


GREEN HUMAN RESOURCE MANAGEMENT FOR ORGANIZATION SUSTAINABILITY:
A BIBLIOMETRIC ANALYSIS

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 14 April 2023</p> <p>Accepted 10 July 2023</p>	<p>Purpose: The purpose of this paper is to quantitatively evaluate and measure various aspects of GHRM practices and aid in the comprehension of GHRM studies. It involves the statistical analysis of bibliographic data, such as citations, co-authorship patterns, publication trends, and other related information, to gain insights into the productivity, influence, and patterns of GHRM. A green working environment has captured the interest of both academia and business during the past ten years. This led to the emergence of new academic fields including green human resource management (GHRM). Greening the work environment refers to typical business functions such as supply operations, marketing, supply chain management, and human resource management. Organizations can execute and develop sustainable strategies with the aid of GHRM, which can also assist them in achieving corporate sustainability.</p>
<p>Keywords:</p> <p>Green Human Resource Management; Organization Sustainability; Environmental Performance; Green Practices; Environment Management.</p>	<p>Design/Methodology/Approach: In this study, 278 publications written in the English language were extracted from the SCOPUS database for nearly more than one decade, from 2010 to 2022. The author did not include the conference papers, book chapters, and papers written in other languages. These papers were analyzed using the VOS viewer software program, version 1.6.16 created by Van Eck and Waltman, and conclusions were drawn using the bibliometric analysis method. The methodology consists of the following steps: data collection, data analysis, and interpretation.</p>
	<p>Findings: The study reveals that authors like Renwick and Jabbour make a great contribution to the field of GHRM. The research trend of 278 papers shows that since 2015, the academic incline in the subject has grown and scholars have shown a keen interest in the field of GHRM. This indicates that GHRM studies acquired impetus after 2015. Asian nations, such as Malaysia and China, are home to significant authors and institutions that have emerged as prominent contributors to the field of GHRM research.</p> <p>Practical implications: This study provides some intriguing observations that can aid academics, managers, and top management in conceptualizing GHRM practices in their organizations, which are now only restricted to a few HRM practices such as</p>

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recruiting, selection, training, and reward. This paper clarifies green HR practices while concentrating on business sustainability objectives. It assists top management and senior managers in making GHRM a key component of accomplishing sustainable objectives. Additionally, these results may serve as a guide for future study into the GHRM field.

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GESTÃO ECOLÓGICA DE RECURSOS HUMANOS PARA A SUSTENTABILIDADE DA ORGANIZAÇÃO: UMA ANÁLISE BIBLIOMÉTRICA

RESUMO

Propósito: O objetivo deste documento é avaliar e medir quantitativamente vários aspectos das práticas de GHRM e ajudar na compreensão dos estudos de GHRM. Ele envolve a análise estatística de dados bibliográficos, tais como citações, padrões de coautoria, tendências de publicação e outras informações relacionadas, para obter insights sobre a produtividade, influência e padrões de GHRM. Um ambiente de trabalho verde captou o interesse tanto do meio acadêmico quanto das empresas nos últimos dez anos. Isso levou ao surgimento de novos campos acadêmicos, incluindo a gestão de recursos humanos verdes (GHRM). Ecologizar o ambiente de trabalho se refere a funções típicas dos negócios, como operações de suprimento, marketing, gerenciamento da cadeia de suprimentos e gerenciamento de recursos humanos. As organizações podem executar e desenvolver estratégias sustentáveis com a ajuda da GHRM, o que também pode ajudá-las a alcançar a sustentabilidade corporativa.

Design/Metodologia/Abordagem: Neste estudo, 278 publicações escritas em inglês foram extraídas da base de dados SCOPUS por quase mais de uma década, de 2010 a 2022. O autor não incluiu os documentos da conferência, capítulos de livros e documentos escritos em outras línguas. Estes artigos foram analisados usando o programa de software VOS viewer, versão 1.6.16, criado por Van Eck e Waltman, e as conclusões foram tiradas usando o método de análise bibliométrica. A metodologia consiste nas seguintes etapas: coleta de dados, análise de dados e interpretação.

