



Sustainable Human Resource Management: a Bibliometric Overview

Indriana Rezkia Putri

Universitas Gadjah Mada, Yogyakarta, Indonesia
indrianarezkia@mail.ugm.ac.id

Abstract

The scope of human resource management still being one of the important topics to be studied. The diversity of existing studies required research data that has not been studied much such as sustainable human resource management. The aim of this study is to explore sustainable human resource management research trends over the past 13 years. The method used to explore research trends is literature review through bibliometric analysis. The results of bibliometric analysis identify the core study or author, as well as its relationships, by covering all related publications or specific fields. Publications related to sustainable human resource management from 2010-2022 are taken from international journals indexed by Scopus. Sustainable human resource management research trends visualized using vosviewer to analyze co-authorship and co-occurrence. The results show the trend of sustainable human resource management research is still not widely carried out, it will become a novelty in human resource management.

Keywords: Human Resource Management; Sustainable Human Resource; Bibliometric; Vosviewer; Novelty

Introduction

Human resources are one of core components in management. Human Resource Management (HRM) is related with the measurements of the people inside the organization. HRM is defined as management activity concerned with human resource which can apply to various task and challenge of their lives and organization (Boxall & Purcell, 2022). Human Resource include knowledge, skills, network, and energies of people and also their physical and emotion health, intellectual capabilities, personalities and motivation (Armstrong & Taylor, 2020). HRM capabilities are not limited to corporate organizations, but apply to all other types of organizations. This includes services, manufacturing, finance, philanthropy. This is critically important for people employed in various types of organizations to perform all tasks and activities in a well-organized manner and achieve desired results if they utilize their skills and competencies.

The development of the times will reform science and practice, including human resource management. Changes in industry influencers require changes in aspects of human resource management (HRM). Recent studies have focused on the impact of human factors on sustainable development and resource conservation. The growing focus on social responsibility and sustainable performance has led companies to set new goals beyond just financial gain, such as addressing social and environmental outcomes (Chams & García-Blandón, 2019). Recently, the concept of sustainable development or sustainability has gained prominence. Sustainability has been viewed as a competitive strategy that embodies an organization's philosophy as well as its strategy (Fobbe & Hilletoft, 2021). One of the responses of this topic was seen in sustainable HRM. Sustainable human resource management can be defined as apply HRM strategies and practices that enable achievement financial, social and ecological goals, with impact

inside and outside the organization and over a long period of time while controlling for unintended side effects and negative returns (Ehnert et al., 2016).

The facts about climate change are staggering and the economic challenges are daunting. HRM needs to be uniquely positioned for this. HRM can facilitate employee engagement and engagement in corporate sustainability efforts and integrate sustainability principles. Assist with her existing HRM processes and assist with internal and external coordination of multiple parties (Westerman et al., 2020). Additionally, HRM has a lot in common Multinational corporations (MNEs) in particular have begun to connect the concept of sustainability to areas that have an impact on the fundamental concerns of HRM, such as employee development, health, and employability. Its goal is to reconcile economic, social and ecological aspects of the company's goals and its HRM function. It also promotes sustainable development conditions for each employee and develops the capacity of the human resource management system to continuously attract, regenerate and develop motivated and active employees. These topics should be raised and developed.

The literature on sustainable human resource management abroad has some relevance to the current situation. But the gap is comes from Indonesia which discusses little more related to sustainable human resources management in academics and research. Sustainable human resource management cannot be separated from Sustainable development goals. From Sustainable Development Report that score the overall performance of all 193 UN Member States, Indonesia is ranked 75 with overall score 70.16. Given the expanding attention and relevance of SHRM, this study intends to map the literature through a bibliometric analysis that provides a reflection on the trend of SHRM from 2010 to 2022. Bibliometric analysis is the use of statistical methods to conduct a quantitative examination of scientific output. They provide quantitative rigor to the subjective assessment of the literature by focusing on many factors of interest that contribute to the characterization of a field of research, such as publications, journals, nations, languages, and organizations (Ellegaard & Wallin, 2015a).

