance employee satisfaction and organizational performance.

Overall, these results underscore that leadership commitment, adequate resource allocation, training, communication, and

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incentives are essential for developing a strong GHRM framework that supports both environmental and operational excellence, aligning with Oman's Vision 2040 goals for sustainable healthcare development.

7 CONCLUSION AND RECOMMENDATIONS

Sustainability has become a critical priority in healthcare, an industry known for high energy use and substantial waste. In Oman, with the healthcare sector rapidly expanding under Vision 2040, integrating Green Human Resource Management (GHRM) is essential for fostering environmentally responsible and high-performing hospitals. This study examined how GHRM practices can support both sustainability and organizational outcomes in public and private hospitals across the Ad Dakhliyah region, focusing on workforce engagement, productivity, and patient care. The research explored five key dimensions of GHRM.

First, regarding green HR techniques, hospitals are adopting practices such as digital HR systems and energy-saving measures, but gaps remain in structured green recruitment, waste management, and staff-led sustainability initiatives. To address this, hospitals should implement dedicated recycling programs, structured onboarding with a green focus, and staff participation in eco-initiatives such as carpooling or clean-up drives.

Second, the study assessed the impact of green HR philosophies and policies. While some policies exist, they often lack consistency, monitoring, and active engagement from employees. Strengthening leadership involvement, standardizing policies, regularly evaluating their effectiveness, and embedding sustainability targets in performance evaluations are key recommendations to drive meaningful change.

Third, the role of HR professionals in green management was examined. Findings suggest that HR departments have the potential to lead sustainability efforts but are often underutilized. Empowering HR through environmental management training, strategic involvement in decision-making, and dedicated resources for green projects can enhance their impact. Collaboration between HR and other departments is also critical to share responsibility for sustainability goals.

Fourth, the study highlighted evolving workplace attitudes. Employees, especially younger staff, are increasingly aware of environmental issues, yet consistent institutional support is needed. Regular workshops, motivational campaigns, recognition programs, and peer-led green initiatives can help embed eco-friendly behavior into daily routines.

Finally, regarding organizational culture, hospitals with strong leadership support and recognition of green efforts demonstrated higher engagement and alignment with sustainability goals. To build a robust green culture, leadership should model sustainable behavior, integrate green values into mission and vision statements, celebrate environmental initiatives, and create channels for employees to suggest improvements.

Overall, this research demonstrates that GHRM is vital for the future of healthcare in Oman. By embedding sustainability into HR practices, hospitals can improve operational efficiency, enhance employee satisfaction, and contribute to national sustainability targets. Policymakers and hospital management are encouraged to adopt a strategic approach to GHRM, investing in training, policy development, and culture-building initiatives to make sustainability a core part of healthcare delivery.

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