Constatações: O estudo revela que autores como Renwick e Jabbour fazem uma grande contribuição para o campo da GHRM. A tendência de pesquisa de 278 artigos mostra que desde 2015, a inclinação acadêmica no assunto cresceu e os estudiosos têm mostrado um grande interesse no campo da GHRM. Isso indica que os estudos de GHRM adquiriram impulso após 2015. Nações asiáticas, como a Malásia e a China, abrigam autores e instituições importantes que surgiram como contribuintes proeminentes no campo da pesquisa de GHRM.

Implicações práticas: Este estudo fornece algumas observações intrigantes que podem ajudar acadêmicos, gerentes e gerentes de alto nível na conceituação de práticas de GHRM em suas organizações, que agora estão restritas apenas a algumas práticas de GRH, como recrutamento, seleção, treinamento e recompensa. Este documento esclarece as práticas ecológicas de RH e, ao mesmo tempo, concentra-se em objetivos de sustentabilidade da empresa. Ele ajuda a alta gerência e gerentes seniores a tornar o GHRM um componente-chave para a realização de objetivos sustentáveis. Além disso, esses resultados podem servir como um guia para estudos futuros no campo GHRM.

Palavras-chave: Gestão Ecológica de Recursos Humanos, Sustentabilidade da Organização, Desempenho Ambiental, Práticas Ecológicas, Gestão Ambiental.

GESTIÓN ECOLÓGICA DE LOS RECURSOS HUMANOS PARA LA SOSTENIBILIDAD DE LA ORGANIZACIÓN: UN ANÁLISIS BIBLIOMÉTRICO

RESUMEN

Finalidad: El propósito de este documento es evaluar y medir cuantitativamente diversos aspectos de las prácticas de GRM y ayudar a comprender los estudios de GRM. Incluye análisis estadísticos de datos bibliográficos, como citas, modelos de coautoría, tendencias de publicaciones y otra información conexa, para conocer la productividad, la influencia y las normas de GRM. En los últimos diez años, un ambiente de trabajo verde ha captado el interés tanto de la comunidad académica como de las empresas. Esto ha dado lugar a la aparición de nuevos campos académicos, incluida la gestión de los recursos humanos ecológicos. La ecologización del escritorio se refiere a funciones comerciales típicas, como las operaciones de suministro, el marketing, la gestión de la cadena de suministro y la gestión de los recursos humanos. Las organizaciones pueden aplicar y elaborar estrategias sostenibles con la ayuda del GEI, que también pueden ayudarles a lograr la sostenibilidad empresarial.

Diseño/Metodología/Enfoque: En este estudio, se extrajeron 278 publicaciones escritas en inglés de la base de datos SCOPUS durante casi una década, de 2010 a 2022. El autor no incluía documentos de conferencias, capítulos de libros y documentos escritos en otros idiomas. Estos artículos fueron analizados utilizando el programa de

software de visor de sistemas VOS, versión 1.6.16, creado por Van Eck y Waltman, y las conclusiones se sacaron utilizando el método de análisis bibliométrico. La metodología consta de las siguientes etapas: reunión de datos, análisis de datos e interpretación.

Hallazgos: El estudio revela que autores como Renwick y Jabbor hacen una importante contribución al campo de GHRM. La tendencia de investigación de 278 artículos muestra que desde 2015, la inclinación académica en el tema ha aumentado y los académicos han mostrado gran interés en el campo del GHRM. Esto indica que los estudios sobre los GHRM ganaron impulso después de 2015. Las naciones asiáticas, como Malasia y China, albergan a importantes autores e instituciones que han surgido como destacados contribuyentes en el campo de la investigación sobre los gases de efecto invernadero.

