



A BIBLIOMETRIC ANALYSIS OF HUMAN RESOURCE DEVELOPMENT RESEARCH: TRENDS AND RESEARCH FOCUS FROM 2010 TO 2023

R.E. Suryana

Faculty of Defense Management, Universitas Pertahanan Republik Indonesia, Indonesia

Correspondence: E-mail: empep.suryana@idu.ac.id

ABSTRACTS

This research has the main objective of uncovering trends and research focus in the context of human resource development, using a bibliometric analysis approach, during the period 2010 to 2023. The dataset used comes from the Scopus platform and includes 817 publication metadata relevant to the topic under study. By applying the keywords "human resource development" OR "HR AND Development" in the article title column, and by limiting the research time span from 2010 to 2022, this research was able to identify main trends in the field of literature. The results of the analysis draw on research trends that specifically explore the application of technology as a strategy to improve individual performance in the context of human resource development. The implications of these findings are very relevant in supporting strategic decision making, both in the academic and practical realms. Furthermore, the research focus is also directed at several key topics, such as Artificial Intelligence, Organizational Performance, Workforce, Automation, and sustainability, creating a solid foundation for an in-depth understanding of the evolution and dynamics in human resource management literature.

Keyword: Bibliometrics, Human Resource Development, Performance, Technology.

ARTICLE INFO

Article History:

Submitted/Received

First Revised

Accepted

First Available online

Publication Date

1. INTRODUCTION

Human Resource Management (HRM) is an integral part of every organization that aims to manage and optimize human potential as a primary asset. In recent years, the dynamics of globalization, technological developments, and changes in business paradigms have had a significant impact on the field of HRM (Hubner and Baum, 2018; Kazakovs et al., 2015). In response to this changing environment, researchers, academics, and business practitioners have contributed to the literature by producing a large number of publications in the field of HRM (Sardak and Sukhoteplyi, 2013).

However, with the exponential growth of literature, it has become increasingly important to understand the emerging research trends (Lu, 2018; Wahid et al., 2023). Bibliometric analysis, which is a quantitative method for evaluating and measuring the impact of scientific literature, has become an invaluable tool in uncovering emerging research patterns, relationships, and trends in the HRM literature. Through bibliometric analysis, researchers can identify key concepts, influential authors, highly cited journals, and current research trends that guide the development of HRM science (De Rezende et al., 2018).

With the advancement of information technology and the availability of open data, bibliometric analysis provides a unique opportunity to gain in-depth insights into the evolution and direction of research in HRM. A bibliometric study of HRM publication trends will help to provide a comprehensive picture of the literature development, identify the dominant research focus, and evaluate the impact of scientific papers in supporting strategic decision-making at both academic and practical levels.

2. RESEARCH METHODS

The method used in the study is bibliometric analysis, namely a quantitative study of written publications that analyzes previous publications to measure their impact. This quantitative bibliometric research method was chosen because it can provide a mapping of previous research and can provide an overview of the trends of a research topic. The results of the bibliometric analysis will depend heavily on the data source (database) used, be it Scopus, WOS, Google Scholar, PubMed, or others. The selection of this database will later affect the results of the analysis, be it the impact, trend, or the relationship between the topics. In this study, the data source used was Scopus.

The selection of Scopus as a source of publication data is because Scopus is one of the indexers that has a large database with authors and publishers from all over the world. In addition, Scopus also contains more than 1.8 billion references cited since 1970. Scopus is one of the largest abstract and citation databases for peer-reviewed literature, providing global content of more than 6,000 titles from North America, more than 750 titles from the Middle East and Africa, more than 11,000 titles from Western Europe, more than 1,400 titles from Eastern Europe including Russia, more than 700 titles from Latin America, more than 2,000 titles from Asia Pacific and more than 300 titles from Australia and New Zealand. With such a vast database, it is possible to get a complete picture of global research output. The publication data search strategy used in this study is as follows:

```
(TITLE ("human resource development") OR TITLE (hr AND developement)) AND  
PUBYEAR > 2010 AND PUBYEAR < 2024 AND (LIMIT-TO (LANGUAGE, "English")) AND  
(EXCLUDE (SRCTYPE, "d"))
```

From the strategy above, the keywords used in this study are "human resource development" OR "hr AND Development" in the article title column, then the year limit used in the study is 2010 to 2022. With the provision that each publication must be in English. The search strategy produced a total of 817 published articles. The results of this search were then analyzed using VOSViewer and Rstudio.

