

Greener Future for HR: A Comprehensive Review of Green HRM Practices in its Functions in Global Industrial Sectors

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ABSTRACT:

This systematic review study highlights future objectives for the discipline and comprehensively reviews the present research on green human resource management (GHRM). The writers thoroughly studied the literature on GHRM and looked at pieces appearing in peer-reviewed publications between 2011 and 2023. The association between GHRM and environmental sustainability, the function of GHRM practices in fostering employee pro-environmental behaviour, and the influence of GHRM on organizational results are some of the critical study subjects highlighted in the article. The authors also point out several gaps in the literature, including the demand for more significant empirical Research on GHRM practices and HRM duties. The study concludes by discussing potential future research areas for GHRM, including creating a thorough theoretical foundation and analyzing GHRM's contribution to advancing ethical business practices.

Keywords: Green Human Resource Management, HRM Functions, GHRM Practices

1. INTRODUCTION:

Globalization and industrialization have transformed the world, catalyzing economic and financial advancement. These advancements have made people's daily lives more convenient and enjoyable. However, more than this, progress is needed to bring satisfaction to humans. It is essential to incorporate safe and healthy practices into their lives.

Maslow's hierarchy of needs theory suggests that humans have a hierarchy of needs, with physiological needs at the bottom and self-actualization needs at the top. Once their basic physiological needs are met, humans strive to meet their safety needs, followed by their love and belonging, esteem, and self-actualization needs.

In today's world, it is becoming increasingly clear that safe and healthy practices are essential for humans' self-actualization needs. Humans cannot truly be happy and fulfilled without living in a safe and healthy environment. Therefore, humans must embrace safe and healthy business practices to live happy and healthy lives, using sustainable practices that protect the environment and creating safe and healthy workplaces for employees. By taking these steps, humans can ensure that they are meeting their own needs but also the needs of future generations. They can create a world where everyone can thrive, both physically and mentally.

Implementing green techniques, such as green management, green accounting, green marketing, green retailing, and green human resource management, into a company was given more attention. Many definitions of "green management" are used in environmental literature. The objective is to emphasize a striking balance between corporate growth for wealth creation and protecting the environment for the prosperity of future generations (Daily & Huang, 2001). The importance of human resource management in environmental management has drawn growing focus from the academic community in recent years (Ercantan & Eyupoglu, 2022) given that the management of human resources most strongly influences the effectiveness of environmental efforts (Benevene, Buonomo, I.2020). Green Human Resource Management (GHRM) greening aims to protect the administrative staff and preserve a substantial knowledge base using the most economical and environmentally responsible means possible. (Tang, Chen, Jiang, Paille & Jia, 2018) (Renwick, Redman & Maguire, 2013). According to Khan (2020), GHRM uses human resource management principles to encourage organizations to utilize resources sustainably and foster a safe environment. Green Human Resource Management Practices (GHRMPs) and knowledge asset preservation are the two fundamental pillars of GHRM. Training is needed to improve employee knowledge, capabilities, and environmentally friendly behaviour, and there must be a conscious, sustainable, proactive, and positive organizational culture (Mukherji & Bhatnagar, 2022). Senior management must understand the value of environmental practices in managing human resources and supports to develop a defined management practice strategy, focusing on positive outcomes from GHRMPs (Mahdy, Alqahtani & Binzafarah, 2023). GHRM is crucial to the organization's ability to operate the rest of the procedures deliberately and effectively. GHRM is an initiative to provide HRM solutions for reducing potential harm from company operations in all business processes. (Ahmad, Jaaron & Bon, 2018). Current GHRM policies and procedures implemented by top management encourage employees to be responsible for the environment and teamwork in this area, along with the hiring, satisfaction, encouragement of self-improvement, and mentorship of employees following the institution's goals (Pimonratanakan et. al, 2017; Pham, Hoang & Phan, 2019).

Employers should give more prospects, pay fairly, and incentives to safeguard the environment as part of GHRM. It also emphasizes extending employee opportunities. GHRM is essential to the development of eco-friendly practices and guidelines inside institutions. (Chaudhary, 2019). Green HR policies additionally emphasize individual learning and workers' environmental competencies. (Govindarajulu & Daily, 2004; Madsen & Ulhoi, 2001; Ramus, 2001; Ramus, 2002).

In this scenario, the present study focuses on the findings and research methodology used in papers from 2011 to 2023. The current study aims to present a thorough understanding of GHRMPs and pinpoint the primary advantages and added value of using these practices.

The study contained several steps, which was a systematic evaluation of the literature, beginning with an introduction that gives an overview of GHRM, Followed by the objective of the study, Methodology and Content Analysis, Conclusion, Limitations and Future work.

2. OBJECTIVES OF THE STUDY:

Organizations increasingly recognize the need to adopt sustainable practices to reduce their environmental impact and improve their bottom line. Over the past few years, there have been several significant discoveries in the field of GHRM. These discoveries have shed light on the

factors that influence the success of GHRMPs, and they have also provided new insights into the relationship between GHRM and organizational performance.

By adopting green practices, organizations can reduce their environmental impact, improve their bottom line, and create a more sustainable future. The key focus areas in GHRMPs include green recruitment and selection, green training and development, green performance appraisal, green compensation and reward management, and green employee involvement. By examining these focus areas, we can better understand how GHRM can improve organizational performance and create a more sustainable future.

- To examine the state of the area of GHRM study at the time of writing.
- To highlight significant discoveries and research techniques used in GHRM.
- To identify the essential role of GHRM in successful organizational development.
- To identify and analyze the key focus areas in GHRM Ps, such as Green Recruitment & Selection, Green Training and Development, Green Performance Appraisal, and Green Employee Involvement.

The study aims to uncover the current state of GHRM research, highlight significant findings and research methodologies used in GHRM, pinpoint the crucial function of GHRMPs in successful organizational development, and identify and examine key areas of focus in GHRMPs.

3. METHODOLOGY AND CONTENT:

The Research study follows with two sub-areas like Distribution of Reviewed Journals focused on the data collected from different journals with a line diagram, and Data Analysis, focused on the review table and GHRMPs implemented in different organizations with a Bar chart which represents in Figure 1.