These bibliometric methods have the ability to introduce a systematic, transparent, and repeatable review process, hence increasing review quality. They are a valuable tool in literature reviews because they direct the researcher to the most influential publications and map the study topic, so reducing subjective bias (Fachada et al., 2022). Bibliographic analysis will be aided in this work by the analog display (VOS) technique of the VOSviewer software package. Bibliometrics is an area of library and information science research in which quantitative methods are used to study bibliographic material (Broadus, 1987.; Donthu et al., 2021). A bibliographic study of a journal is a common approach to identifying a journal's trends in subject matter, highly cited articles, authors, institutions, and countries.

Conceptualization and empirical research on corporate sustainability strategies rarely include human sustainability goals in addition to environmental, social and economic objectives. Since (Pfeffer, 2011) posed the provocative question "why are polar bears or even milk bottles more important than humans?", little research or practice has changed to bring about the sustainability of people in the program of sustainable development. Only a few systematic reviews and bibliometrics analysis have been conducted on sustainable HRM (Anlesinya & Susomrith, 2020a), This article have updated and expanded on the prior trend in human resource research area by finding Sustainable Human Resource Management as the important issue if this decades

The objective of this study are to see the latest trends in the Human Resource Management science family, especially the relation with Sustainable Human Resource Management, and to identify the Sustainable Human Resource Management scientific

domain from all the research papers published in scopus during the period between 2010 and 2022. This study recommends that higher education institutions and researcher be aware of the importance of this issue. It is also important to note that environmental and organizational factors can lead to the sustainability of HRM in other institutions. As this is a relatively unexplored area of research, this study aims to investigate sustainable human resource management that is interconnected with the latest trends in the field of human resource management. Therefore, the study of sustainable human resource management is considered a new point of this research.

Method

This study used bibliometric analysis to descriptive the results of the publication journal. Bibliometric analysis has gained immense popularity in business research, Researchers use bibliographic analysis for a variety of reasons, such as to discover emerging trends in paper and performance evaluation, collaboration patterns and research composition, and to discover intellectual structure of a particular field in the existing literature (Donthu et al., 2021). Bibliometric methods include the application of quantitative techniques. Indeed, the directory method has been applied in various fields of business research, including human resources (Andersen, 2021).

Bibliometrics is a field of study in library and information science that uses quantitative techniques to examine bibliographic material (Broadus 1987). It is useful to develop a complete overview of trends in a research area, journal, or country (Hood & Wilson, 2001). Bibliographic analysis techniques fall into two categories performance analysis and scientific mapping. Essentially, performance analysis looks at the contributions of research components, while scientific mapping focuses on the relationships between research components (Donthu et al., 2021). The main reasons for performing these types of analyzes can stem from a number of factors and the desire to obtain an overview of the literature in many scientific fields. Traditionally, articles or surveys have provided this. A critical review article summarizing selected scientific content. This content is often scattered throughout the literature in conjunction with detailed bibliography on the field. In contrast, bibliographic analysis focuses on statistical data but is rarely used in conjunction with regional bibliography (Ellegaard & Wallin, 2015b). Thus, bibliographic analyzes allow the reader to know past trends in the subject, shed light on the topic's advances, and provide opportunities for further study (Durieux & Gevenois, 2010).

1. Choose the database

The first step in bibliographic analysis is to locate databases useful for research purposes. Therefore, data sources must be reliable and relevant to complete the analysis and make informed choices (Rueda et al., 2007). This research was conducted in the Scopus Index, the most important database used by researchers worldwide.

2. Scope of search

The scope of this bibliographic analysis includes studies of sustainable human resource management only. For example, studies that use the word “sustainability” as a buzzword without specifying an approach to sustainable human resource management will not be incorporated into the study.

3. Filter the criteria

Filtering the directory in Sustainable Human resource Management and English language only, checking the directory properties, and then performing the bibliographic analysis.

4. Measurement

For the analysis, VOS Viewer software was used because it examines the relationship between the most cited authors, the cooperation between different authors, the coordination between countries, organizations, keywords and knowledge related to the topic (Hoppen & Vanz, 2016).

Results and Discussion

The data has selected from Scopus with 174 articles related to Sustainable Human Resource Management. The results have been filtered based on the research subject area (business, management and accounting and economics), based on language (English), source (journal) and document type (article and conference paper). Based on selected articles about sustainable human resource management, the following is the result of visualization from VOSviewer.

