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# A Bibliometric Exploration of Green HRM: Trends, Impacts, and Future Directions

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**ABSTRACT**

Green Human Resource Management (GHRM) integrates environmental sustainability into HR practices, gaining traction in recent years. In this study, the impact of GHRM on several facets of organizational performance is examined bibliometrically. This bibliometric study analyses 262 GHRM papers published from 2014 to 2023, utilizing the Scopus database and VOSviewer software to map research trends and impacts. The research design involved a comprehensive literature review, focusing on co-authorship, keyword co-occurrence, and citation analysis. GHRM significantly influences environmental performance, and the top five nations that contribute to this field of study are China, Malaysia, Pakistan, India, and the UK. According to the findings, GHRM practices such as green performance appraisal, green remuneration and rewards, and green training and development are essential for attaining long-term organizational success. The study thoroughly summarizes Green Human Resource Management (GHRM) research today. It emphasizes the need for more research on the outside variables that affect GHRM. The results are relevant to companies looking to match their HR procedures with environmental goals and help create a sustainable organizational climate.

**Keywords:** Bibliometric, Environmental Performance, Green Human Resource Management, GHRM, Sustainable organization.

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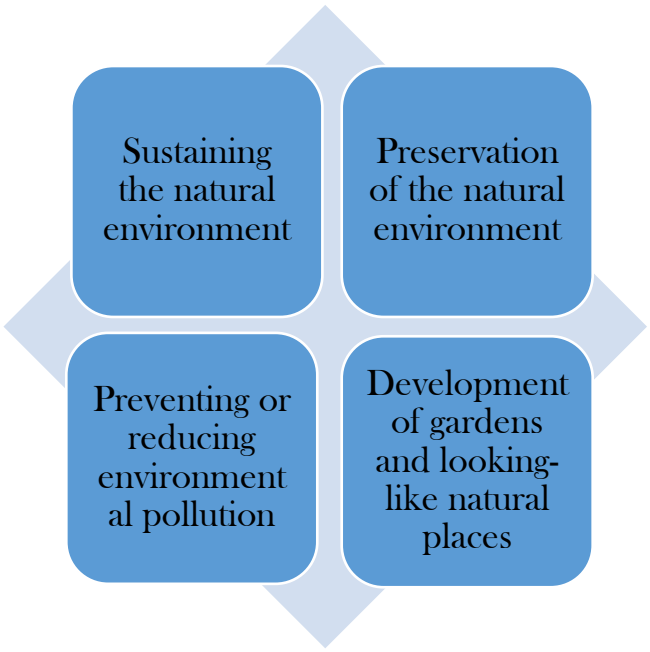
## 1.1 **INTRODUCTION**

“The term “Green Human Resource Management” perhaps originated in 1996 from the contribution by Wehrmeyer (1996), who edited a book titled “Greening People: Human Resources and Environmental Management” (as in Jackson, Renwick, Jabbour, and Muller-Camen, 2011). According to Jabbour et al. (2010), Green HRM is the "greening" of functional aspects of HRM such as job analysis and description, recruiting, selection, training, performance review, and rewards. Green HRM was once again described by Jabbour (2011) as "the level of greening of human resource management practices" concerning the competitive and functional aspects of HRM. The human resource policies, procedures, and methods implemented in the organization or department are HRM practices (Gerhart et al., 2000; Huselid and Becker, 2000).

Green is an environmental term. There are four different associations related to the term "green" or "greening" in the context of managing people at work/ human resource management (HRM). (Opatha, 2013).




Source: Author’s framework

Renwick et al (2008) define Green HRM as the term used to describe integrating corporate environmental management with human resource management. They added that green HRM relates to the human resources aspects of ecological management. Similarly, green HRM practices refer to the real green HRM policies, procedures, and methods applied in organizations to decrease their adverse environmental effects or increase their beneficial environmental impact. Developing the organization's sustainable environmental performance is the ultimate objective of green HRM practices. (Arulrajah et al, 2015).

Green Human Resource Management (GHRM) has gained significant attention recently as organizations strive to integrate environmental sustainability into their human resource management practices. This study conducts a bibliometric analysis of GHRM and its impact on organizational performance. Several Bibliometric studies have examined Green HRM over the past decade. Fachada (2022) A study analysed GHRM literature from 2010 to 2020 using the Web of Science database and VOSviewer software to examine the exponential growth of the topic and the

need for conceptual clarity. In another investigation, Bahuguna (2023) covered nearly two decades (2005 to June 2021), analysing 247 articles from the Web of Science database to understand GHRM scholarship using bibliometric methods. A more recent study by Wijaya (2024) examined 587 articles from the Scopus database between 2013 and 2023, utilizing VOSviewer and Biblioshiny app for bibliometric network visualization, aiming to provide a comprehensive understanding of GHRM developments.

The Scopus database contained 262 papers published between 2014 and 2023. The analysis was conducted using VOSviewer software to create bibliometric maps and networks.

### *1.1.2* **Table1.** ***Definitions of Green Human Resource Management (GHRM) identified in the literature review***

| Author, Year | Definitions |
|---|---|
| Alketbi et al, 2024 | "G-HRM practices positively predict employee green attitudes, employee green satisfaction, client green satisfaction, employee green behaviour, and organizational green performance. Understanding these predictive relationships is crucial for organizations aligning their human resource practices with environmental sustainability goals." |
| Alaghbari, 2023 | "Green Human Resource Management employs resources of humans in the process of applying innovation to attain the performance of the environment, reduction of waste, social responsibility, and modest benefit through continuous learning, development, and by implementing the goal of the environment and strategies that are linked with the policies and goals of the organization." |
| Matumona Lubabu Merlin et al,2022 | "GHRM incorporates many traditional practices (i.e., employee engagement, recruitment, rewards, and training) to improve an organization's environmental performance." |
| Yen-Ku Kuo et al, 2022 | "Green HRM takes an environmental approach and aims to create a green work environment that encourages workers to perform their jobs in the most environmentally responsible manner." |
| Ren and Hussain, 2022 | "G-HRM, as a general term, refers to integrating environmentally friendly practices into HRM strategies and policies." |
| Farrukh et al, 2022 | "The adoption of G-HRM policies represents a proactive approach by agencies to enhance their environmental and overall performance. By integrating G-HRM practices into HRM strategies, organizations aim to foster positive attitudes, behaviours, and overall performance." |
| Benevene and Buonomo 2020 | "G-HRM acts as a potential catalyst for fostering organizational cultures that are socially responsible and environmentally positive." |
| Maderazo, 2016; Mandago, 2018 | "Among green HRM practices, green compensation and rewards are important practices in which any organization rewards and compensates its employees." |
| Haldorai et al, 2022 | "GHRM refers to an understanding of the associations between the activities of a firm that influence the natural environment and the formulation, evaluation, execution, and effect of human resource management." |
| Ren et al, 2018 | "G-HRM practices significantly influence employee attitudes and behaviours toward environmental sustainability, fostering a sense of ecological responsibility among employees." |

| | |
|---|---|
| Albloush et al, 2022 | "A significant relationship exists between G-HRM and organizational performance, as well as between G-HRM and human capital development, demonstrating that integrating sustainability into human resource strategies can enhance an organization's environmental standing." |
| Pimonratanakan and Pooripakdee, 2017; Pham et al, 2019 | "According to current green HRM guidelines and procedures, top management involves inspiring employee responsibility toward the environment and team spirit in this region, hiring, satisfying, inspiring self-improvement, and mentoring individuals by the institution's aims." |

Source: Author's own

**1.1.3 Objectives**

i. To project the productivity and impact of GHRM research through bibliometric indicators: publication count, citation frequency, and productivity at the author level.
ii. Identification of the most influential authors, institutions, and countries researching GHRM.
iii. An emerging part of this will be identifying major themes and trends of GHRM research, including the role of GHRM in driving environmental sustainability, employee attitudes and behaviour, and organizational performance.
iv. The kind of relationship that may exist between GHRM and related fields such as Corporate Social Responsibility, Sustainable Development, and Innovation.
v. Identify gaps and opportunities in the status of GHRM research, with suggestions for further research directions.

