

Bibliometric Analysis of Human Resource Management Research In Sciencedirect Database: Trends and Future Directions

Rima Lestari^{1*}, Wita Loina Barus²

¹Universitas Widyatama Bandung, Indonesia

² Universitas Widyatama Bandung, Indonesia

*Correspondence email: rimalstri18@gmail.com
witaloinabarus@gmail.com

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ABSTRACT

This study aims to provide a comprehensive overview of the development trends in Human Resource Management (HRM) research through bibliometric analysis using data sourced from the ScienceDirect database. The background of this research stems from the increasingly complex and dynamic challenges in managing human resources, especially in the aftermath of the COVID-19 pandemic, which has shifted the focus of HRM toward digital transformation, work-life balance, and strategic employee retention. Employing a quantitative approach, the study utilized VOSviewer to analyze publication metadata, including authorship, institutional collaboration, keyword frequency, and emerging themes. The results show a significant increase in HRM-related publications after 2020, with dominant research topics including artificial intelligence in HR, employee engagement, and organizational performance. The mapping reveals strong research networks across leading institutions in Europe and North America, as well as evolving thematic clusters that reflect the interdisciplinary nature of modern HRM research. This study contributes to academic and practical discourse by offering a data-driven perspective on HRM knowledge structure and by identifying future research opportunities that align with current global challenges in workforce management.



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1. INTRODUCTION

Human Resource Management (HRM) is one of the core areas in organizational management that has experienced rapid development over the past few decades. HRM plays a crucial role in improving organizational performance by optimizing human capital, aligning employee competencies with strategic goals, and encouraging innovation (Poljasevic et al., 2025). HRM is defined as a management activity related to human resources that can be applied to various organizational tasks and challenges. Human resources encompass the knowledge, skills, networks, and energy of individuals, as well as their physical and emotional health, intellectual abilities, personality traits, and motivation (Putri, 2023).

Academic research in this area has expanded to address increasingly complex issues as social phenomena related to HRM have become more sophisticated and interconnected. The accumulation of research within a discipline forms a semantic structure that reflects socially shared research interests, themes, and concepts. This structure can be used as a lens to interpret concepts or phenomena relevant to the intellectual community (Chae et al., 2020). This growing academic interest is evident in a number of studies that attempt to explore how HRM is implemented within organizations.

Preliminary observations of the ScienceDirect academic database reveal a significant increase in HRM-related publications over the past two decades, particularly following the COVID-19 pandemic, which transformed the landscape of global HRM practices. Several prior studies have mapped the HRM literature. For example, Kaufman (2015) reviewed the conceptual evolution of HRM from classical to modern approaches. Marler and Boudreau (2017) highlighted the importance of data analytics in contemporary HRM practices. Meanwhile, a systematic review by Reichel and Lazarova (2022) revealed a shift in focus from transactional approaches to value-based and sustainability-oriented HRM. However, these reviews are generally narrative in nature and do not employ quantitative methods to comprehensively analyze the structure and dynamics of the literature. Systematic bibliometric analyses based on actual data from academic databases are still limited, especially those that use ScienceDirect as the primary source. The term *bibliometrics* was first introduced in the 1930s by Belgian documentarians and later reintroduced and popularized by Pritchard in 1969. Bibliometrics plays an important role in managing large volumes of scientific data and contributes significantly to research impact. Many variables—such as the development, accessibility, and availability of bibliometric tools like VOSviewer and scientific databases like

ScienceDirect—have significantly supported the widespread adoption of scholarly publication analysis (Passas, 2024).

The central problem raised in this study is the lack of recent bibliometric studies that comprehensively map HRM research trends from structured and credible sources such as ScienceDirect. This information is essential for academics to understand the HRM knowledge landscape, avoid topic duplication, and identify research gaps for future studies. Furthermore, there has been no mapping of the relationships between authors, institutions, keywords, and the most influential journals that shape the current discourse on global HRM.

This research is considered timely and important because HRM is a field that is highly responsive to social and technological changes, thus requiring constant updates in understanding its developmental trajectory. Over the past two years, topics such as the use of Artificial Intelligence in HRM, post-pandemic employee retention strategies, and work-life balance have become key themes in both academic and practical discussions at the national and international levels. Meanwhile, a substantial volume of HRM-related scientific publications in the ScienceDirect database is now available and can be processed through bibliometric methods to uncover the hidden structure of knowledge.

This study uses a bibliometric approach by utilizing publication data from the ScienceDirect database over a specific period. The research focuses on scientific publications relevant to HRM, using indicators such as the number of publications per year, the most productive authors, institutional collaboration, dominant keywords, and emerging themes. This method is expected to provide a comprehensive, data-based overview of HRM research mapping.