Consecuencias prácticas: Este estudio proporciona algunas observaciones intrigantes que pueden ayudar a académicos, directores y administradores de alto nivel en la concepción de las prácticas de GGHRM en sus organizaciones, que ahora se limitan a unas pocas prácticas de GRH, como la contratación, selección, capacitación y recompensa. Este documento aclara las prácticas ecológicas de HR y, al mismo tiempo, se centra en los objetivos de sostenibilidad de la empresa. Ayuda al personal directivo superior y al personal directivo superior a que el GEI sea un componente clave para lograr objetivos sostenibles. Además, estos resultados pueden servir de guía para futuros estudios en la esfera de los GRM.

Palabras clave: Gestión Ecológica de los Recursos Humanos, Sostenibilidad de la Organización, Desempeño Ambiental, Prácticas Ecológicas, Gestión Ambiental.

INTRODUCTION

Humanity has enjoyed prosperity and affluence because of the economic expansion of the last two centuries. However, the effects of various industrial practices cause damage to the environment in terms of pollution and the buildup of trash and residues. (Masson-Delmotte et al., 2018). Global efforts to reduce carbon emissions and settle up the damage from extreme weather caused by climate change have created new challenges (Jia, Liu, Chin, & Hu, 2018). Because climate change will lead to big changes in our social and economic system, society needs to prepare for and adapt to new possibilities (Fachada, Rebelo, Lourenço, Dimas, & Martins, 2022). In response to mounting governmental and public pressure, many business organizations control CO2 emissions and energy wastage to transition to environmental sustainability (Jia et al., 2018). To reduce the impact of organizations on the environment, we learn new ways of managing and studying the problem (Shrivastava & Berger, 2010). As a result, several linked subjects have received more attention, including environmental management (EM), business ethics, corporate social responsibility (CSR), socially responsible consumption, and sustainability plans, among others (Fachada et al., 2022). Green human resource management is a crucial issue that is being discussed in the literature more and more as a way to address environmental concerns (Ari, Karatepe, Rezapouraghdam, & Avci, 2020). The term "Green HRM" refers to the "systematic, deliberate alignment of conventional human resource management procedures with the organization's environmental goals." (Khan & Muktar, 2020). The term "Green HRM" refers to the "systematic, deliberate alignment of conventional human resource management procedures with the organization's environmental

aim."(Bahuguna, Srivastava, & Tiwari, 2022). By adopting a green perspective and using green communication channels, the GHRM serves as a scale for credibility and development that influences employees' green behavior and awareness (Tang, Chen, Jiang, Paillé, & Jia, 2018). GHRM increases an organization's credibility encourages employees to remain in their current companies and encourages better employees to be willing to be hired by green businesses (Renwick, Redman, & Maguire, 2013).

Business organizations must reconsider or revisit their corporate strategies in the context of today's corporate environment, where business frauds are on the top, the environment, society, poverty, hunger, economic security, climate change, education, and equality, and sustainability are of significant concern (Bahuguna et al., 2022). For an organization to remain sustainable, it must adopt a triple-bottom-line perspective that emphasizes its performance in terms of the environment, society, and the economy (Tiwari, 2015). Sustainable growth, in the words of (Wales, 2013), "involves a business model that delivers value commensurate with the long-term maintenance and augmentation of financial, environmental, and social capital. "Businesses can achieve triple-bottom-line performance when they work to become more environmentally friendly (Charbel Jose Chiappetta Jabbour, Jabbour, Teixeira, & Freitas, 2012). Waste management, supply chain, production process, human resource management, and strategic management are all impacted by an organization's efforts to go green (Benevene & Buonomo, 2020). Green workplaces are now widely regarded as necessary for gaining a competitive edge (Kiron, Kruschwitz, Haanaes, & Velken, 2012). To create a green workplace, typical corporate processes including supply chain management, marketing, operations, and human resource management must be greened. Additionally, combining various organizational activities is necessary to achieve the greening of the workplace (Charbel José Chiappetta Jabbour, 2013). GHRM and green supply chain management integration should be promoted as a way to improve sustainable performance in businesses (Charbel José Chiappetta Jabbour & de Sousa Jabbour, 2016). Therefore, concern for sustainability and the resulting greening of the workplace has given rise to new research topics like GHRM, green supply chains, and green marketing. GHRM is the acronym for this new study paradigm in the broader field of human resource management (Renwick et al., 2013).