## 2.1 MATERIAL AND METHODS

### 2.1.1 *Data Collection*

This study collected data for the bibliometric analysis of GHRM in the Scopus database; it retrieved 262 papers published from 2014 to 2023.

### 2.1.2 *Data Analysis*

VOSviewer software was applied to the data analysis, generating bibliometric maps and networks. In the present research, this analysis was conducted from five aspects: co-authorship, co-occurrence of keywords, co-citation of authors, citation of documents, authors, and countries, and bibliographic coupling with sources.

#### 2.1.2.1 *Co-Authorship Analysis*

This section is carried out to perform the co-authorship analysis, which indicates the relationship of authors. I used 25 as the minimum number of authors per document and three as the minimum number of records per author, and 57 authors met the threshold.

#### 2.1.2.2 *Co-Occurrence of Keywords*

A co-occurrence analysis of keywords was conducted to determine their relationship. The minimum number of keywords encountered was chosen to be 5, and 60 keywords met the threshold. The analysis identified the most frequently occurring keywords related to GHRM.

#### 2.1.2.3 *Co-Citation of Authors*

Co-citation analysis was conducted so that the authors could discover the relationships between them. In this case, the minimum citation count for an author was set at 100. For this count, 30 authors passed the threshold.

#### 2.1.2.4 *Citation to Documents, Authors, and Countries*

The citation analysis of the documents, authors, and countries was carried out to determine the most cited documents, authors, and countries. Thirty-six documents passed the threshold by limiting the minimum number of citations of a document to 100. By setting a minimum number of citations by an author at 100, 15 authors passed the threshold. By setting a minimum number of citations by country at 100, 13 countries passed the threshold.

#### 2.1.2.5 *Bibliographic Coupling with Sources*

Bibliographic coupling with sources was calculated to define the relations between sources. The minimum number of source documents was 5, and 10 sources met the threshold.

## 3.1 DATA ANALYSIS AND RESULTS

According to the information, here are some of the strengths, weaknesses, and areas of improvement that could be in the data analysis in the research paper:

The paper presents a comprehensive bibliometric analysis of 262 papers on Green Human Resource Management (GHRM) published from 2014 to 2023. This provides an overall view of the present research in this area. An analysis is done on five aspects: co-authorship, keyword co-occurrence, author co-citation, document, author and country citation, and source bibliographic coupling, giving a rich understanding of the research landscape. The paper has also used visualization tools like VOSviewer to plot bibliometric maps and networks, making the emergence of patterns and relations within the data easier. However, some limitations or suggestions for improvements do exist. The analysis was constrained to papers published between 2014 and 2023, which might not represent a global view of the evolution of GHRM research. The paper filters out less influential authors and papers with threshold values like the minimum number of authors per document and the minimum number of citations of an author, which might miss key contributions. On the other hand, there is little context about the papers, such as methodology, sample size, or research design, provided along with the analysis, which limits the interpretation of these results. Such weaknesses could be overcome by expanding the scope of analysis to papers published before 2014 and using more nuanced threshold values, like weighted citation counts or citation impact scores, in identifying influential authors and papers. Again, these papers' context, methodology, sample size, and research design would only flesh out further an understanding of this research landscape.

Regarding data analysis and the results, the bibliometric analysis presents an excellent overview of the current state of research in GHRM, including middle themes and tendencies in the literature. This analysis of environmental performance thus reveals that GHRM significantly influences ecological performance, and the top five countries contributing to research in this field include China, Malaysia, Pakistan, India, and the UK. The findings reveal that GHRM significantly influences environmental performance, with China, Malaysia, Pakistan, India, and the UK being the top five countries contributing to the research in this field. The findings suggest that GHRM practices, such as green training and development, green compensation and rewards, and green performance appraisal, are crucial for achieving sustainable organizational performance. The study provides a comprehensive overview of the current state of research in GHRM and highlights the need for further investigation into the external factors that relate to GHRM. The findings have implications for organizations seeking to align their human resource practices with environmental objectives and contribute to developing a more environmentally responsible business landscape.

### 3.1.1 *Trends of Publication of document year from 2014 to 2023*

Figure 1 represents the publication trend for the Scopus database's "Green HRM" research from 2014 to 2023. It included 262 publications overall. Between 2014 and 2023, the average number of publications increased annually; still, there were no publications in 2014 and a decline in publications in 2017, after consistent publication growth. In 2023, 86 publications were the most that could be published. This indicates the notable increase in publications in the publishing sector, which can be attributed to global developments in this field and the acceptance of sustained growth for organizations globally.


**Figure 1. Distribution of studies by trend on publication year.**

### 3.1.2 *Study distribution according to geography*

The geographical distribution of the studies was broad, with contributions from China, Malaysia, Pakistan, India, and the UK, providing a global perspective on the subject matter **(in Figure 2)**. There is the highest research paper publication in China (i.e., 92) and the lowest publication in the UK (i.e., 41), as shown in Figure 2.