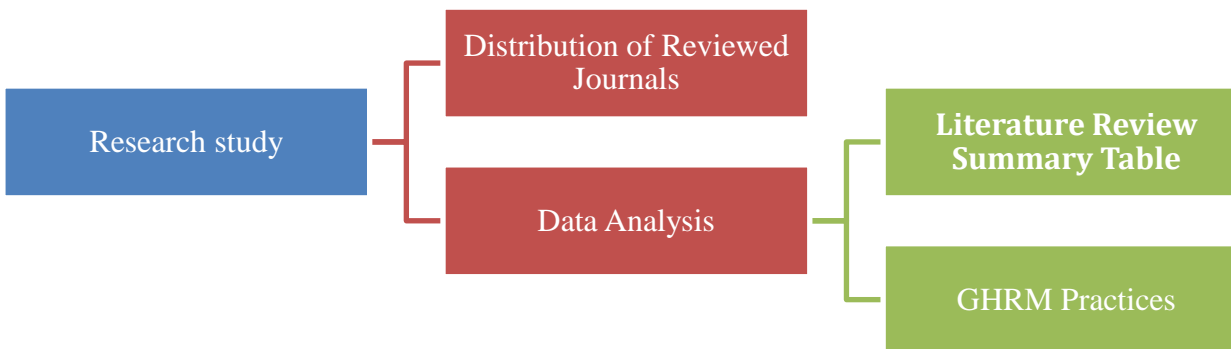


Figure 1: Methodology of Work

3.1 DISTRIBUTION OF REVIEWED JOURNALS:

This research is based on a systematic literature review, so the study began by collecting data related to GHRM from 2011 to 2023 (Hannah, 2019). The data were collected from 40 different articles published in reputed journals like the International Journal of Operations & Production Management, Journal of Cleaner Production, Journal of Administrative and Business Studies, International Journal of Manpower, Corporate Social Responsibility Environment Management, Journal of World Business, Journal of Management Studies, International Journal of Management Science, International Journal of Management Reviews, IOSR Journal of Business and Management, International Conference on Sociality and Economics Development IPEDR, The International Journal of Human Resource Management, International Journal on Recent and Innovation Trends in Computing and Communication, Sri Lankan Journal of Human Resource Management, International Journal of Enhanced Research in Management & Computer Applications, Journal of Emerging Technologies and Innovative Research, The Journal of Social Sciences Research, Academic Research Publishing Group, Journal of Business Research, Twelfth AIMS International Conference on Management, Benchmarking: An International Journal, Sustainability, International Journal of Environment, Workplace and Employment, Frontiers in Psychology, Asia Pacific Journal Human Resources, Environmental Science and other reputable journals; most belong to Science Direct, Emerald, Taylor Francis, Wiley, MDPI, Springer, and Sage publishers. Among these, ten articles are considered from Sustainability Journal, five are taken from the Journal of Manpower, each three from the business environment and business research, each three from frontier psychology and Journal of cleaner production and the remaining journals, each 1 and 2 from Journal of innovation Management are to be considered for reference. These articles are useful for analyzing how GHRMPs are implemented in different organizations, including manufacturing, airline, Hotel Industry, and Health care centres. The data is represented with the help of a line graph, Figure 2.

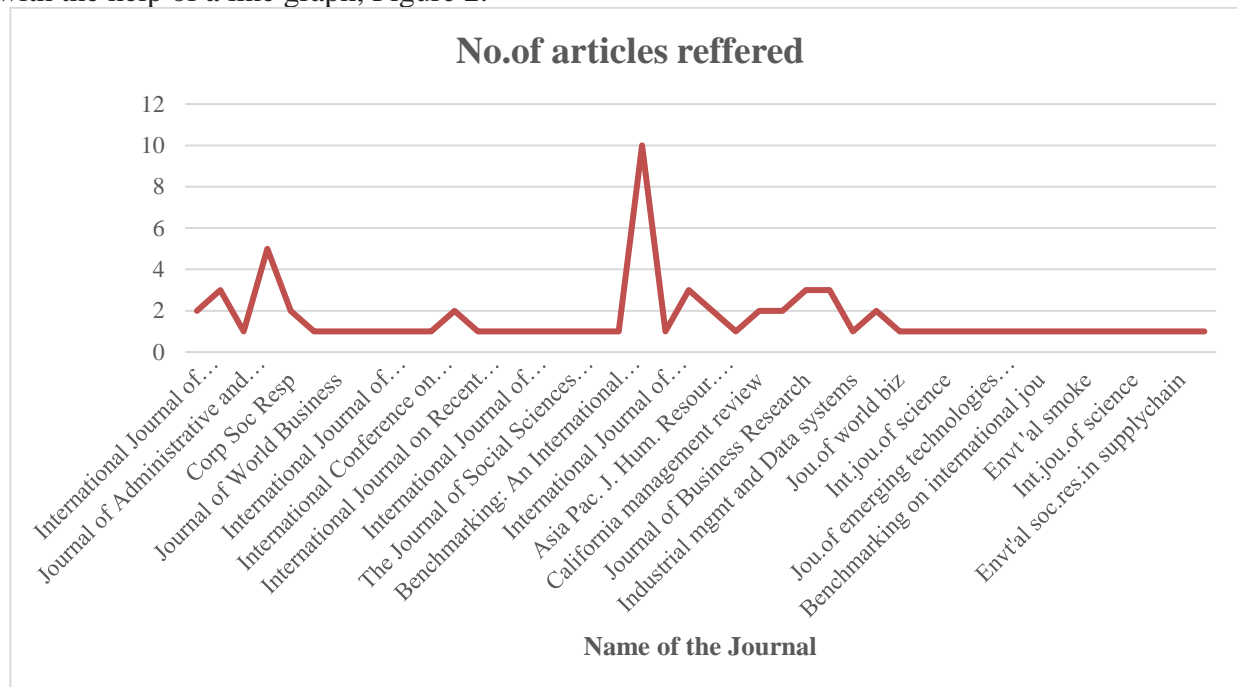


Figure 2: Diagrammatic representation of journals referred

3.2 DATA ANALYSIS:

The present study focused on 40 articles and mentioned the method of the study, the sample size, the main findings and the GHRMPs.

3.2.1 Literature Review Summary Table:

Table 1 summarizes the research method, sample size, and main findings of the 40 articles.

Table 1: Represents the Author’s details, methodology, and main findings.

S. No.	Author Name and Year	Research Method with Sample Selection	Main Findings
1	Sudin et.al (2011)	For this paper, the researcher used the analytical research method, and the data gathered here is secondary data.	Assessment-based HR Interventions, environmental management systems (EMS), green intellectual capital (GIC) and corporate environmental citizenship (CEC) should be integrated.
2	Renwick et.al (2013)	For this paper, the researcher used the archival research method, and the data gathered here is secondary data.	Organizations need to develop Green abilities and provide opportunities for employees to involve in Environmental Management.
3	Geraint Harvey et.al (2013)	The researcher used empirical research to analyze the data with a sample of existing airline employees from the U.K.	The study investigates the indirect effects of HRM on employee job satisfaction, dedication, and involvement.
4	Sushma Rani et al. (2014)	The researcher used to write this review paper with descriptive analysis with secondary data collected from 15 articles published in reputed journals.	Green HRM is essential for successful organizational improvement.
5	Nachiappan Subramanian et.al (2015)	The researcher used empirical research for a sample of 1230 employees using Robert's competencies framework and structural equation modelling	Acquired Green Competencies (G.C.s) contribute significantly more to an individual's effective G.C.s than natural ones.