According to a basic view of GHRM, green human resource refers to integrating green practices into HRM operations (such as hiring, development, performance management, and pay management) to increase the likelihood of organizational sustainability (Yong, Yusliza, & Fawehinmi, 2019). Based on the research, we define GHRM as "a socially responsible and

sustainable human resource management system, with a clearly defined philosophy and a set of strategies, policies, and practices with a triple bottom line focus." Recently, some positive reviews have been published to help us grasp the field's advancement (e.g. **(Paulet, Holland, & Morgan, 2021)**), **(Benevene & Buonomo, 2020)**, **(Yong et al., 2019)** and **(Khan & Muktar, 2020)** This was helpful and greatly influenced the development of the field. People have focused on different aspects of managing human resources in a way that is environmentally friendly because they have different opinions about it. The purpose of this research is to give a clear picture of what green human resource management is today, so that it can help with future studies and improve the study of green human resource management. The current study supports the research question:

Research Questions

RQ1: What have been the publication trends in GHRM during the past twelve years in terms of publication per year, documents by authors and co-authors, documents by country, highly cited Authors, and documents by subject area?

METHODOLOGY

Due to its ability to provide in-depth knowledge about a certain issue, bibliometric analysis has grown significantly in relevance in recent years **(Van Eck & Waltman, 2017)**. The authors used the bibliometric method to analyze the 278 articles retrieved from the SCOPUS database ranging from the years 2010 to 2022. The authors conducted a thorough bibliometric evaluation of GHRM scholarship using bibliometric and VOS viewer software since bibliometric analysis is a sophisticated and scientific tool to fully grasp any subject of research **(Markoulli, Lee, Byington, & Felps, 2017)**.

Selection of Database

The first step in bibliometric data analysis is to select a database that will support the goal of the research. To analyze the data and make decisions based on the analysis the data source must be trustworthy and reliable **(Rueda, Gerdtsri, & Kocaoglu, 2007)**. Database such as Google Scholar, WOS, and SCOPUS is reliable, trustworthy, and up to the mark. The authors select SCOPUS as our database for the study because it is the most prominent and globally used database by researchers. In this research, the researcher used SCOPUS data base to collect the

papers that were published in the English language between the years 2010 to 2022. The review did not include the conference papers and the papers written in other languages.

Research Scope

The research scope of this bibliometric analysis is only focused on green human resource management and sustainability. We just focus on the studies related to green human resource management and sustainability and exclude other studies related to this topic, we did not include the studies that are not specific to green human resource management. For instance, we did not include studies that utilized the term "green" as a catchphrase without mentioning a green approach to human resources. This study gives a clear picture about green human resource management by explaining the publications per year in this area, the countries wise interest in this area, the documents by authors and co-authors and the authors which are highly cited.

Search Criteria (Keywords)

In the SCOPUS database, the author searched the keyword, "Green human resource management" OR "GHRM" AND "Sustainability" by entering the keywords the result showed 278 documents related to GHRM and sustainability. The authors limited their search to only papers written in English to further refine their investigation. Researchers further restricted their search to peer-reviewed journal publications only because they are regarded as having "certified knowledge". The business magazine pieces, book sections, and conference papers that weren't intended to be purely scientific literature were also removed.