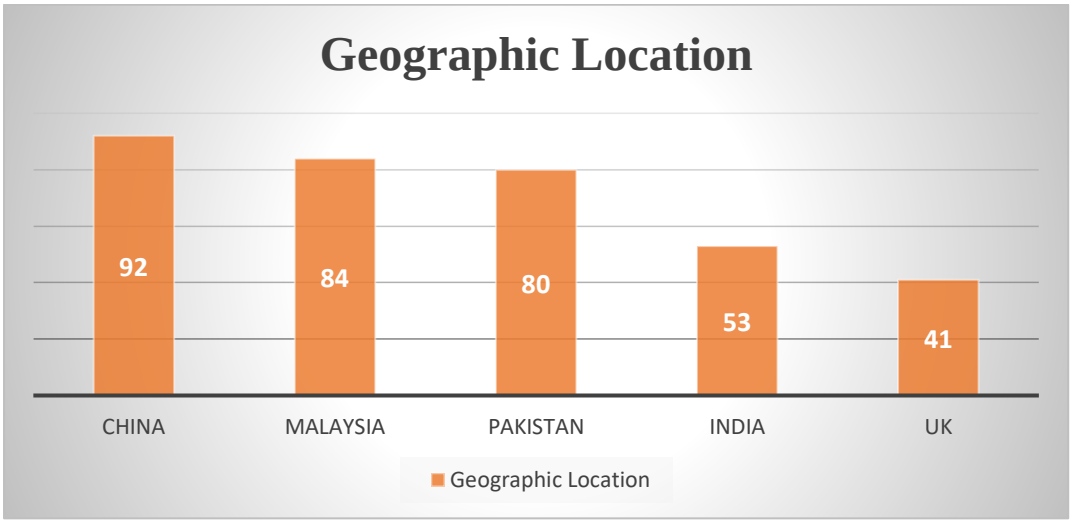



**Figure 2: Distribution of studies by geographic location.**

**Table 1: Description of the previous research work related to GHRM.**

| Authors (Year) | Country | Aim of Study | Data Collection Method | Findings | Number of Citations |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Ansari N.Y.et al. (2021) | | to investigate how HRM can significantly contribute to achieving sustainable environmental goals | theoretical framework | Findings reveal that GHRM practices influence employees' green commitment and PEBs | 169 |
| Nisar Q.A et al. (2021) | Malaysia | This study examines the role of green human resource management practices towards the environmental performance of green hotels in Malaysia | survey questionnaire | The study findings postulated green training and development as a key practice in building intellectual capital and fostering pro-environmental behaviors. | 172 |
| Hameed Z et al. (2020) | Pakistan | This study tests an integrative model incorporating the indirect effects of GHRM practices on employee organizational citizenship behavior toward the environment (OCBE), through green employee empowerment. | Paper-based questionnaire | The results of structural regression revealed that GHRM has a significant indirect effect on OCBE through green employee empowerment. | 224 |
| Tang G. et al. (2018) | China | This study aimed to propose and validate an instrument to measure GHRM. | exploratory analysis | The results indicated that the proposed measurement is valid. | 440 |
| Amrutha V.N. et al. (2020) | India | investigates the future of green practices in meeting the social sustainability | systematic review | Social sustainability is the least explored area of the economic and environmental | 264 |

| | | | | | |
|---|---|---|---|---|---|
| | | requirements of an organization | | pillars of sustainability | |
| Renwick D.W.S. et al. (2016) | UK | This article reviews the Contemporary developments in Green (environmental) HRM scholarship. | Review paper | Findings reveal the embedded nature of GHRM workplace-level practices, and additional research needs to focus on HR systems, individual behaviors, and emerging theoretical lenses. | 252 |
| Pinzone M. et al. (2016) | | This study helps in progressing in the change journey towards sustainability in healthcare | empirically tests | An understanding of how organizations can progress in their sustainability journey through the enhancement of employees | 247 |
| Mishra P. (2017) | India | to explore the status and challenges of green human resource management practices in India | literature review | to utilize the full potential of GHRM practices for encouraging pro-environmental behavior in the organizations | 173 |
| Saeed B.B. et al. (2019) | Pakistan | to examine the effects of green HRM practices on employees' pro-environmental behavior | self-report method | Green HRM practices positively affected employees' pro-environmental behavior, and pro-environmental psychological capital mediated | 453 |
| Dumont J. et al. (2017) | China | effects of Green HRM practices on employee workplace green Behavior: the role of psychological green climate and | empirically tested | Green HRM affects both employee in-role and extra-role workplace green behavior | 681 |

| | | | | | |
|---|---|---|---|---|---|
| | | employee green values | | | |
| Chaudhary R. (2020) | India | This study was conducted to understand the role of green human resource management (GHRM) in fostering employee environmental performance. | Cross-sectional research design | The study signifies the role of HRM in achieving environmental sustainability and emphasizes the urgent need to embed the sustainability dimension into HR systems to achieve sustainable development goals. | 272 |
| Gilal F.G. et al. (2019) | Pakistan | The study examines the influence of green human resource management (HRM) practices on environmental performance using data from higher education institutions | survey data | Findings guide managers on how and when green HRM practices are more likely to lead to enhanced environmental performance. | 192 |
| Ren S. et al. (2018) | | The growing awareness of and regulations related to environmental sustainability have invoked the concept of green human resource management (GHRM) in the search for effective environmental management (EM) within organizations. | focused review<br>A narrative review. | The aim is to advance the field of GHRM and provide a comprehensive framework for future research and practice. | 372 |
| Yu W. et al. (2020) | China | This study examines the value of green human resource | survey data | Results reveal that GHRM is significantly and positively | 176 |

| | | | | | |
|---|---|---|---|---|---|
| | | management (GHRM) in supporting environmental cooperation with customers and suppliers, and the moderating roles of internal green supply chain management (GSCM) | | related to environmental cooperation with customers and suppliers, and that the relationships are moderated considerably by internal GSCM | |
| Yong J.Y. et al. (2020) | Malaysia | This study examines the influence of green HRM practices on sustainability using cross-sectional data obtained from 112 large manufacturing firms in Malaysia | resource-based view | The findings reveal that only green recruitment and green training will lead to sustainability in the Malaysian manufacturing industry | 315 |
| Yusoff Y.M. et al. (2020) | Malaysia | need to examine how green HRM practices will enhance the environmental performance in the hotel industry | resource-based view | The result shows that green performance appraisal did not have a significant relationship with ecological performance | 191 |
| Roscoe S. et al. (2019) | China | This paper examines the relationship between GHRM practices, the enablers of green organizational culture, and a firm's environmental performance | survey | Findings suggest that pro-environmental HRM practices, including hiring, training, appraisal, and incentivization, support the development of the enablers of green organizational culture | 442 |

| | | | | | |
|---|---|---|---|---|---|
| Yusliza M.-Y. et al. (2019) | Malaysia | This paper aims to analyze the relationship between top management commitment, corporate social responsibility (CSR), and green human resource management (GHRM). | self-administered questionnaire | Findings indicate a significant positive relationship between top management commitment and CSR and all dimensions of GHRM. | 161 |
| Anwar N. et al. (2020) | Malaysia | to examine the influence of Green Human Resource Management on organisational citizenship behavior towards the environment and environmental performance on a university campus | structured questionnaire | The results showed that OCBE exhibited by academic staff acted as a means through which the Green HRM practices of a university can positively influence the environmental performance of a university campus | 264 |
| Haddock-Millar J. et al. (2016) | US | Explores how a multinational company approaches green human resource management (HRM) in its British, German, and Swedish subsidiaries. | Semi-structured interviews and focus groups | Identified several factors that explain the differences in approaches, including, amongst others, strategic and performance drivers and cultural dimensions, such as relationships with key stakeholders. | 191 |

Source: Author's own

**4.1 BIBLIOMETRIC AND NETWORK ANALYSIS**

In this section, we make a mapping analysis of publication in Green Human Resource Management by VOS viewer from five aspects: analyse data between co-authors and authors, Co-occurrences with all keywords (Author keywords + Index keywords), analyse documents, countries, and authors with citation, bibliography coupling with sources, and Co-citation with cited authors.

**4.1.1** The VOSviewer analysis of GHRM from the Scopus database for 2014–2023 is shown in **Figure 2.** Three color clusters (orange, blue, and green) represent the relationships between the topics in the VOSviewer research findings. Network visualization, overlay visualization, and density visualization are the three methods by which the VOS viewer shows bibliometric mapping. There are many ways to analyze data between co-authors and authors: a maximum of 25 authors per document, a maximum of 2 authors per document, and a minimum of 40 authors' citations. Of the 662 authors' total data, 57 fulfill the threshold, meaning that 57 of the network's objects are unconnected. The most extensive collection of connected items comprises just 14 items.