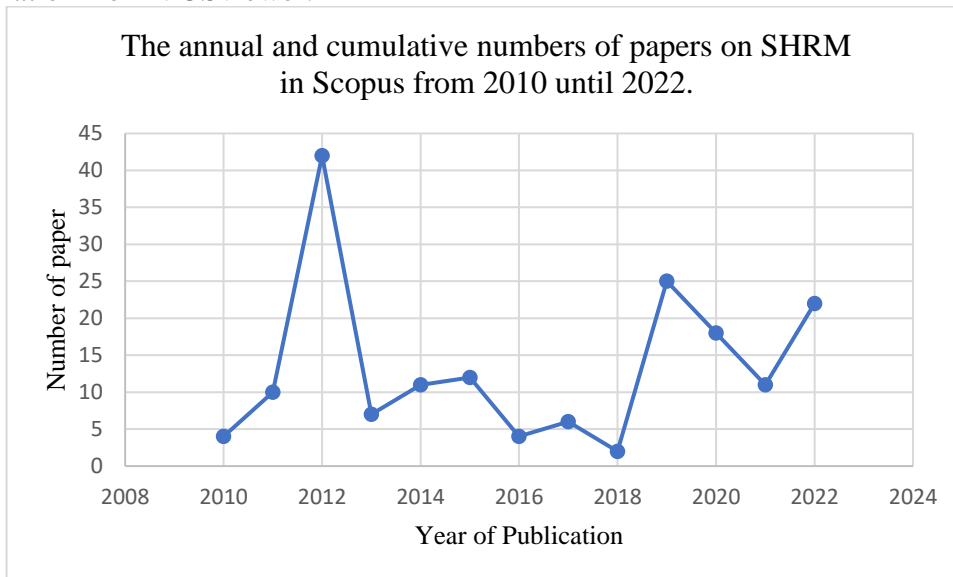


Figure 1. Cumulative Numbers of Papers on SHRM in Scopus from 2010 until 2022 (Source: Data Processed, Scopus)

The above graph is giving an interesting information regarding the concept of sustainable human resource management. From 2010 to 2022, there are fluctuative regarding the number of papers but the idea gained too much importance in the eyes of the scholars in 2012, 2019, 2022. 2012 became the highest publication year in the past ten years. During these years, the Sustainable Development Goals program was adopted by all the members of the United Nations in 2012 at the meeting of the Council of Rio de Janeiro with the aim of promoting a healthy and prosperous future. evolution of the planet and its inhabitants (UN DESA, 2023). On 2012, the theme of sustainability comes to a head. Out of 174 papers, 22 papers were published last year. This increasing trend of graph tells that Sustainable human resource management is still a developing concept because of the sudden increase in the literature.

This study employed the author's nation as the unit of analysis based on co-authorship analysis with minimum number of documents of a country is 2, which examines the author's collaboration with other writers in another country. Regarding the countries represented in Table 1 and the relationships between various countries, the interaction that occurs for subjects relating to sustainable human resource management is yet underdeveloped. Based on Table 1, it can be seen that the dominant country conducting research and connected with other countries is the United Kingdom with a total of 142 citations and has collaborated with five countries. These results are in line with a general

trend in research in the management sector, where the leading firms are US and European firms, followed by emerging Asian firms (GANTMAN et al., 2015)

The number of document citations is not always linear to the total link strength, this can be seen from the author from India is more than 177 citations even though research collaborations with other countries are smaller than the United Kingdom. Indonesia is still not included in the list of countries that discuss this topic in the scopus index like two other country in Southeast Asia, Malaysia and Thailand. In Figure 1, networks between nations are also visualized. The United Kingdom has worked with Australia, India, Greece, Thailand, and Nigeria.