		at industries in the Chinese coastal city of Ningbo.	
6	Anton Arulrajah et.al (2015)	The researcher used the archival survey method for analyzing the data.	While green human resource management practices can play a role in achieving environmental sustainability, organizations should focus on green initiatives that have a broader impact.
7	Marta Pinzone et.al (2016)	For this paper, the researcher used the Survey method and data collected from 82 NHS(National et al.) using Path analysis and Boot Strapping Method.	Employees equipped with the skills and knowledge to make a difference are emotionally attached to their organization's goals, and work in organizations that focus on green human resource management practices are likelier to engage in collective organizational citizenship behaviours (OCBEs).
8	Ren et al. (2018)	The researcher used Longitudinal Research.	This review emphasizes the need for a refined conceptualization and measurement of GHRM, proposing an integrated model addressing antecedents, consequences, and contingencies. It builds on strategic HRM literature, employee perceptions, contextual implications, and alternative theoretical approaches.
9	Fernández et.al (2017)	The researcher used a hybrid approach with a sample of 9 CDM-registered companies for PDD desktop analysis and 12 companies for Case studies.	The authors discovered that CDM activities affect the integration of environmental management into HRM practices, or "green HRM," in Brazilian enterprises by enhancing recruiting, human resource participation, and training procedures.
10	Sabzar Ahmad Peerzadah et.al (2018)	The researcher used the archival survey method for analyzing the data.	Employees can be motivated to adopt Green HRM practices, leading to increased productivity, resource sustainability, reduced waste, improved attitudes, work/private lives, lower costs, employee performance, and retention. It helps businesses reduce employee carbon footprints and encourages businesses to

			prioritize green HRM functions.
11	Sonal Singh Rathi et al. (2018)	The researcher used the archival survey method for analyzing the data.	Organizations that are environmentally receptive, resource-organized and socially responsible go green.
12	Ameer Farhane Bin Mohd Arzaman et.al (2018)	The researcher used a Qualitative research method to analyze the data with a sample of four manufacturing companies in Malaysia.	Several firms are implementing Green HRM practices without being aware of it.
13	Pothuraju Vijaya Lakshmi (2018)	The descriptive approach was used to collect data from a sample of three multinational organizations and publicly accessible literature from reputable sources.	Green HRM can enhance corporate image and brand.
14	Tang. et.al (2018)	This research paper is a conceptual review method with structural dimensions.	Green human resource management (GHRM) is a broad and multifaceted field encompassing five key dimensions green recruitment and selection, green training, green performance management, green pay and reward, and green involvement.
15	Helena Mateus Jerónimo et.al (2019)	An empirical study with a sample of 275 Portuguese employees was analyzed through the fuzzy-set qualitative comparative analysis. (fsQCA) is used by the researcher.	Green recruiting and green training are the main pillars of the ORS (organizational rationale for sustainability). While younger employees need green training, elderly employees especially need green hiring.
16	Leidner et.al (2019)	Socially Constructive method	Contextual factors influence GHRM practices, and sustainability advocates may not align with policies, leading to discrepancies between attitudes and behaviours.
17	Shah et al. (2019)	The researcher used Empirical Research to test for validity and reliability using a sample of 300 employees from	The research findings revealed that GHRM practices positively and significantly impact employee environmental commitment, job

		different organizations in Pakistan.	satisfaction, and organizational commitment.
18	Ridhi Sarma and Neha Gupta (2020)	The researcher used the Case study method in HCL Technologies.	Green Practices include the methods, duties, models, and ideas of managing human resources to ensure environmental sustainability.
19	Raut et al. (2020)	The researcher used TISM methodology with a sample of 5 of 15 specialists from the academic and research fields, six from the industry/field and was now employed in senior manager-level positions in well-known companies. In addition, four came from state and federal agencies.	The indicators included in the current study, such as "Green organizational culture," "Green strategy adoption," and "Green training and development," were shown to be the most important ones. In contrast, "Green employee relations and union management" were found to be heavily dependent on the other indicators.
20	Helena Mateus Jerónimo et.al (2020)	The researcher used a fuzzy-set qualitative comparative analysis with a sample of 275 Portuguese employees.	Green hiring and training are essential for older and younger workers, but more than green compensation is needed.
21	Bahuguna et.al (2020)	The researcher used which were analyzed using Bibliometric methods sample consisting of 398 articles,	GHRM practices have four main themes: the relationship between environmental performance, the role of practices in promoting environmental behaviour, the influence of organizational factors, and the impact on employee well-being.
22	Shafaei et.al (2020)	Quantitative research with partial least square structural equation modelling and covariance-based structural equation modelling is done for a sample of 206 respondents at the organizational level and 508 respondents at the individual level in the tourism/hotel industry.	Organizational environmental efforts positively correlate with green HRM management, environmental culture, and job happiness.

23	Jamal et.al (2021)	The researcher used Experimental Research on 138 human resource professionals in major industrial sectors of a developing country.	While green training may not directly benefit corporate sustainability, green employee engagement, pay and rewards, and recruitment and selection, are vital in promoting a sustainable workplace culture.
24	Yasmeen et.al (2021)	The researcher used Mixed Method Approach with a sample of 124 survey respondents from Indian Manufacturing Companies.	Green HRM practices significantly improve environmental performance with environmental sustainability culture.
25	Guillot-Soulez et.al (2021)	The researcher used an Experimental design with a sample of 158 survey respondents with Measures of central tendency, and Dispersion followed as tools to analyze the data.	Green certification can increase the company's appeal to potential employees.
26	Iftikhar Umer et. al (2021)	513 employees in Hotel Industry	The employee environmental dedication mediates the association between green HRM practices and Green Service Recovery Performance) (GSRP)
27	Ercantan Ozlem et.al (2022)	A sample size of 400 students was utilized for an experimental study that collected cross-sectional data on those students.	GHRM practices are essential for achieving sustainability in H.R. departments.
28	Ribeiro et.al (2022)	Quantitative Research Method with a sample of 235 employees from several Portuguese tourism organizations	GHRM should encourage green behaviours to achieve sustainable development goals.
29	Hossari et. al (2022)	The researcher used a qualitative exploratory study for a sample of 4 Companies and & H.R. Managers.	This study reveals that GHRM is still at a primitive stage in Moroccan ISO14001-certified companies.
30	Mirčetić et.al (2022)	The results of an empirical investigation were tested	Green competencies will influence people's willingness to engage in green

		using correlation, regression, and ANOVA on a sample of 516 respondents from Serbian institutions of higher learning.	activities.
31	Ali M et.al (2022)	Survey Based research for a sample d of 231 employees is used to test hypotheses by applying partial least square structural equation modelling (PLS-SEM)-based approach using SmartPLS.	This research found robust linkages between employee commitment, environmentally responsible behaviour, and environmental performance.
32	Rao MS et.al (2022)	Survey-Based research The quantitative cross-sectional study design approach has been adopted, and the data was generated from 330 academicians from various educational intuitions in Andhra Pradesh, India and analyzed through testing the Hypothesis with the help of SPSS 25.	Green human resources management is still relatively new in most academic institutions. However, several initiatives for the nation's educational system were included in the Indian government's most recent Budget, 2022, addressing the environment.
33	Kuo Y K, et.al. (2022)	A quantitative research method using survey analysis and structural equation modelling was used to collect data from 500 employees working in different organizations.	Green HRM might influence employees' green creativity and environmental performance, which can be useful information for policymakers and practitioners.
34	Awwad Al-Shammari AS, (2022)	A quantitative research method using survey analysis and structural equation modelling was used to collect data from 335 small and medium-sized businesses.	A significant positive association between GHRM practises, and the study discovers green innovation and sustainable performance.
35	Ahmed et al. (2022)	Quantitative research with 169 survey respondents who are working in the Hotel industry	Study shows that green performance management and compensation positively impact hotel employees' pro-environmental behaviour, with green self-efficacy acting as a mediator.