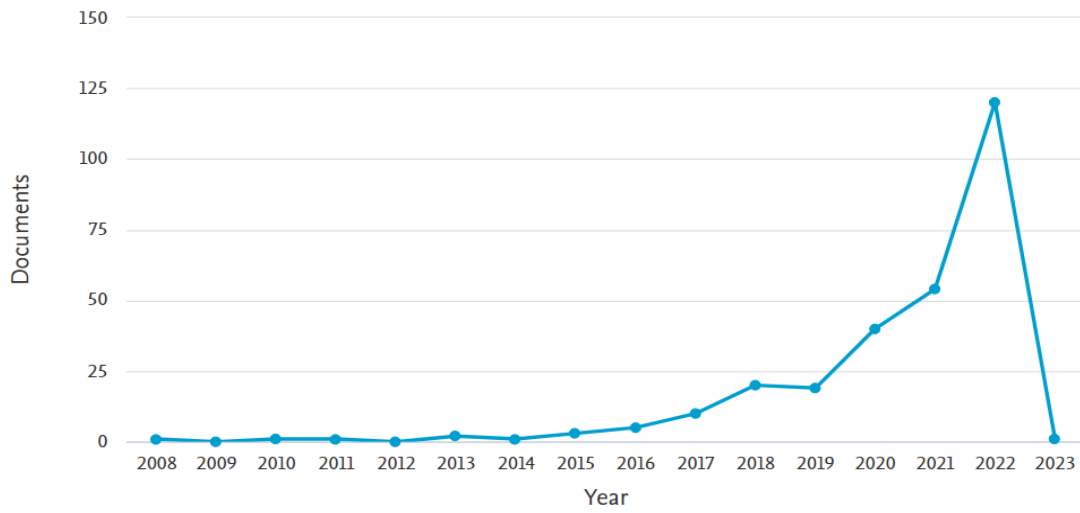
Analysis

For analysis, we used VOS viewer software to construct a bibliometric network between most cited authors and co-authors, authors and organizations, and authors and countries (Hoppen & Vanz, 2016).

ANALYSIS AND RESULTS

By searching the keywords "GHRM" in the SCOPUS database the total number of related documents was 278. Among those 227 were articles, 27 conference papers, 13 review papers, 10 book chapters, and 1 from another source. Figure 1 shows the year-wise publication in the field of GHRM.

Figure 1. The annual number of papers on GHRM in Scopus from 2008 until 2023.
 Documents by year

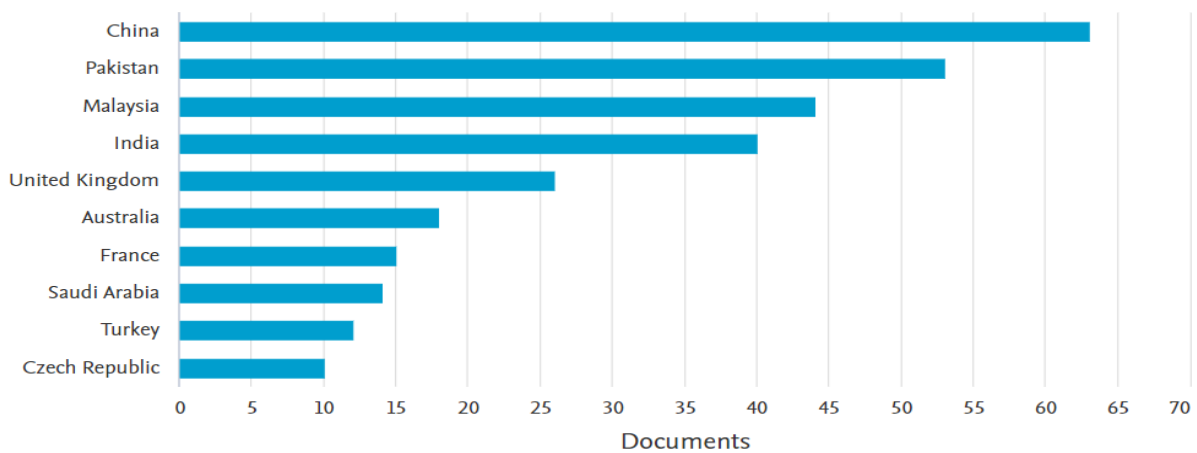


Source: SCOPUS Search

The graph above provides some fascinating data on the idea of green human resource management. The quantity of papers varies from 2008 to 2023, however, in 2020, 2021, and 2022 the concept was given too much weight in the opinion of academics. Out of 278 papers, 214 papers were published in these years. Due to the sudden surge in the literature, the upward trend of the graph indicates that the concept of Green HR is still in development. Figure 2 show that the paper published in the field of GHRM is dominated by, China (63), Pakistan (53), Malaysia (44), India (40), United Kingdom (26), Australia (18), France (15), Saudi Arabia (14), Turkey (12), Czech Republic (10). The number of publications in developed countries is more than in developing countries.