Table 1. Co-authorship with Country as Unit Analysis

Country	Documents	Citations	Total Link Strength
Australia	7	45	1
Brazil	10	103	1
Canada	3	38	2
China	8	92	1
Czech Republic	10	9	0
Denmark	2	131	1
Egypt	2	0	0
France	6	33	4
Germany	4	76	1
Greece	2	13	1
India	13	177	2
Italy	7	161	1
Japan	2	5	0
Malaysia	12	38	2
Nigeria	3	15	2
Pakistan	4	104	1
Romania	18	13	1
Russian Federation	4	13	0
South Africa	13	20	2
Spain	3	52	2
Switzerland	2	5	1
Taiwan	3	1	0
Thailand	4	10	1
Turkey	5	13	2
Ukraine	2	19	0
United Arab Emirates	3	32	1
United Kingdom	13	142	5
United States	8	116	1

(Source: data processed, scopus)

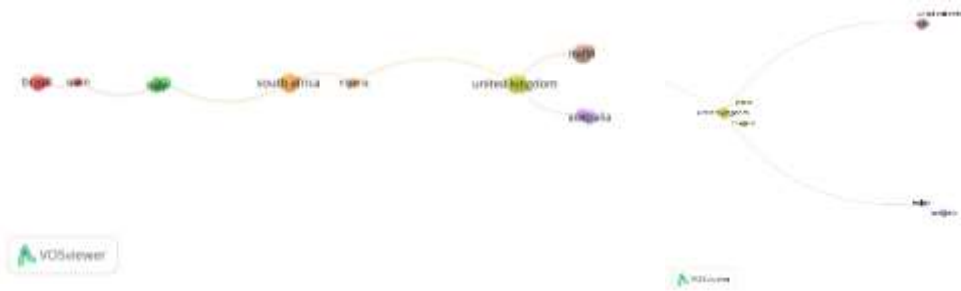


Figure 2. Visualization co-authorship with Country Unit Analysis
(Source: Data Processed, Scopus)

The studies are mainly carried out in the western regions of the world, although developing countries are also working to add to their knowledge. Closer coordination between countries will present a global picture of SHRM scholars. Based on 174 articles that have been selected, there is no related documents connected with Indonesia, provide research case locations or authors that have to motivate other HRM researchers to develop this topic and find novelty in their next study because of the important issue.

Through keyword co-occurrence (keywords that appear together in the same article), keywords analysis focuses on the distribution of the most frequently used keywords. The goal is to identify and highlight the most significant areas of study in sustainable human resource management. Here, only the author keywords that appear below the abstract are taken into account. The program calculates how many documents include three keywords together. The top three most used keywords are: human resource management, sustainability, dan sustainable development. Table 2 lists the top 22 keywords and shows the link strength of keyword occurrences and co-occurrences.

Table 2. Co-occurrence with Author's Keywords as Unit Analysis

Keyword	Occurrences	Total Link Strength
change management	3	1
corporate social responsibility	7	16
eco-innovation	3	2
employee retention	3	2
environmental management	8	13
green hrm	3	4
green human resource management	5	7
human capital	5	6
human resource development	4	6
human resource management	43	34
inclusion	3	6
industry 4.0	3	3
innovation	6	8
job satisfaction	4	1
knowledge	3	1
life cycle assessment	3	2
management	5	5
structural equation modeling	3	9
sustainability	38	35

sustainable development	31	16
sustainable hrm	4	6
training	5	5

(Source: Data Processed, Scopus)

The primary keywords are shown in Figure 2 together with the size of the nodes, the larger the node and the keyword, the more weight they carry, thicker lines indicate more co-occurrences, and the closer together the nodes are, the stronger the association they have. A cluster of keywords or a set of related terms is denoted by the software using the same color. Figure 2 plots the most commonly occurring keywords using threshold of three co-occurrence. The red cluster has the highest number of keywords, led by the word “human resource management” and “sustainable development”. The second cluster is that led by sustainability (in green). The third clusters is the ones led by the keywords “environmental management” (dark blue). The fourth cluster is “innovation” (yellow). The keyword “human capital”, “corporate social responsibilities leads the purple cluster. Job satisfaction which light blue cluster has far linking strength .