36	Mukherji, A. et.al (2022)	This research paper is a narrative style based on 38 recent empirical articles.	The literature on the effects of environment-related H.R. activities on boosting firm-specific social outcomes and developing long-term capacities supports the study's findings.
37	Ercantan, O. et.al. (2022)	Utilizing Analysis of Moment Structures (AMOS) software version 24.0, confirmatory factor analysis was performed on the data in addition to factor, regression, and correlation analyses for a sample of 342 survey respondents.	Green human resource management influences employees' green task-related and voluntary behaviours through psychological climate perception.
38	Lashari IA, (2022)	Experiment research with a sample of 223 survey respondents using the methods like PLS_SEM	According to the report, businesses using green HRM techniques are considered ethical and responsible. Sustainable H.R. practices can help businesses build their reputation and attract customers who care about environmental sustainability.
39	Shafaei et.al (2020)	Five hundred-eight responses from full-time Australian employees were gathered for the study using a quantitative research methodology.	Particularly, green HRM has a good relationship with innovative work behaviour among employees. Job satisfaction is a mediator in this interaction, which is strengthened through inclusive leadership.
40	Mahdy et. al. (2023)	This research paper is the researcher refers to a literature review paper with 137 articles.	Given the importance of maintaining the environment worldwide, green human resource management techniques are the greatest way to preserve enterprises.

From Table 1, the study found a need for more consensus among researchers on the definition and measurement of GHRM. Additionally, many firms implement GHRMPs without awareness of the theoretical foundations and factors influencing their effectiveness. Organizations that embrace GHRM can reap several benefits, including increased productivity, resource sustainability, reduced waste, improved employee attitudes, and enhanced corporate image and brand.

GHRM focuses on five key dimensions: green recruitment, selection, training, performance management, pay and reward, and involvement. By focusing on these dimensions, organizations can reduce their carbon footprints, promote environmental responsibility, and create a more sustainable workplace.

GHRM is essential for both younger and older employees. Younger employees are increasingly drawn to organizations that strongly commit to sustainability. In comparison, older employees may be more motivated to adopt green practices if they can participate in environmental management.

GHRMPs can also have a positive impact on employee well-being. Green HRM can help employees feel more engaged and productive by reducing stress and improving morale.

In addition to employee benefits, GHRM can help organizations build reputations and attract environmentally conscious customers. As more and more consumers become aware of the environmental impact of their purchases, businesses that adopt GHRMPs will be well-positioned to succeed in the future.

3.2.2 Green HRM Practices:

A careful and comprehensive research of the literature related to GHRM found that there needs to be a consensus on the practices of GHRM. There is an agreement between them in some practices but a difference in others. Some authors concentrated solely on four practices GRS (Green et al.), GTD (Green Training Development), G.I. (Green Involvement), and GPM (Green Performance Management). However, several researchers focused on other practices, including job analysis, workforce planning, orientation, health and safety, employee relations, employee discipline, organizational behaviour, commitment, etc. The study relates these practices to others and illustrates them through Figure 3.

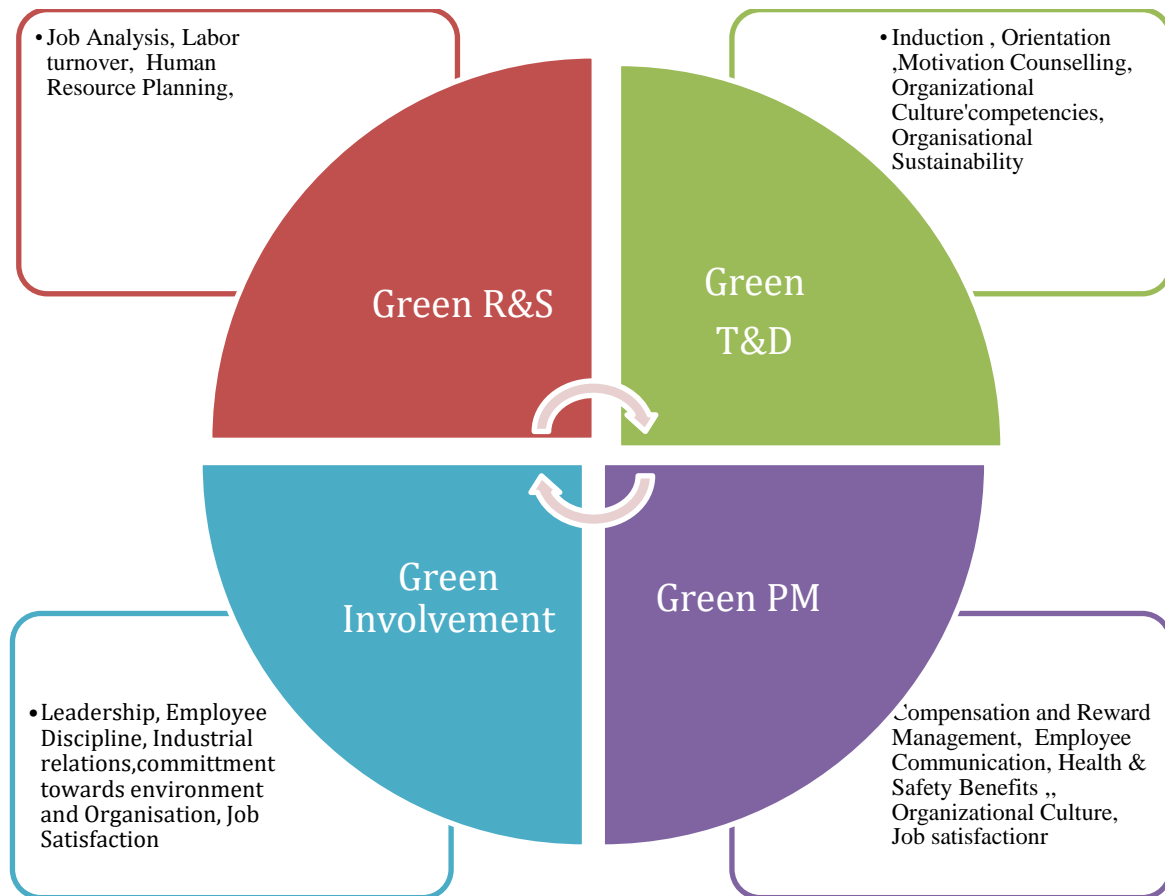


Figure 3 Green HRM Practices

3.2.2.1 Green Recruitment and Selection:

In the "war for talent," recruiting top personnel is a significant H.R. concern. To increase their selection appeal to a younger generation that is becoming more environmentally conscious. It is discernible that some employers, particularly in large multinational organizations, promote GHRMPs as "employer branding" (Ehnert, 2009). "Green recruitment" refers to a recruiting practice that uses little or no paper and does no environmental harm. The recruiting firms' environmental reputation and brand image have become more crucial in recruitment. Job seekers choose organizations that share their beliefs. (Renwick et al, 2013). Therefore, employers should use green employer branding to attract candidates who care about the environment (Shah, 2019). GRS identifies qualified employees who are motivated enough to make changes and support the management of the environment (Tang et al, 2018). Different methods are available to recruit and select the right person who is environmentally favourable, like through HRP, proper analysis of the job and observing their personality traits, etc. These are also supporting factors for recruiting the right person for the job. In order to draw in candidates who are concerned about the environment, organizations can add wording and requirements in their job postings that are

sustainability-focused. The business should emphasize its dedication to environmental responsibility to attract the best people.