The objectives of this study are to: (1) Identify the trends in HRM research published in ScienceDirect, (2) Map the most influential authors and institutions, (3) Analyze dominant and emerging thematic keywords, and (4) Provide recommendations for future research directions in the HRM field. Based on these objectives, the research questions addressed are: (a) What are the publication trends in HRM within the ScienceDirect database during the specified period? (b) Who are the key actors (authors and institutions) influencing HRM research? (c) What are the major themes and current issues in HRM research according to bibliometric data?

The scientific novelty of this research lies in its systematic approach to analyzing HRM publication data using a bibliometric method based on the ScienceDirect database, which has rarely been conducted with such specificity. Additionally, the original contribution of this study is its ability to present a quantitative and visual intellectual map of HRM research, serving as a valuable foundation for developing future research agendas—both in academic and practical contexts.

2. LITERATURE REVIEW

Bibliometric Analysis

Bibliometric analysis is used to quantitatively examine written publications. This analysis relies on identifying collections of literature, including general publications in a particular field (Donthu et al., 2021). To conduct a comprehensive bibliometric analysis, it is essential to clearly define the research objectives to address specific problems or questions, thus maintaining a focused and relevant analysis (Passas, 2024). Various databases such as Scopus, Web of Science, or Google Scholar are useful for conducting a thorough literature search. Reference management tools such as EndNote, Zotero, or Mendeley can also be utilized to organize data and compile comprehensive datasets in selected formats (e.g., RIS format) (Jati, 2023).

Citation Analysis in Human Resource Management

Citation analysis in this study is used to identify influential references that have significantly shaped the literature in the field of Human Resource Management (HRM). Observations show that a number of scholarly works are frequently cited by other researchers, both theoretical and applied in nature. The most commonly cited references generally address topics such as digital transformation in HR practices, the impact of data analytics on HR decision-making, and issues related to employee well-being and sustainability. However, most of the previous studies remain narrative and have not yet integrated quantitative methods to map the overall knowledge structure. Therefore, this research aims to fill that gap by applying bibliometric analysis that can visually and systematically present the relationships between themes, authors, and institutions, thereby offering a more complete intellectual map of the HRM field.

3. METHODS

This research employs a quantitative method using a bibliometric approach to analyze scholarly publications related to human resource management available in the ScienceDirect database. The data were collected by filtering articles that contain the main keyword “human resource management” within the publication period from 2000 to 2024.

The collected data include metadata such as author names, institutional affiliations, keywords, article titles, publication years, and journal sources. These data were then analyzed using VOSviewer software to explore patterns of author collaboration, keyword relationships, and publication trends. The analytical indicators include the number of publications per year, frequency of keyword occurrences, institutions actively publishing in HRM, and authors with the most significant contributions. The visualization results were used to understand the direction of research development and the interrelationships among elements within the academic community.

4. RESULTS AND DISCUSSION

The analysis of the collected data reveals a significant increase in the number of publications related to Human Resource Management (HRM) over the past two decades, particularly after 2020. This phenomenon indicates a shift in academic attention toward emerging dynamics in the post-pandemic work environment.

Key Findings:

- **Growth of Publications:** The most noticeable surge in publications occurred during the 2020-2023 period, with topics such as HR digitalization, remote work, and work-life balance becoming major areas of focus.
- **Contribution of Authors and Institutions:** The study shows that the majority of publications originated from higher education institutions and research centers in Europe and North America. These were predominantly contributed by researchers with strong academic records in the HRM field.
- **Dominant Keywords:** Keywords such as “employee engagement,” “talent management,” “AI in HR,” and “organizational performance”

dominate the discussions and form several interconnected thematic clusters.

- **Collaboration Networks:** Data visualization uncovers the presence of cross-country and interdisciplinary collaborations, which enrich perspectives in global HRM research.

These findings demonstrate that HRM studies have moved beyond administrative approaches and evolved into a multidisciplinary field encompassing aspects of technology, work psychology, and organizational strategy. Through bibliometric analysis, patterns in the development of HR knowledge can be systematically identified, supporting more targeted planning for future research.

5. CONCLUSION

This study concludes that the trend of research in Human Resource Management (HRM) has experienced rapid growth, particularly after the year 2020. Through a bibliometric approach using the ScienceDirect database, the study found that the most researched topics include HR digitalization, employee engagement, and the application of technologies such as Artificial Intelligence in HRM practices. Authors and institutions from developed countries dominate academic contributions, indicating a significant opportunity for broader collaboration with institutions in developing countries, including Indonesia. The mapping of keywords and collaboration networks provides a clear picture of the current structure of HRM knowledge and the future direction of research development. This study contributes significantly to building an intellectual map of the HRM field and offers data-driven recommendations for future research agendas.

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