Figure 2. Documents Published in developed and developing countries, Scopus database.
 Documents by country or territory

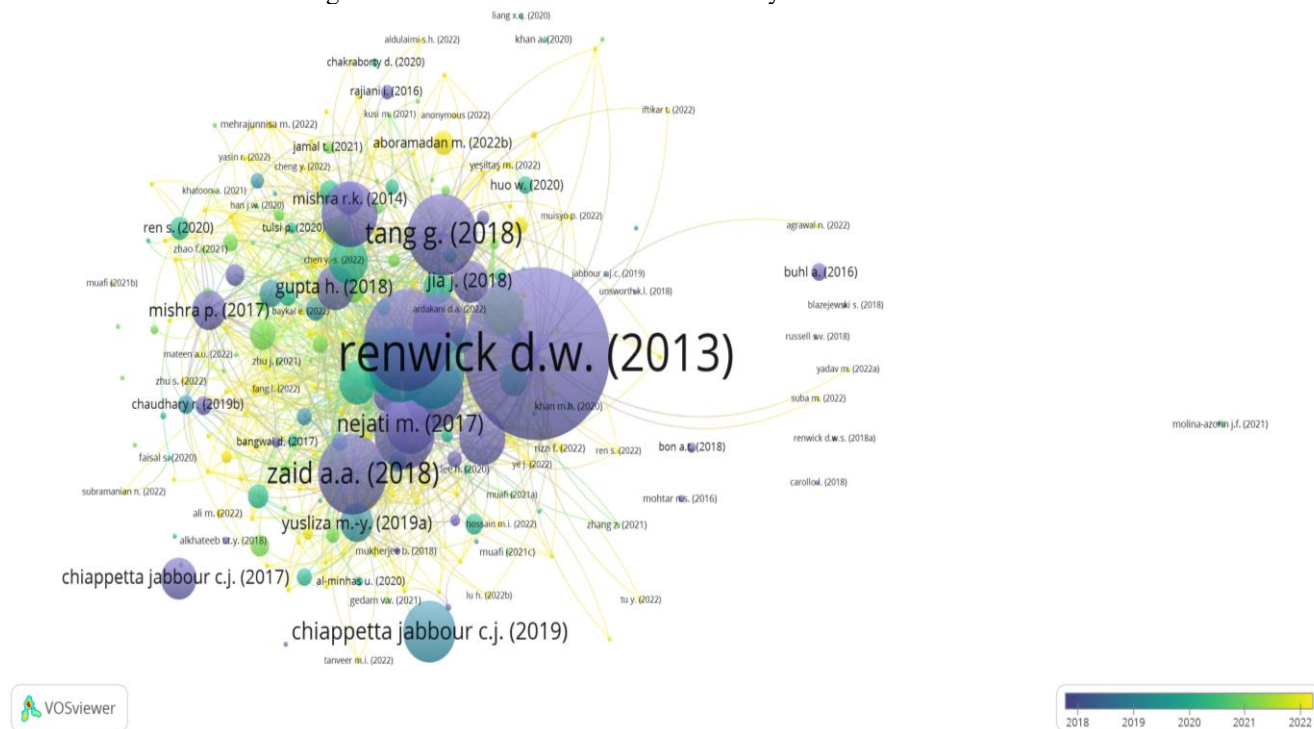
Compare the document counts for up to 15 countries/territories.



Source: SCOPUS Search

The most cited author is shown in figure 3. The result shows that the documents written by (Renwick et al., 2013) in the International Journal of Management Review (Jackson, Renwick, Jabbour, & Muller-Camen, 2011) in the German Journal of Human Resource Management, are the most cited article according to the Vos viewer analysis.