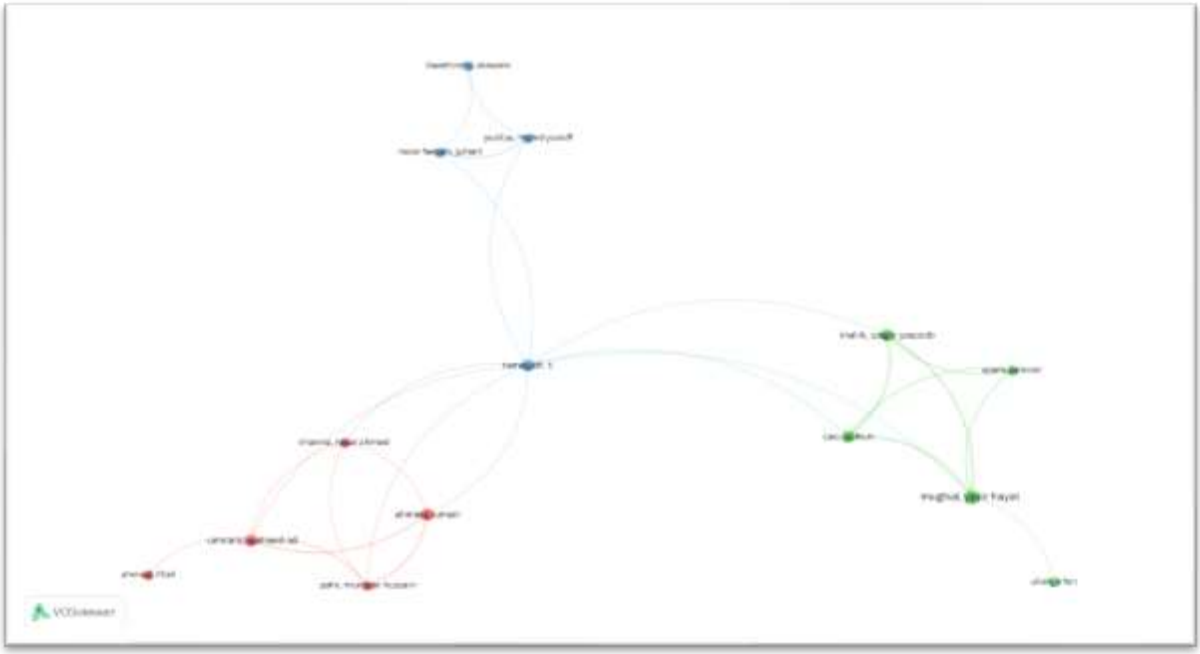


**Figure 3: Mapping Analysis Processed by Authors using VOSviewer**

**4.1.2 Co-Occurrence with All Keywords**

Co-occurrence analysis of keywords is an essential and helpful instrument to support knowledge mining and provide a view of the knowledge structure and research to understand better the research topics of publications in exploring the impact of Green HRM on sustainable organizational performance. Minimum number of occurrences of keywords: 5 of the 836, 60 meet the thresholds. For each of the 60 keywords, the total strength of the co-occurrence links with other keywords will be calculated. The keywords with the greatest total link strength will be selected—the number of keywords to be chosen: 25.

Shown in **Table 2**. And the map analysis shown in **Figure 4,** the number of keywords to be selected is 25, cluster 3 links 264, and their total link strength is 1310. The highest co-occurrence of keywords, Green Human Resource Management, is 87 in this table, and the lowest network of publication keyword co-occurrence, environmental protection, is 7.

**Table 2: The keyword co-occurrence network of Publications**.

| S.NO. | KEYWORDS | OCCURRENCES | TOTAL LINK STRENGTH |
|---|---|---|---|
| **1** | Green Human Resource Management | 87 | 245 |
| **2** | Human Resource | 49 | 215 |
| **3** | Environmental Performance | 39 | 132 |
| **4** | Human Resource Management | 36 | 164 |

| | | | |
|---|---|---|---|
| **5** | Environmental Management | 34 | 151 |
| **6** | Resource Management | 33 | 162 |
| **7** | Sustainability | 33 | 118 |
| **8** | Sustainable Development | 27 | 137 |
| **9** | Resource Allocation | 26 | 132 |
| **10** | Ghrm | 22 | 57 |
| **11** | Pakistan | 18 | 83 |
| **12** | Human | 16 | 111 |
| **13** | Human Resources Management | 16 | 89 |
| **14** | Green Economy | 15 | 83 |
| **15** | Humans | 15 | 110 |
| **16** | Management Practice | 14 | 79 |
| **17** | Natural Resources Management | 14 | 70 |
| **18** | Corporate Social Responsibility | 13 | 59 |
| **19** | Green Innovation | 13 | 59 |
| **20** | Human Resource Management Practices | 13 | 71 |
| **21** | Sustainable Performance | 13 | 63 |
| **22** | Manufacturing | 12 | 65 |
| **23** | Innovation | 9 | 46 |
| **24** | Workforce | 9 | 67 |
| **25** | Environmental Protection | 7 | 52 |

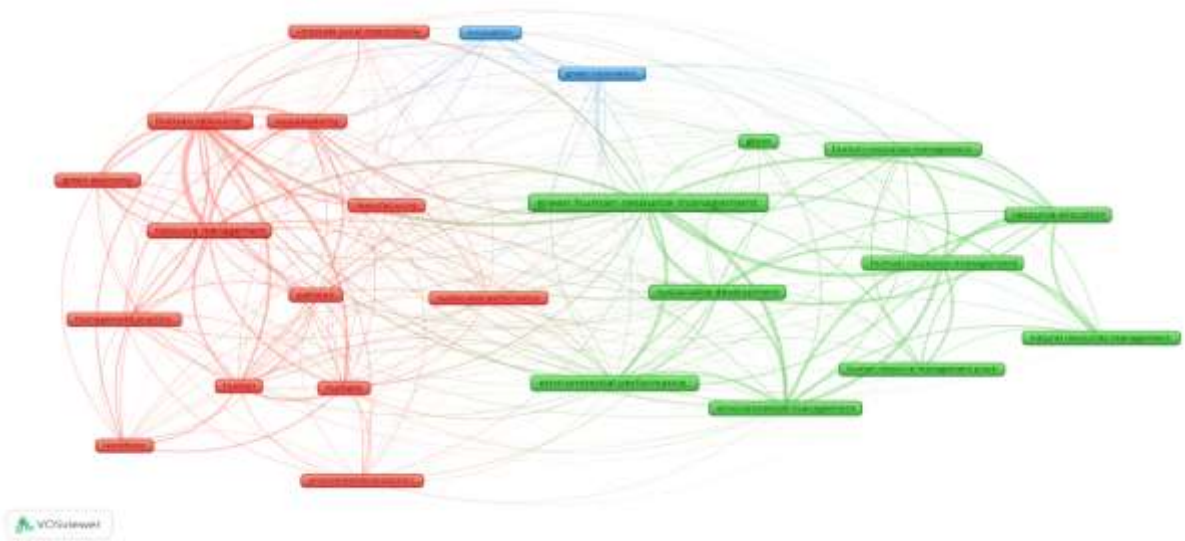


**Figure 4: The keyword co-occurrence network of publications**.

### 4.1.3 Co-Citation with Cited Authors

According to the visualization tool VOS viewer, the reference co-citation network by publications is shown in **Figure 5**. We set the minimum number of citations for an author as 100. Of the 14810 authors, 30 meet the threshold. For each of the 30 authors, the total strength of the Co-citation links with other authors will be calculated. The authors with the greatest total link strength will be selected.

A node in Figure 5 represents a reference, and the node size indicates the total number of citations we use to cite the reference. A link between two nodes represents a co-citation relationship; the thicker the link, the more citations the source has. The items are grouped according to the locations

of the nodes and the colors; three clusters are visible from the perspectives of the three colors. Many authors were selected, 30 in cluster 2; their links are 435, and the total link strength is 88720. The top 30 Co-citation with cited authors is in Table 3.