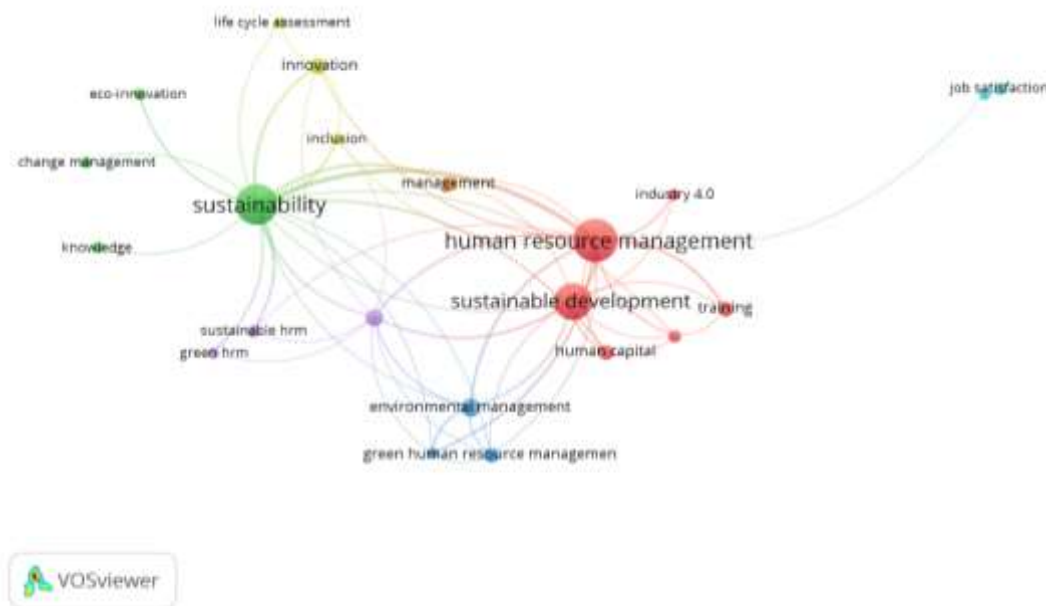


Figure 3. Visualization co-authorship with Country Unit Analysis

(Source: Data Processed, Scopus)

The co-occurrence of keywords indicates that the main topics of Human Resource Management related to sustainability belong to sustainability development, environment management, green human resource management, and sustainability development. From Figure 2, we can see that job satisfaction is not strongly related to sustainable development and green human resource management, or that sustainability hrm is independent of life cycle evaluation, and needs further scrutiny. Some keywords are linked to other keywords that have not yet been explored before, or other variables that may bring novelty to the topic of sustainable human resource management.

This study sheds light on researchers' bibliographic analysis of sustainable HRM from 2010 to 2022, according to the information available on the Scopus database. Our article provides an overview of the studies conducted on SHRM to identify research trends and common problems. Thus, this study presents a direction for scholars wishing to study SHRM, and this study provides information on the past, current scenario, and upcoming advances in the field of sustainable human resource management. stable to develop theoretical and conceptual models.

Co-occurrence keyword analysis using VOSviewer indicates that sustainable human resource management is related to human resource management and sustainable development. The output that can relate in the long-term goals are environmental management and organizational development with sustainability. In addition, for all stakeholders, the ultimate goal is environmental sustainability, consistent with the results of a bibliographic study conducted by (Kainzbauer & Rungruang, 2019) and a systematic review by (Anlesinya & Susomrith, 2020b). From the above discussion, it is clear that sustainable human resource management is important for corporate social responsibility and takes into account the interests of different resource owners; therefore, stakeholder theory is fully applicable. (Mariappanadar, 2012) mentions that the negative externality of increased work can exacerbate the psychological, social and occupational health problems of stakeholders, especially for workers and their family. In this context, managers must implement HRM policies to protect their most important stakeholders.

Based on the articles analysis with bibliometrics, we have identified various research limitations and, therefore, represent a number of potential contributions for consideration by future research projects. The present study suggests that future studies use comparison with Web of Science (WOS) or other databases to compare and analyze concepts in depth. Ultimately, these results can serve as a guide for future studies on sustainable HRM.

Conclusion

This study performed a simple analysis related to the topic of sustainable human resource management (HRM) using a quantitative approach with bibliographic analysis. The results of this study show that the relations among authors in one country are still very low with others, as thematically selected documents were also rare. Further review is needed to recognize the correlation, utility, and new variables to identify appropriate novelty for future research. This research shows that Indonesian researchers' contribution to the sustainable human resource management field is add a little contribution. However, given this fact, it provides an opportunity for more Indonesian researchers to investigate or explain various sustainable HRM phenomena in Indonesia that have yet to be discovered. This research encourages HRM Indonesia's researchers to collaborate in conducting joint research publications with world-class productive researchers from other countries. Many limitations of this study can be added to other types of advanced analysis and combined indexes for future research.

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