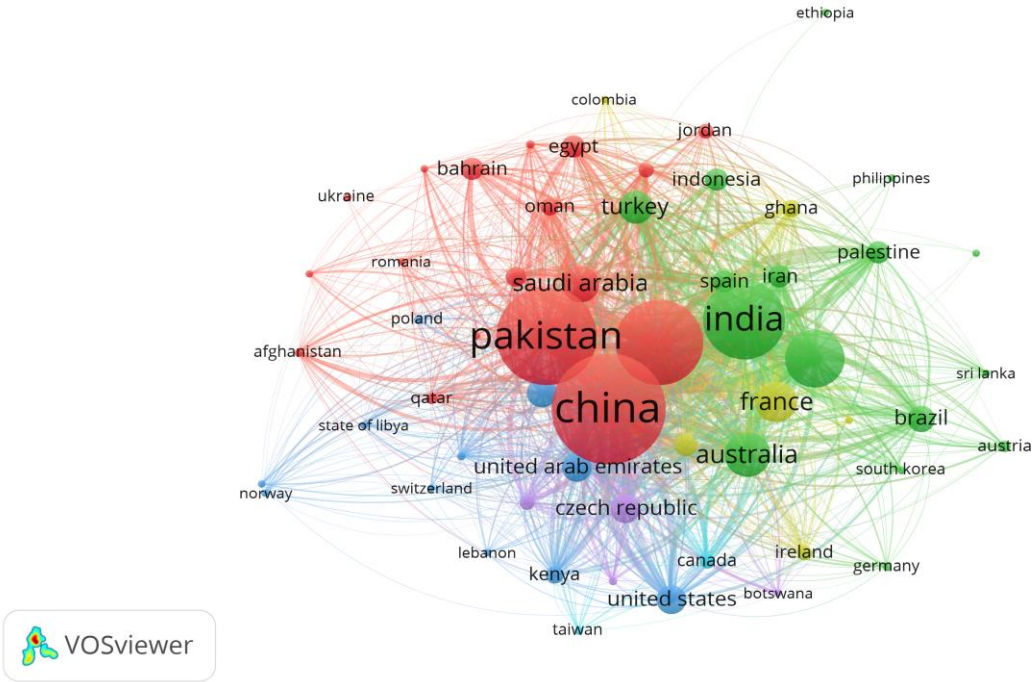
Figure 3. Most cited Author's elaboration by VOS viewer



Source: VOSviewer Analysis

Based on the network visualization by using VOS viewer Figure 4 is evident that Asian countries like China, Pakistan, and India are eagerly working in the field of GHRM. Most of the studies have been carried out in these countries followed by other countries.

Figure 4. Most interesting countries in GHRM by VOS viewer



Source: VOSviewer Analysis

Figure 5 provides the details of the most impactful authors. As is evident from the below figure Renwick and Jabbour are the most influential authors in the field of GHRM. They have written many articles in this field in author and co-authorship and their documents are cited by many other Authors.

GHRM is a subject that has recently gained attention and is now of major significance to both business and academics. This paper provides knowledge to the existing field of study in GHRM by providing information regarding the most interesting countries, most interested authors, most cited authors, and emerging keywords and clusters for GHRM research. The field of GHRM is still in its infancy stage and much research is carried out in this field from the last decade. This paper will contribute to the existing literature by being a drop of water in an ocean, this paper will lead to the researchers to find the relevant key words for research and also give them a clear picture of GHRM evolution from the last decades and highlights the key authors and coauthors which did more work in the field of GHRM and also provide a clear picture of the country wise documents in this field. Like other studies, this study also has some limitations. The first limitation is this study only relay on documents published on the SCOPUS database, secondly, the researcher with the same name is also a problem in this research. Thirdly the review is comprehensive but not exhaustive. The study recommended that future researchers should use SCOPUS and another database for comparative and exhaustive analysis, Additionally, more research should be done utilizing sociograms to determine the correlations between various factors in the field of GHRM.

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