Employers can promote their green and sustainable image through various channels, including websites, social media, and industry events. Social media platforms like Twitter, Facebook, and TikTok can be used to create interactive, Environmentally Sustainable Group (ESG)-focused pages that attract potential candidates. Collaborate with environmentally-focused organizations and associations to access candidates passionate about environmental causes. Staff recommends environmentally conscious candidates, aligning with company principles and culture, resulting in increased environmental awareness. Interviewers assess applicants' understanding of sustainability and environmental responsibility, evaluating their connection to organizational objectives.

3.2.2.2 Green Training and Development:

"Green training and development" is a process of offering employees working methods that ensure sufficient resource utilization, decrease waste, save energy, and minimize environmental degradation causes. When leaders and managers embrace environmental ideals, green training may help employees become more knowledgeable, aware of, and skilled in adopting green behaviours (McWilliams, Siegel, Wright, 2006). In addition, integrated training programs connected to evaluation and performance management are necessary to create a pro-environmental workplace (Shah, 2019). Training improves employee abilities and is crucial for inspiring and retaining workers. Therefore, businesses invest a lot of time and money into educating their staff about environmental challenges and giving them the tools they need to help (Jabbour & De Sousa Jabbour, 2016). As defined by Jabbour as an environmental policy that provides employees with the knowledge, skills, and attitudes required, Green training is a highly accepted method for raising environmental management cognition (Tang et al, 2018). Various methods are available to train environmentally friendly individuals, such as induction, orientation, motivational and counselling programs to boost employee commitment and increase sustainability behaviour. These methods can all serve as supporting factors for employee training. The study suggests that users use online courses, webinars, and video conferences as virtual training tools. As a result, participants do not need to travel, which lowers transportation-related carbon emissions (Periyasamy, Singh & Ravinder, 2022). Select energy-efficient training tools with ENERGY STAR certifications and features (Periyasamy et al., 2022). Utilise renewable energy sources like solar or wind for training facilities and collaborate with environmental organizations (Periyasamy et al., 2022). Along with all these uses of environmentally friendly equipment, encouraging virtual teamwork, and minimizing waste generation, are other methods for implementing green training in business.

3.2.2.3 Green Performance Management:

Performance and innovation management work together to advance the objectives (Athanasios Giannopoulos, 2015). A good strategy to lower carbon emissions and monitor progress towards sustainability targets is to update performance measurements and KPIs (Key Performance Indicators) to include metrics linked to sustainability. (Hristov & Chirico, 2019) Green performance management incorporates environmental concerns and business environmental regulations. It also emphasizes the utilization of environmental responsibilities. (Epstein & Roy, 1997). Using ISO 14000 to improve organizational learning and green management. Work quantity, quality, punctuality, attendance, and cooperative skills are just a few of the criteria which

may be used to assess performance (Sinaga & Nawangsari., 2019). Modify the evaluation criteria for performance to reflect how much each employee contributes to sustainability. Consider including sustainability-related skills like fostering eco-friendly behaviours, resource efficiency innovation, or environmental awareness. (Khattak, 2023), Create incentive programmes recognizing staff for exceeding sustainability goals or implementing extra environmentally friendly practices. Take into account incorporating sustainability into the company's incentive or recognition programmes that are based on performance. (Khattak, 2023), Employees should receive regular coaching and feedback on their performance in terms of sustainability. Offer advice on how people can improve their sustainability efforts, and acknowledge and reward those who excel in sustainability-related tasks (Martins et.al., 2021). By frequently assessing sustainability performance and finding areas for improvement, organizations can cultivate a culture of continuous learning and progress. Encourage staff members to share sustainable ideas and best practices, fostering Health and Safety innovation and knowledge exchange.

Organizations use incentive schemes to recognize their employees' efforts and motivate them to maintain high-performance standards or customer service. Rewards might be financial, non-financial, or psychological. Benefits and remuneration for becoming green can take many different forms. It can be monetary (such as cash, bonuses, premiums, and financial incentives for employees to buy green goods, hybrid cars, or bicycles), non-monetary (such as vacation time, sabbaticals, and gift certificates), recognition-based (such as excellence awards, annual awards, dinners, daily praise), or negative reinforcement (such as criticism, warnings, and demotion) (Govindarajulu & Daily, 2004; Renwick et al., 2013; Bangwal, Deepak, Tiwari & Prakash, 2015)

3.2.2.4 Green Involvement:

"Green Involvement" usually refers to the involvement or engagement of people, groups, or communities in projects or activities that support environmental sustainability and combat climate change (Fernández, Ventura, Andrade, Lumbreras & Cobo-Benita, 2017). It alludes to the proactive actions taken by different stakeholders to help create a greener and more sustainable future. Organizations can focus on reducing energy consumption by implementing energy-efficient technologies and practices. Energy efficiency can be improved by using energy-efficient lighting, optimizing heating, ventilation, and air conditioning (HVAC) systems, and promoting energy-saving behaviours among employees. Businesses can embrace sustainable procurement practices by considering the effects of their supply chain on the environment. Sustainable procurement can be achieved by buying supplies and goods from providers who practice environmental responsibility, encouraging fair trade and organic goods, and, whenever practical, sourcing locally to cut down on transportation emissions. By increasing awareness and offering training on environmental sustainability, organizations can encourage their staff to participate in green initiatives. Employee engagement can be increased by setting up seminars, webinars, or campaigns on environmentally friendly procedures, encouraging staff members to use public transit or carpool, and praising and rewarding environmentally good behaviour. Organizations can establish environmental reporting systems to track and measure their environmental impact. Environmental monitoring can be done by monitoring energy consumption, greenhouse gas emissions, water usage, and waste generation. By setting environmental goals and regularly reporting progress, organizations can hold themselves accountable and identify areas for improvement.

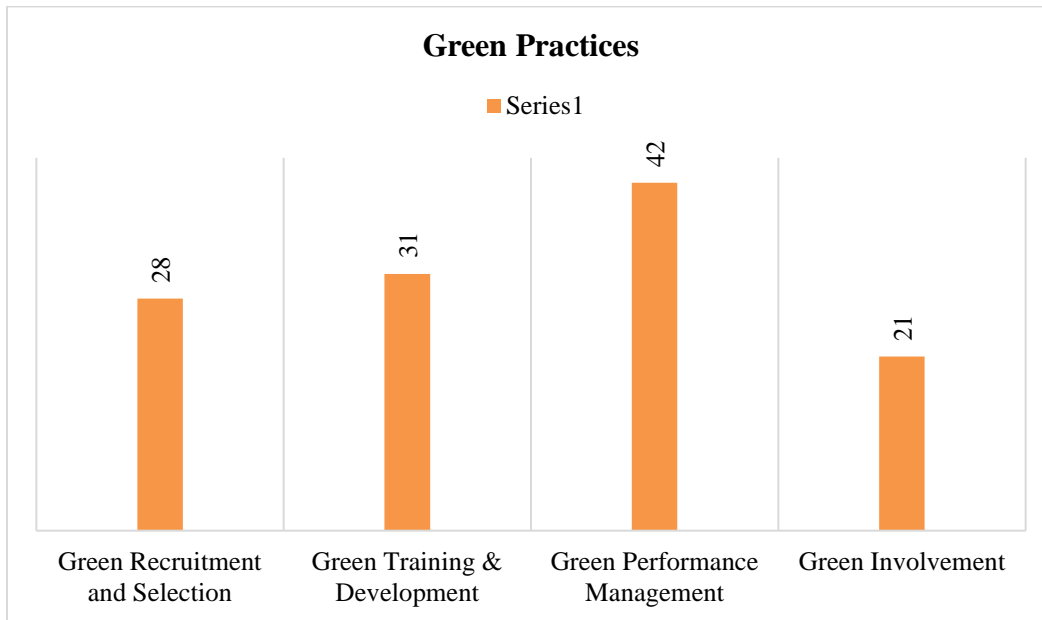


Figure 4: Bar Chart representation of Green HRM Practices.