**TABLE 3: Co-citation with cited authors**

| NO. | AUTHOR | CITATIONS | TOTAL LINK STRENGTH |
|---|---|---|---|
| **1** | Jabbour C.J.C. | 661 | 20201 |
| **2** | Redman T. | 271 | 8468 |
| **3** | Paille P. | 253 | 8373 |
| **4** | Jackson S.E. | 244 | 8042 |
| **5** | Sarstedt M. | 231 | 7828 |
| **6** | Chen Y. | 212 | 6517 |
| **7** | Ringle C.M. | 193 | 6708 |
| **8** | Maguire S. | 189 | 5663 |
| **9** | Hair J.F. | 188 | 6383 |
| **10** | Ramayah T. | 184 | 6322 |
| **11** | Guerci M. | 180 | 6420 |
| **12** | Muller-Camen M. | 171 | 5967 |
| **13** | Boiral O. | 168 | 5685 |
| **14** | Tang G. | 168 | 5419 |
| **15** | Shen J. | 157 | 4909 |
| **16** | Daily B.F. | 154 | 5197 |
| **17** | Yusliza M.Y. | 151 | 5282 |
| **18** | Renwick D.W.S. | 146 | 4520 |
| **19** | Deng X. | 143 | 4460 |
| **20** | De Sousa Jabbour A.B.L. | 142 | 4683 |
| **21** | Dumont J. | 139 | 4413 |
| **22** | Sarkis J. | 138 | 4251 |
| **23** | Santos F.C.A. | 135 | 4638 |
| **24** | Renwick D.W. | 133 | 4619 |
| **25** | Yong J.Y. | 125 | 4684 |
| **26** | Afsar B. | 116 | 3603 |
| **27** | Nejati M. | 109 | 3658 |
| **28** | Pham N.T. | 107 | 3556 |
| **29** | Henseler J. | 105 | 3647 |
| **30** | Jiang Y. | 102 | 3324 |

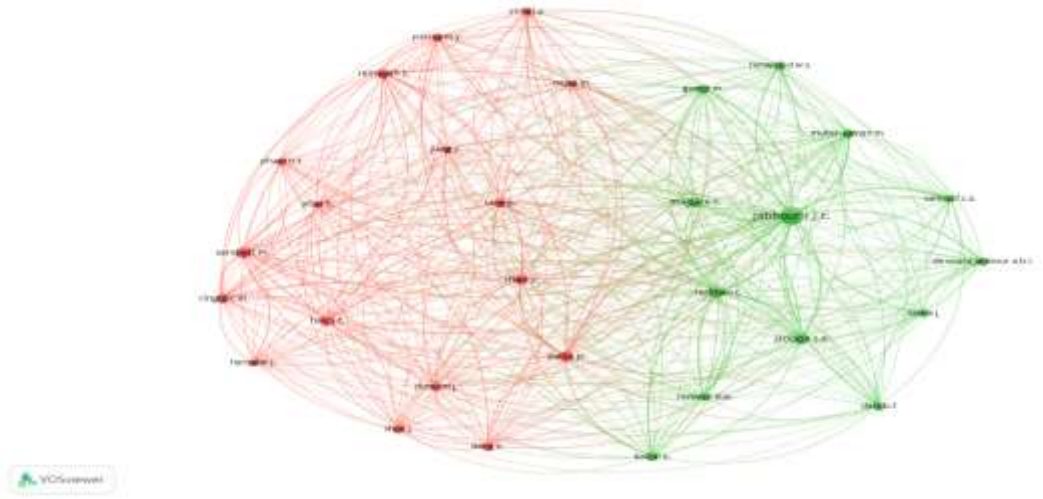


**Figure 5: Co-citation with cited authors**

### 4.1.4 Documents, Authors, Country with Citation

In the citation of documents, we found a minimum number of citations of documents, 100 of the 200 papers, 36 meet the threshold shown in Table **6.1**. For each of the 36 papers, the number of citation links will be calculated. The documents with the most significant number of links will be selected. So, the number of records to be selected is 36. In **Figure 6.1 are** s 34, cluster 6, and links 113. The top 36 citations are shown in Table 4.1; the highest document is Dumont (2017) with 681 citations.

**Table 4.1 Documents with Citation**

| S.NO. | DOCUMENT | CITATIONS | LINKS |
|---|---|---|---|
| **1** | Dumont (2017) | 681 | 11 |
| **2** | Saeed (2019) | 453 | 13 |
| **3** | Roscoe (2019) | 442 | 5 |
| **4** | Tang (2018) | 440 | 12 |
| **5** | Zaid (2018) | 433 | 2 |
| **6** | Ren (2018) | 372 | 11 |
| **7** | Yong (2020) | 315 | 5 |
| **8** | Chaudhary (2020) | 272 | 6 |
| **9** | Amrutha (2020) | 264 | 8 |
| **10** | Anwar (2020) | 264 | 7 |
| **11** | Chiappetta Jabbour (2019) | 260 | 4 |
| **12** | Renwick (2016) | 252 | 0 |
| **13** | Pinzone (2016) | 247 | 10 |
| **14** | Hameed (2020) | 224 | 6 |
| **15** | Gilal (2019) | 192 | 6 |
| **16** | Yusoff (2020) | 191 | 1 |
| **17** | Haddock-Millar (2016) | 191 | 15 |
| **18** | Yu (2020) | 176 | 5 |
| **19** | Mishra (2017) | 173 | 8 |
| **20** | Nisar (2021) | 172 | 3 |
| **21** | Ansari (2021) | 169 | 7 |
| **22** | Yusliza (2019) | 161 | 8 |

| | | | |
|---|---|---|---|
| **23** | Gupta (2018) | 154 | 7 |
| **24** | Fawehinmi (2020) | 142 | 4 |
| **25** | Gholami (2016) | 142 | 12 |
| **26** | Agyabeng-Mensah (2020) | 142 | 2 |
| **27** | Darvishmotevali (2022) | 139 | 8 |
| **28** | Malik (2020) | 122 | 2 |
| **29** | Shah (2019) | 119 | 3 |
| **30** | Shafaei (2020) | 114 | 6 |
| **31** | Zhang (2019) | 113 | 8 |
| **32** | Farrukh (2022) | 107 | 2 |
| **33** | Bhardwaj (2016) | 107 | 0 |
| **34** | Yusliza (2017) | 106 | 10 |
| **35** | Siyambalapitiya (2018) | 106 | 2 |
| **36** | Rubel (2020) | 102 | 7 |