"Figure 4 provides a visual overview of how GHRMPs have been conceptualized and operationalized in the research literature."

5. CONCLUSION

The present study sought to make the papers it cited publicly available to demonstrate the widespread research on GHRM. The study found that there is almost universal agreement on four GHRMPs, namely GRS, GTD, GPA, and G.I. These GHRMPs significantly contribute to the success of organizations through their employees' green orientation. Environmentally receptive, resource-organized, and socially responsible organizations must implement GHRMPs with awareness. GHRMPs positively and significantly impact employee environmental commitment, job satisfaction, and organizational commitment. Green training and development, green organizational culture, and adoption of green strategy are significant indicators, while green employee relations and union-management are highly dependent on the other indicators. Older workers need green hiring, while younger workers need green training. Green employee engagement, pay and rewards, and recruitment and selection benefit corporate sustainability, while green certification can increase company appeal to potential employees. GHRM practices are essential for achieving sustainability in H.R. departments. The reviewed papers found strong links between employee commitment, environmentally responsible behaviour, and environmental performance.

6. LIMITATIONS.

The current study has limitations, notwithstanding the contributions it has made. The major restriction is using just a few articles published in the designated Publications. Although these

companies are among the most reliable and effective scholarly Publishers, expanding the scope will allow for a more thorough and reliable examination.

7. FUTURE WORK.

The chosen search for scientific articles on GHRM in developing and developed countries and industries is limited to management, business, and organization scopes. There is a need to extend this work into other areas like academics and the healthcare sector. Further research should cover diverse cultures and industries to understand the heterogeneous data in GHRM research better.

REFERENCES

- Ahmed A. Zaid, Ayham A.M. Jaaron, Abdul Talib Bon (2018). The impact of green human resource management and green supply chain management practices on sustainable performance: An empirical study. *Journal of Cleaner Production*. Volume 204, Pages 965–979, ISSN 0959-6526, <https://doi.org/10.1016/j.jclepro.2018.09.062>.
- Ahmed, F., Mansoor, M. & Mumtaz, K. (2022). Impact of Green Human Resource Management Practices on Pro-Environmental Behavior, a Step towards Climate Action. *Journal of development and Social Science*, Vol 3(3), pp. 674-695, ISSN: 2709-6254, DOI: 10.47205/jdss.2022(3-III)65.
- Ali, M., Puah, C.-H., Ali, A., Raza, S.A. and Ayob, N., (2022). Green intellectual capital, green HRM and green social identity toward sustainable environment: a new integrated framework for Islamic banks. *International Journal of Manpower*, Vol. 43 No. 3, pp. 614–638, DOI: <https://doi.org/10.1108/IJM-04-2020-0185>.
- Ameer Farhane Bin Mohd Arzaman, Siti Sarah Binti Omar & Siti Badariah Binti Khalid. (2018). Green Human Resource Management Practices in Manufacturing Industry: Cases of Firms in the Southern Part of Malaysia. *The Journal of Social Sciences Research*. Academic Research Publishing Group, pages 347-356:2.
- Anton Arulrajah, Anthonypillai & Opatha, Henarath & Navaratne, Nimal. (2015). Green Human Resource Management Practices: A Review. *Sri Lankan Journal of Human Resource Management*, 5(1), 1–16, doi: 10.4038/sljhrm.v5i1.5624.
- Athanasios Giannopoulos, (2015). Performance Management as a Process of Promoting Innovation in Software Industry. *Procedia - Social and Behavioral Sciences*, Volume 175, pp 401–407, ISSN 1877-0428, doi: <https://doi.org/10.1016/j.sbspro.2015.01.1216>.
- Awwad Al-Shammari AS,(2022). Green Human Resource Management and Sustainable Performance With the Mediating Role of Green Innovation: A Perspective of New Technological Era. *Frontiers in Environmental Science*, 10:901235, pp 1-12, DOI: 10.3389/fenvs.2022.901235
- Bahuguna, P.C., Srivastava, R. and Tiwari, S. (2023). Two-decade journey of green human resource management research: a bibliometric analysis. *Benchmarking: An International Journal*, Vol. 30(2), pp. 585–602, doi: <https://doi.org/10.1108/BIJ-10-2021-0619>.
- Bangwal, Deepak, Tiwari, Prakash. (2015). Green HRM – A Way to Greening the Environment. *IOSR Journal of Business and Management (IOSR-JBM)*. Volume 17, Issue 12, 45-53, e-ISSN: 2278-487X, p-ISSN: 2319-7668, doi: 10.9790/487X-171214553

- Benevene, P.; Buonomo, I. (2020), Green Human Resource Management: An Evidence-Based Systematic Literature Review. *Sustainability*, 12, 5974, doi: <https://doi.org/10.3390/su12155974>
- Chaudhary, R. (2020). Green human resource management and employee behaviour: An empirical analysis. *Corporate Social Responsibility and Environmental Management*, 27, 630– 641, doi: <https://doi.org/10.1002/csr.1827>.
- Daily, B.F. and Huang, S. (2001). Achieving Sustainability through Attention to Human Resource Factors in Environmental Management. *International Journal of Operations & Production Management*, 21, 1539-1552, doi: <http://dx.doi.org/10.1108/01443570110410892>
- Ehnert, I. (2009). Introducing Sustainability into HRM. In: *Sustainable Human Resource Management. Contributions to Management Science*, 1-31, Physica-Verlag HD doi: https://doi.org/10.1007/978-3-7908-2188-8_1.
- Epstein, M.J. and Roy, M.-J. (1997), Using ISO 14000 for improved organizational learning and environmental management. *Environ. Qual. Manage.*, 7: 21-30. <https://doi.org/10.1002/tqem.3310070103>
- Ercantan, O., Eyupoglu, S. (2022), How Do Green Human Resource Management Practices Encourage Employees to Engage in Green Behavior? Perceptions of University Students as Prospective Employees. *Sustainability*, 14, 1718. DOI: <https://doi.org/10.3390/su14031718>
- Ercantan, Ozlem, and Serife Eyupoglu (2022). How Do Green Human Resource Management Practices Encourage Employees to Engage in Green Behavior? Perceptions of University Students as Prospective Employees. *Sustainability*. 14(3), 1718. <https://doi.org/10.3390/su14031718>
- Fatma S. Hafez, Bahaaeddin Sa'di, M. Safa-Gamal, Y.H. Taufiq-Yap, Moath Alrifay, Mehdi Seyedmahmoudian, Alex Stojcevski, Ben Horan, Saad Mekhilef. (2023). Energy Efficiency in Sustainable Buildings: A Systematic Review with Taxonomy, Challenges, Motivations, Methodological Aspects, Recommendations, and Pathways for Future Research, *Energy Strategy Reviews*, Volume 45, 101013, ISSN 2211-467X, doi: <https://doi.org/10.1016/j.esr.2022.101013>.
- Fernández, L., Ventura, A. C., Andrade, J. C., Lumbreras, J., & Cobo-Benita, J. R. (2017). The effect of clean development mechanism projects on human resource management practices in Brazil. *International Journal of Operations & Production Management*, 37(10), 1348–1365. doi:10.1108/ijopm-06-2015-0380.
- Geraint Harvey, Karen Williams & Jane Probert. (2013). Greening the airline pilot: HRM and the green performance of airlines in the U.K. *The International Journal of Human Resource Management*, 24:1, 152–166, DOI: 10.1080/09585192.2012.669783
- Govindarajulu, N. and Daily, BF. (2004). Motivating employees for environmental improvement. *Industrial Management & Data Systems*, 104(4), pp. 364-372. <https://doi.org/10.1108/02635570410530775>.
- Guillot-Soulez, C., Saint-Onge, S., & Soulez, S. (2021). Green certification and organizational attractiveness: The moderating role of firm ownership. *Corporate Social Responsibility and Environmental Management*, 29(1), 189-199, doi: 10.1002/csr.2194