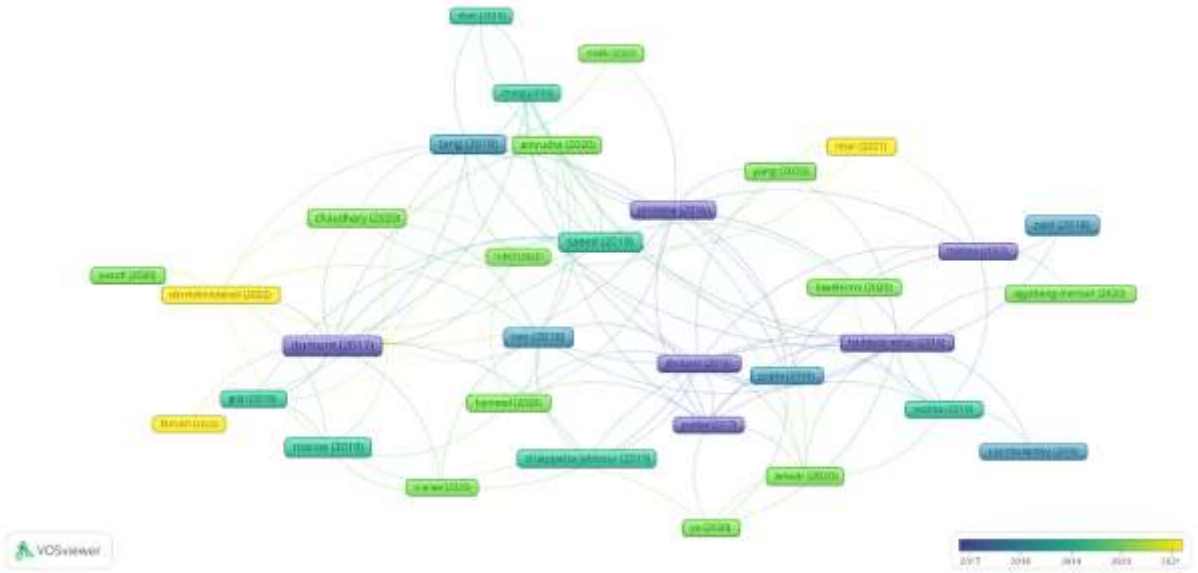


**Figure 6.1: Visualization network created based on Documents with citations**

In the citation of authors, we found a maximum number of authors per document of 25 and a minimum number of records of author 3; the minimum number of citations of an author is 100 of the 662 authors, and 15 meet the threshold shown in Table **4.2**. For each of the 15 authors, the total strength of citation links with other authors will be calculated. The authors with the greatest total link strength will be selected. So, the number of authors to be selected is 15, as shown in **Figure 6.2.**

**Table 4.2: Authors with Citation**

| NO. | AUTHOR | DOCUMENTS | CITATIONS | TOTAL LINK STRENGTH |
|---|---|---|---|---|
| **1** | Ramayah, T. | 3 | 422 | 0 |
| **2** | Chaudhary, Richa | 3 | 372 | 13 |
| **3** | Hameed, Zahid | 3 | 361 | 6 |
| **4** | Farrukh, Muhammad | 3 | 294 | 1 |

| | | | | |
|---|---|---|---|---|
| **5** | Muisyo, Paul Kivinda | 6 | 238 | 6 |
| **6** | Mughal, Yasir Hayat | 4 | 222 | 4 |
| **7** | Cao, Yukun | 3 | 201 | 3 |
| **8** | Malik, Saqib Yaqoob | 3 | 201 | 3 |
| **9** | Nisar, Qasim Ali | 3 | 196 | 0 |
| **10** | Julius, Mercy Muthoni | 6 | 175 | 7 |
| **11** | Ho, Thu Hau | 5 | 173 | 4 |
| **12** | Qin, Su | 4 | 170 | 3 |
| **13** | Raut, Rakesh D. | 3 | 164 | 1 |
| **14** | Umrani, Waheed Ali | 3 | 135 | 5 |
| **15** | Islam, Md Asadul | 4 | 128 | 0 |

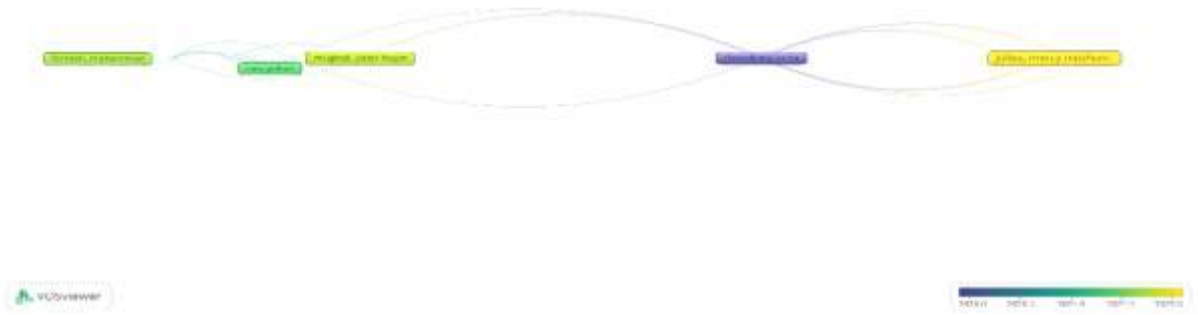


**Figure 6.2: Visualization network created based on authors with citations.**

In the citation of country, we found a maximum number of countries per document, 25, and a minimum number of records of country, 5, the minimum number of citations of a country, 100, of the 55 countries, 13 meet the threshold shown in **Table 4.3**. For each of the 13 countries, the total strength of citation links with other countries will be calculated. The country with the greatest total link strength will be selected. So, the number of authors to be selected is 13, as shown in **Figure 6.3.**

**Table 4.3 Country with Citation**

| NO. | COUNTRY | DOCUMENTS | CITATIONS | TOTAL LINK STRENGTH |
|---|---|---|---|---|
| **1** | China | 71 | 4959 | 1023 |
| **2** | Pakistan | 61 | 3234 | 779 |
| **3** | Malaysia | 57 | 3142 | 638 |
| **4** | United Kingdom | 30 | 2755 | 546 |
| **5** | Australia | 14 | 1977 | 430 |
| **6** | India | 43 | 1793 | 379 |
| **7** | France | 10 | 1510 | 290 |
| **8** | united states | 6 | 821 | 136 |
| **9** | Saudi Arabia | 13 | 452 | 162 |
| **10** | United Arab Emirates | 5 | 345 | 47 |
| **11** | Bangladesh | 9 | 217 | 129 |

| | | | | |
|---|---|---|---|---|
| **12** | Kenya | 6 | 175 | 85 |
| **13** | Bahrain | 5 | 126 | 62 |