- Hannah Snyder, (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339, ISSN 0148-2963, <https://doi.org/10.1016/j.jbusres.2019.07.039>.
- Helena Mateus Jerónimo, Paulo Lopes Henriques, Teresa Correia de Lacerda, Filipa Pires da Silva, Pedro Rino Vieira, (2020). Going green and sustainable: The influence of green H.R. practices on the organizational rationale for sustainability. *Journal of Business Research*, 112, pp 413-421, ISSN 0148-2963, doi: <https://doi.org/10.1016/j.jbusres.2019.11.036>.
- Hossari, Hosna & Elfahli, Kaoutar. (2022). Green Human Resource Management: An Exploratory Study from Moroccan ISO 14001 Certified Companies, *IntechOpen*, doi: 10.5772/intechopen.105565.
- Hristov, I.; Chirico, A. (2019), The Role of Sustainability Key Performance Indicators (KPIs) in Implementing Sustainable Strategies. *Sustainability*, 11, 5742, doi: <https://doi.org/10.3390/su11205742>
- Iftikhar Umer, Zaman Khansa, Rehmani Mahmood, Ghias Wajeeha, Islam Tahir , (2021). Impact of Green Human Resource Management on Service Recovery: Mediating Role of Environmental Commitment and Moderation of Transformational Leadership. *Frontiers in Psychology*, 12, 1-8, doi: 10.3389/fpsyg.2021.710050
- Jabbour, C.J.C.; De Sousa Jabbour, A.B.L. (2016). Green human resource and supply chain management: Linking two emerging agendas. *Journal of Cleaner Production* , 112, 1824–1833, doi: <https://doi.org/10.1016/j.jclepro.2015.01.052>.
- Jamal, Tauseef, Muhammad Zahid, José Moleiro Martins, Mário Nuno Mata, Haseeb Ur Rahman, and Pedro Neves Mata. (2021). Perceived Green Human Resource Management Practices and Corporate Sustainability: Multigroup Analysis and Major Industries Perspectives. *Sustainability*, 13, no. 6: 3045, doi: <https://doi.org/10.3390/su13063045>
- Jerónimo, H. M., Henriques, P. L., Lacerda, T. C. de, da Silva, F. P., & Vieira, P. R. (2019). Going green and sustainable: The influence of green H.R. practices on the organizational rationale for sustainability. *Journal of Business Research*, 112, 413-421, doi:10.1016/j.jbusres.2019.11.036.**
- Khan, M.H., Muktar, S.N.A (2020). Bibliometric analysis of green human resource management based on Scopus platform. *Cogent Business Management*, 7:1, 1831165, doi: <https://doi.org/10.1080-23311975.2020.1831165>
- Khattak, A. (2023). Are environmental sustainability thoughts a panacea for environmental performance? Social innovation and the moderating role of green innovation. *International Journal of Innovation Science*, Vol. ahead-of-print No. ahead-of-print, doi: <https://doi.org/10.1108/IJIS-10-2022-0190>
- Kuo, Yanku & Khan, Tariq & Islam, Shuja & Abdullah, Fakhrul & Pradana, Mahir & Kaewsaengon, Rudsada. (2022). Impact of Green HRM Practices on Environmental Performance: The Mediating Role of Green Innovation. *Frontiers in Psychology*. 13. 916723. 10.3389/fpsyg.2022.916723.
- Lashari IA, Li Q, Maitlo Q, Bughio FA, Jhatial AA and Rashidi Syed O (2022) Environmental sustainability through green HRM: Measuring the perception of university managers. *Front. Psychol.* 13:1007710. doi: 10.3389/fpsyg.2022.1007710

- Leidner, S., Baden, D., & Ashleigh, M. J. (2019). Green (environmental) HRM: aligning ideals with appropriate practices. *Personnel Review*, 48(5), 1169-1185, doi:10.1108/pr-12-2017-0382
- Madsen, H. and Uhløi, J.P. (2001). They are integrating environmental and stakeholder management. *Business Strategy and Environment*, 10, 77–88, doi: <https://doi.org/10.1002/bse.279>
- Mahdy, F., Alqahtani, M., Binzafrah, F. (2023), Imperatives, Benefits, and Initiatives of Green Human Resource Management (GHRM): A Systematic Literature Review. *Sustainability*, 15, 4866, doi: <https://doi.org/10.3390/su15064866>
- Marta Pinzone, Marco Guerri, Emanuele Lettieri, Tom Redman, (2016). Progressing in the change journey towards sustainability in healthcare: the role of 'Green' HRM. *Journal of Cleaner Production*, 122, 201-211, ISSN 0959-6526, doi: <https://doi.org/10.1016/j.jclepro.2016.02.031>.
- Martins JM, Aftab H, Mata MN, Majeed MU, Aslam S, Correia AB, Mata PN. (2021). Assessing the Impact of Green Hiring on Sustainable Performance: Mediating Role of Green Performance Management and Compensation. *International Journal of Environment Research and Public Health*, 18(11), 5654, doi: <https://doi.org/10.3390/ijerph18115654>.
- McWilliams, A., Siegel, D.S. & Wright, P.M. (2006). Corporate Social Responsibility: Strategic Implications. *Journal of Management Studies*, 43,1–18. doi: <https://doi.org/10.1111/j.1467-6486.2006.00580.x>
- Mirčetić V, Ivanović T, Knežević S, Arsić VB, Obradović T, Karabašević D, Vukotić S, Brzaković T, Adamović M, Milojević S, Milašinović M, Mitrović A, Špiler M. (2022). The Innovative Human Resource Management Framework: Impact of Green Competencies on Organisational Performance. *Sustainability*, 14(5), 2713, doi: <https://doi.org/10.3390/su14052713>.
- Mukherji, A.; Bhatnagar, J. (2022). Conceptualizing and theorizing green human resource management: A narrative review. *International Journal of Manpower*, 43, 862–888, doi: <https://doi.org/10.1108/IJM-06-2021-0376>
- Nachiappan Subramanian, Muhammad D. Abdulrahman, Lin Wu & Prithwiraj Nath. (2016). Green competence framework: Evidence from China. *The International Journal of Human Resource Management*, 27(2), 151–172, DOI: 10.1080/09585192.2015.1047394
- Peerzadah, S.A, Mufti, S., Nazir, N.A. (2018). Green Human Resource Management: A Review. *International Journal of Enhanced Research in Management & Computer Applications*, 7(3): 790–795.
- Periyasamy AG, Singh A, Ravindra K. (2022). Carbon Emissions from Virtual and Physical Modes of Conference and Prospects for Carbon Neutrality: An Analysis From India. *Air, Soil and Water Research*, 15, 1-10, doi:10.1177/11786221221093298.
- Pham, N.T., Hoang, H.T. and Phan, Q.P.T. (2020). Green human resource management: a comprehensive review and future research agenda. *International Journal of Manpower*, 41(7), 845-878, doi: <https://doi.org/10.1108/IJM-07-2019-0350>.
- Pimonratanakan, Sudarat, Intawee, Tanapat, Krajangsaeng, Kanokporn and Pooripakdee, Santidhorn, (2017). Transformational leadership climate through learning organization toward the organizational development. *Journal of Administrative and Business Studies*, 3(6), 284–291, doi: <https://EconPapers.repec.org/RePEc:apb:jabsss:2017:p:284-291>.