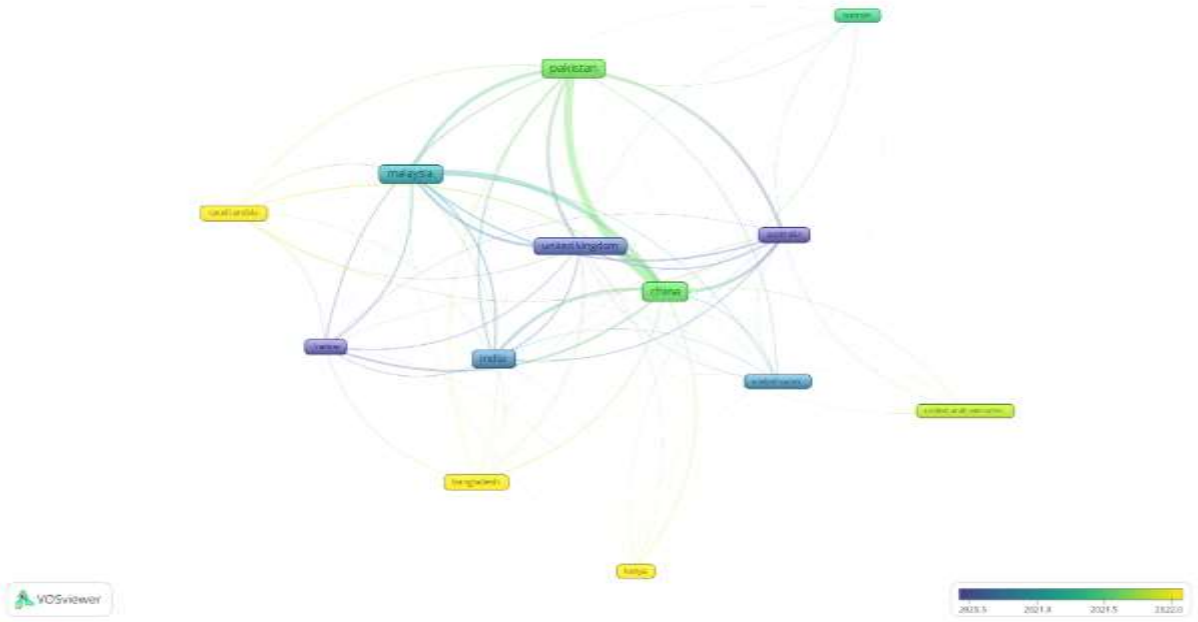



**Figure 6.3 Visualization network created based on the country with citations.**

### 4.1.5 Bibliographic Coupling with Sources

In the bibliographic coupling with sources, the minimum number of source documents is 5, and the minimum number of citations of sources is 0 of the 88 sources; 10 meet the thresholds shown in **Table 5**. For each of the 10 sources, the total strength of the bibliographic coupling links with other sources will be calculated. The sources with the greatest total link strength will be selected. In **Figure 7**, the number of sources selected was 10, cluster 1, links found 45, and total link strength 20472.

| NO. | SOURCE | DOCUMENTS | CITATIONS | TOTAL LINK STRENGTH |
|---|---|---|---|---|
| **1** | Journal Of Cleaner Production | 21 | 2579 | 7993 |
| **2** | Corporate Social Responsibility And Environmental Management | 6 | 1174 | 2617 |
| **3** | Business Strategy And The Environment | 7 | 996 | 2983 |
| **4** | International Journal Of Manpower | 12 | 734 | 5712 |
| **5** | Sustainability (Switzerland) | 19 | 549 | 7230 |
| **6** | Benchmarking | 6 | 453 | 3109 |
| **7** | Environmental Science And Pollution Research | 13 | 224 | 4751 |
| **8** | Cogent Business And Management | 6 | 194 | 2157 |
| **9** | Business Strategy And Development | 5 | 118 | 2036 |
| **10** | Frontiers In Environmental Science | 6 | 84 | 2356 |

**Table 5 Bibliographic coupling with sources**

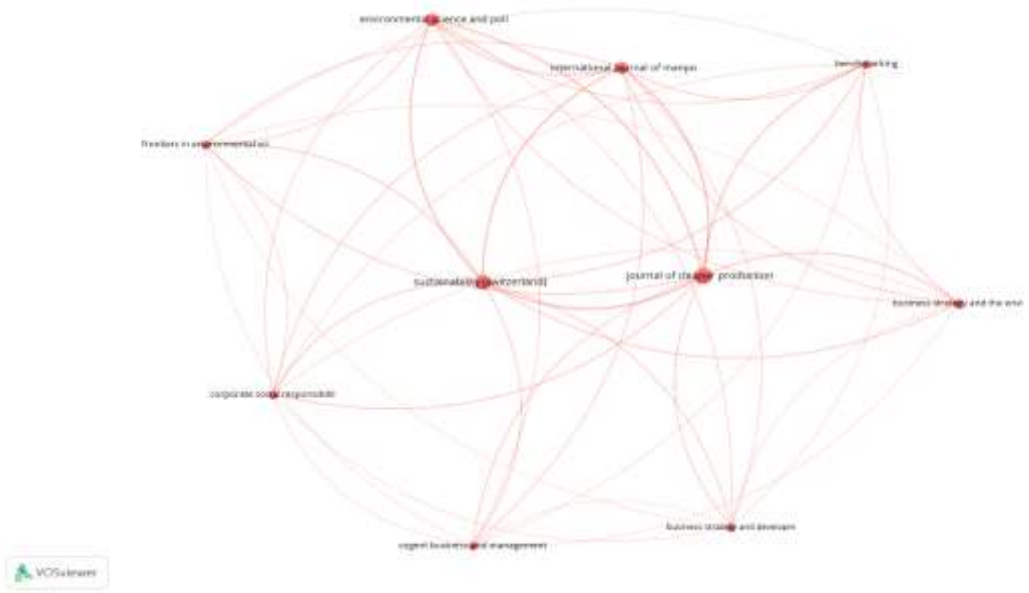


**Figure 7: Visualization network created based on Bibliographic coupling with sources**

### 5.1 CONCLUSION

Bibliometric analysis of GHRM Latest Bibliometrics: Topics that have gained growing interest, with contributions from various global regions, such as China, Malaysia, Pakistan, India, and the UK. Some of the critical themes and keywords in the analysis were "green human resource management," "human resource management," "environmental performance," "sustainability," and "corporate social responsibility." The findings indicated that GHRM practices, such as green training and development, green compensation and rewards, and green performance appraisal, were critical in attaining sustainable organizational performance. Employee engagement and empowerment are also necessary in creating environmentally friendly behavior that enhances the sustainable performance of organizations. It also pointed out that more studies are needed on the external factors associated with GHRM, such as top management commitment, corporate social responsibility, and stakeholder engagement in promoting GHRM practices. Therefore, the bibliometric analysis done in this paper gives an excellent representation of what GHRM research is currently looking at and presses on by emphasizing the need to integrate environmental sustainability with human resource management practices.

#### 5.1.1 Future Direction

Future research in Green Human Resource Management (GHRM) might investigate how corporate social responsibility, involvement of stakeholders, and top management commitment influence the growth of GHRM practices. Investigating how GHRM impacts behaviour, empowerment, and employee engagement is also essential. Additionally, it is crucial to look at how GHRM affects business sustainability and performance and determine the challenges and roadblocks that stand in the way of its successful application in various scenarios and circumstances. Lastly, GHRM models and frameworks must be established and assessed to benefit policymakers and experts in their practical application.

**REFERENCES**


1. Abdulrahim Zaid, A. A. (2019). *The impact of green human resource management and green supply chain management practices on sustainable performance* (Doctoral dissertation, Universiti Tun Hussein Onn Malaysia).
2. Alaghbari, A. J. (2023). Impact of green human resource management practices in enhancing the organization's performance. *Applied Science University Journal (ASUJ), 7*(5). https://doi.org/10.18576/jasu/070101.
3. Albloush, A., Alharafsheh, M., Hanandeh, R., Albawwat, A., & Shareah, M. A. (2022). Human capital as a mediating factor in the effects of green human resource management practices on organizational performance. *International Journal of Sustainable Development and Planning*, *17*(3), 981-990.
4. Ali, M., Shujahat, M., Fatima, N., Lopes de Sousa Jabbour, A. B., Vo-Thanh, T., Salam, M. A., & Latan, H. (2024). Green HRM practices and corporate sustainability performance. *Management Decision*.
5. AlKetbi, A., & Rice, J. (2024). The impact of green human resource management practices on employees, clients, and organizational performance: A literature review. *Administrative Sciences*, *14*(4), 78.
6. Amrutha, V. N., & Geetha, S. N. (2020). A systematic review on green human resource management: Implications for social sustainability. *Journal of Cleaner Production, 247*, 119131.
7. Ansari, N. Y., Farrukh, M., & Raza, A. (2021). Green human resource management and employees' pro-environmental behaviors: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management, 28*(1), 229-238.
8. Anwar, N., Mahmood, N. H. N., Yusliza, M. Y., Ramayah, T., Faezah, J. N., & Khalid, W. (2020). Green Human Resource Management for organisational citizenship behaviour towards the environment and environmental performance on a university campus. *Journal of cleaner production*, *256*, 120401.
9. Arulrajah, A. A., Opatha, H. H. D. N. P., & Nawaratne, N. N. J. (2015). Green human resource management practices: A review. *Sri Lankan Journal of human resource management*, *5*(1).
10. Bahuguna, P. C., Srivastava, R., & Tiwari, S. (2023). Two-decade journey of green human resource management research: a bibliometric analysis. *Benchmarking: An International Journal*, *30*(2), 585-602.
11. Benevene, P., & Buonomo, I. (2020). Green human resource management: An evidence-based systematic literature review. *Sustainability*, *12*(15), 5974.

12. Chaudhary, R. (2020). Green human resource management and employee green behavior: an empirical analysis. *Corporate Social Responsibility and Environmental Management*, *27*(2), 630-641.
13. Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human Resource Management, 56*(4), 613-627.
14. Fachada, J., Rebelo, T., Lourenço, P., Dimas, I., & Martins, H. (2022). Green human resource management: A bibliometric analysis. *Administrative Sciences*, *12*(3), 95.
15. Faheem, A., Nawaz, Z., Ahmed, M., & Haddad, H. (2023). Past trends and future directions on green human resource management and green innovation: A bibliometric analysis (2013-2023).
16. Faisal, S. (2023). Green Human Resource Management—A Synthesis. Sustainability. DOI: 10.3390/su15032259.
17. Faisal, S. (2023). *Green Human Resource Management—A Synthesis. Sustainability 2023, 15, 2259*.
18. Farrukh, M., Ansari, N., Raza, A., Wu, Y., & Wang, H. (2022). Fostering employee's pro-environmental behavior through green transformational leadership, green human resource management, and environmental knowledge. *Technological Forecasting and Social Change, 179*, 121643.
19. Gilal, F. G., Ashraf, Z., Gilal, N. G., Gilal, R. G., & Channa, N. A. (2019). Promoting environmental performance through green human resource management practices in higher education institutions: A moderated mediation model. *Corporate Social Responsibility and Environmental Management, 26*(6), 1579-1590.
20. Grapp, T. (2001). Nachhaltigkeit und Kooperation. *Zum Verständnis eines Leitbildes und Handlungstyps in einer komplexen Welt. Frankfurt a. M.: Peter Lang Europäischer Verlag der Wissenschaften*.
21. Haddock-Millar, J., Sanyal, C., & Müller-Camen, M. (2016). Green human resource management: a comparative qualitative case study of a United States multinational corporation. *The international journal of human resource management*, *27*(2), 192-211.
22. Haldorai, K., Kim, W. G., & Garcia, R. F. (2022). Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. *Tourism Management*, *88*, 104431. doi:10.1016/j.tourman.2021.104431

23. Hameed, Z., Khan, I. U., Islam, T., Sheikh, Z., & Naeem, R. M. (2020). Do green HRM practices influence employees' environmental performance?. *International Journal of Manpower*, *41*(7), 1061-1079.
24. Jabbour, C. J. C., Sarkis, J., de Sousa Jabbour, A. B. L., Renwick, D. W. S., Singh, S. K., Grebinevych, O., ... & Godinho Filho, M. (2019). Who is in charge? A review and a research agenda on the 'human side'of the circular economy. *Journal of cleaner production*, *222*, 793-801.
25. Kuo, Y. K., Khan, T. I., Islam, S. U., Abdullah, F. Z., Pradana, M., & Kaewsaeng-On, R. (2022). Impact of green HRM practices on environmental performance: The mediating role of green innovation. *Frontiers in Psychology*, *13*, 916723. https://doi.org/10.3389/fpsyg.2022.916723.
26. Maderazo, M. A. (2016). The change management in an academic institution: An organizational perspective. *Journal of Advances in Humanities and Social Sciences*, *2*(6), 310-320. doi: 10.20474/jahss-2.6.3
27. Mandago, R. J. (2018). Influence of green reward and compensation practice on environmental sustainability in selected service based state corporations in Kenya. *European Journal of Business and Strategic Management*, *3*(6), 1-12.
28. Merlin, M. L., & Chen, Y. (2022). Impact of green human resource management on organizational reputation and attractiveness: The mediated-moderated model. *Frontiers in Environmental Science*, *10*, 962531. https://doi.org/10.3389/fenvs.2022.962531.
29. Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. *International Journal of Organizational Analysis*, *25*(5), 762-788.
30. Nisar, Q. A., Haider, S., Ali, F., Jamshed, S., Ryu, K., & Gill, S. S. (2021). Green human resource management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior. *Journal of cleaner production*, *311*, 127504.
31. Opatha, H. H. P. (2013). Green human resource management a simplified introduction.
32. Pinzone, M., Guerci, M., Lettieri, E., & Redman, T. (2016). Progressing in the change journey towards sustainability in healthcare: the role of 'Green'HRM. *Journal of Cleaner Production*, *122*, 201-211.
33. 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.
34. Ren, Z., & Hussain, R. Y. (2022). A mediated–moderated model for green human resource management: An employee perspective. *Frontiers in Environmental Science*, *10*, 973692.

35. Renwick, D. W., Jabbour, C. J., Muller-Camen, M., Redman, T., & Wilkinson, A. (2016). Contemporary developments in Green (environmental) HRM scholarship. *The International Journal of Human Resource Management*, *27*(2), 114-128.
36. Roscoe, S., Subramanian, N., Jabbour, C. J., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, *28*(5), 737-749.
37. Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management*, *26*(2), 424-438.
38. 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*(1), 31-55.
39. Wijaya, E. F. A., & Qamari, I. N. (2024). Research and green human resource management: A bibliometric analysis. *Multidisciplinary Reviews*, *7*(5), 2024091-2024091.
40. Xie, H., & Lau, T. C. (2023). Evidence-based green human resource management: A systematic literature review. *Sustainability*, *15*(14), 10941. DOI: 10.3390/su151410941.
41. Yong, J. Y., Yusliza, M. Y., Ramayah, T., Chiappetta Jabbour, C. J., Sehnem, S., & Mani, V. (2020). Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management. *Business Strategy and the Environment*, *29*(1), 212-228.
42. Yu, W., Chavez, R., Feng, M., Wong, C. Y., & Fynes, B. (2020). Green human resource management and environmental cooperation: An ability-motivation-opportunity and contingency perspective. *international journal of production Economics*, *219*, 224-235.
43. Yusliza, M. Y., Norazmi, N. A., Jabbour, C. J. C., Fernando, Y., Fawehinmi, O., & Seles, B. M. R. P. (2019). Top management commitment, corporate social responsibility and green human resource management: A Malaysian study. *Benchmarking: An International Journal*, *26*(6), 2051-2078.
44. Yusoff, Y. M., Nejati, M., Kee, D. M. H., & Amran, A. (2020). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, *21*(3), 663-680.
45. Zaid, A. A., Jaaron, A. A., & Bon, A. T. (2018). The impact of green human resource management and green supply chain management practices on sustainable performance: An empirical study. *Journal of cleaner production*, *204*, 965-979.