- Pothuraju Vijaya Lakshmi, Nagaraju Battu (2018). A Study On Green Hrm - An Emerging Trend In Hr Practices, *International Journal of Management (IJM)*, 9(3), 74–82, Retrieved from https://iaeme.com/MasterAdmin/Journal_uploads/IJM/VOLUME_9_ISSUE_3/IJM_09_03_008.pdf
- Ramus, C. A. (2001). Organizational Support for Employees: Encouraging Creative Ideas for Environmental Sustainability. *California Management Review*, 43(3), 85–105. doi: <https://doi.org/10.2307/41166090>
- Ramus, C. A., (2002). Encouraging innovative environmental actions: what companies and managers must do, *Journal of World Business*, 37(2), 151–164, doi: [https://doi.org/10.1016/S1090-9516\(02\)00074-3](https://doi.org/10.1016/S1090-9516(02)00074-3)
- Rao, M. S., (2022). A Study On The Impact Of Green Environmental And Hrm Practices On The Organizational Performance In Select Organizations, Ap, India. *Environmental Smoke*, 5(1), 1–9. doi: <https://doi.org/10.32435/envsmoke.2022511-9>
- Raut, R.D., Gardas, B., Luthra, S., Narkhede, B. & Kumar Mangla, S. (2020). Analyzing green human resource management indicators of the automotive service sector. *International Journal of Manpower*, 41(7), 925–944, doi: <https://doi.org/10.1108/IJM-09-2019-0435>
- Ren, S., Tang, G. & E. Jackson, S., (2018). Green human resource management research in emergence: A review and future directions. *Asia Pacific Journal of Management*, 35, 769–803. doi: <https://doi.org/10.1007/s10490-017-9532-1>
- Renwick, D.W.S., Redman, T. and Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *International Journal of Management Reviews*, 15, 1–14. doi: <https://doi.org/10.1111/j.1468-2370.2011.00328.x>
- Ribeiro N, Gomes DR, Ortega E, Gomes GP, Semedo AS, (2022). The Impact of Green HRM on Employees' Eco-Friendly Behavior: The Mediator Role of Organizational Identification. *Sustainability.*, 14(5):2897, doi: <https://doi.org/10.3390/su14052897>
- Ridhi Sarma & Neha Gupta (2020). Green HRM: An Innovative Approach to Environmental Sustainability. *Twelfth AIMS International Conference on Management*, 825–830, Retrieved from <http://www.aims-international.org/aims12/12A-CD/PDF/K723-final.pdf>
- Rizwan Raheem Ahmed, Waqar Akbar, Maria Aijaz, Zahid Ali Channar, Faiz Ahmed, Vishnu Parmar. (2023). The role of green innovation on environmental and organizational performance: Moderation of human resource practices and management commitment, *Heliyon*, 9(1), e12679, ISSN 2405-8440, doi: <https://doi.org/10.1016/j.heliyon.2022.e12679>.
- Sabzar Ahmad Peerzadah, Dr. Sabiya Mufti, Dr. Nazir Ah. Nazir. (2018). *International Journal of Enhanced Research in Management & Computer Applications* ISSN: 2319–7471, Volume 7 Issue 3.**
- Savchenko, Lidiia & Олександрович, Бугайко & Svitlana, Smerichevska. (2021). Environmental and social responsibility in supply chains In economics, management and administration in the coordinates of sustainable development, Baltija Publishing, 596-615, doi: 10.30525/978-9934-26-157-2-32.
- Shafaei, A. and Nejati, M. (2023). Green human resource management and innovative employee behaviour: Does inclusive leadership play a role?. *Personnel Review*, Vol. ahead-of-print No. ahead-of-print, doi: <https://doi.org/10.1108/PR-04-2021-0239>

- Shafaei, A., Nejati, M. and Mohd Yusoff, Y. (2020). Green human resource management: A two-study investigation of antecedents and outcomes. *International Journal of Manpower*, 41(7), 1041–1060, doi: <https://doi.org/10.1108/IJM-08-2019-0406>
- Shah, M. (2019). Green human resource management: Development of a valid measurement scale. *Business Strategy and the Environment*, 28, 771–785, doi: <https://doi.org/10.1002/bse.2279>
- Shah, N. and Soomro, B.A. (2023). Effects of green human resource management practices on green innovation and behaviour, *Management Decision*, 61(1), 290–312. doi: <https://doi.org/10.1108/MD-07-2021-0869>
- Sinaga, S. A., & Nawangsari, L. C. (2019). The Effect Of Green Recruitment, Green Training On Employee Performance In Pt Tru Using Organization Citizenship For Environment As Mediation Variable. *Dinasti International Journal of Management Science*, 1(2), 204–216, doi: <https://doi.org/10.31933/dijms.v1i2.57>.
- Sonal Singh Rathi, Dr Vikas Nath, (2018). The Concept Of Green HRM-A Review Of Literature. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 5(9), 316–332, Retrieved from <https://www.jetir.org/papers/JETIRA006375.pdf>
- Sudin Suhaimi, (2011). Strategic Green HRM: A proposed model that supports Corporate Environmental Citizenship. *International Conference on Sociality and Economics Development IPEDR*, IACSIT Press, Singapore, 10, 79-83.
- Sushma. Rani. Dr K. Mishra. (2014), Green HRM: Practices and Strategic Implementation in the Organizations. *International Journal on Recent and Innovation Trends in Computing and Communication*, 2(11), 3633–3639, doi: <https://doi.org/10.17762/ijritcc.v2i11.3525>
- Tang G., Chen Y., Jiang Y., Paillé P., Jia J. (2018). Green human resource management practices: Scale development and validity. *Asia Pacific Journal of Human Resources*, 56, 31–55, doi:<https://doi.org/10.1111/1744-7941.12147>
- Yasmeen Shamsi Rizvi; Raksha Garg, (2021). The study of green human resource management practices in Indian organizations and its relationship with green culture and environmental performance. *International Journal of Environment, Workplace and Employment*, 6(3), 234–258, doi: 10.1504/IJEWE.2021.10043364
- Zhao, L., Lee, S.H., Li, M., Sun, P. (2022). The Use of Social Media to Promote Sustainable Fashion and Benefits Communications: A Data-Mining Approach. *Sustainability*, 14, 1178, doi: <https://doi.org/10.3390/su14031178>