3. RESULTS AND DISCUSSION

3.1. Analysis of Search Results

From the search results obtained through Scopus, the data is then exported in csv format, then the data in csv format is analyzed using two applications, namely VOSViewer and Rstudi using packed Biblioshiny (Nooh, 2021; Van Eck and Waltman, 2010). The results of the initial data analysis can be seen in Figure 1. From the data search results, we can see that the time span used in searching for this publication data applies from 2010 to 2022, with a total of 817 documents consisting of various types of publications such as journal articles, proceedings articles, books to book chapters. Furthermore, from the search results there are a total of 1508 articles with 226 single authors, the number of sources is 393, the number of keywords is 1904 and an average citation of 8.39 citations/publication.

These 817 publication documents are divided into several types of publications including journal articles, proceedings articles, books, book chapters and others. Based on the analysis of the search results, the most common type of publication is publication in the form of journal articles 57.9% with a total of 573 articles, in second place there are book chapters with 16.2% of the total publications as many as 132 chapters, in third place there are proceedings articles with 11.3% of the total publications as many as 92 proceedings articles. In addition to the three types of scientific publications, there are also publications in other forms such as reviews, books, erratums, notes, letters and short surveys, more details can be seen in **Figures 1 and 2** below.



Figure 1. Publication Data Search Results Information (Source: Scopus - processed by researcher)

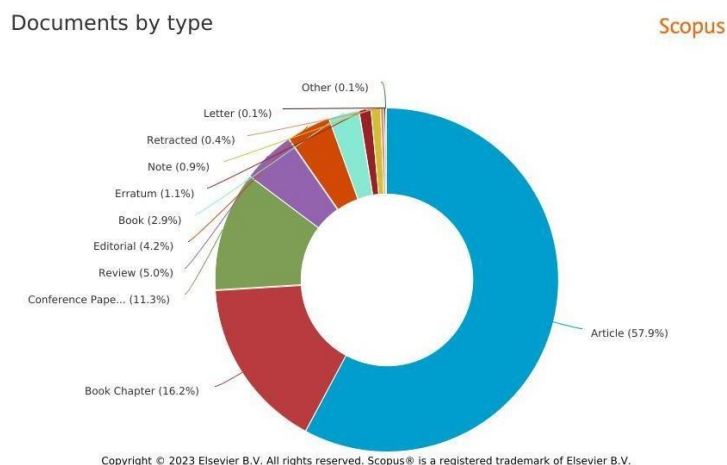


Figure 2. Publication Type (Source: Scopus - processed by researcher)

3.2. Field Of Study, Publisher and Author

Publications on the topic of human resource management development have in fact been widely conducted, in addition, research on this topic has also been conducted in various subject areas. **Figure 3** shows the presentation of publications on the topic of human resource development from various subject areas, from **Figure 3** we can see that the topic of human resource development is widely researched in the fields of Business, Management and Accounting with a total of 39.6% or 524 publications.

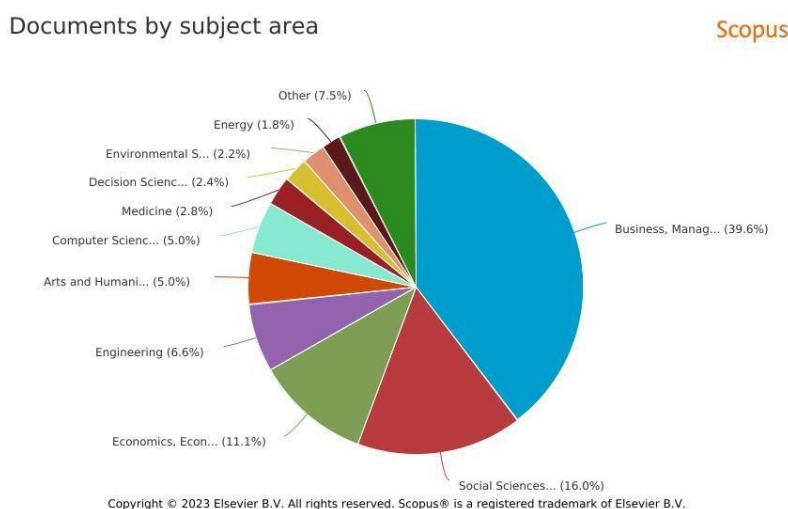


Figure 3. Publications based on scientific fields (Source: Scopus - processed by researcher)

As seen in **Figure 3**, in the second place is the field of social science with 16% or 211 publications and in third place is the field of economics and finance. From these findings we can see that the topic of human resource development is widely researched in various fields of science because indeed every field of science related to humans and their activities will certainly require development of humans themselves to be able to continue to evolve in accordance with the development of the times and technology.

Figure 4 below shows the top ten publishers that publish the most on the topic of human resource development. We can see that the list is dominated by large publishers that have publications in various fields of science such as Sage with a total of 88 publications, in second place is Taylor and Francis with a total of 64 publications and in third place is Springer with a total of 53 publications. Of the top ten publishers, there are no publishers from

campuses or universities, all publishers included in the top ten publishers are private institutions engaged in the field of scientific publications.

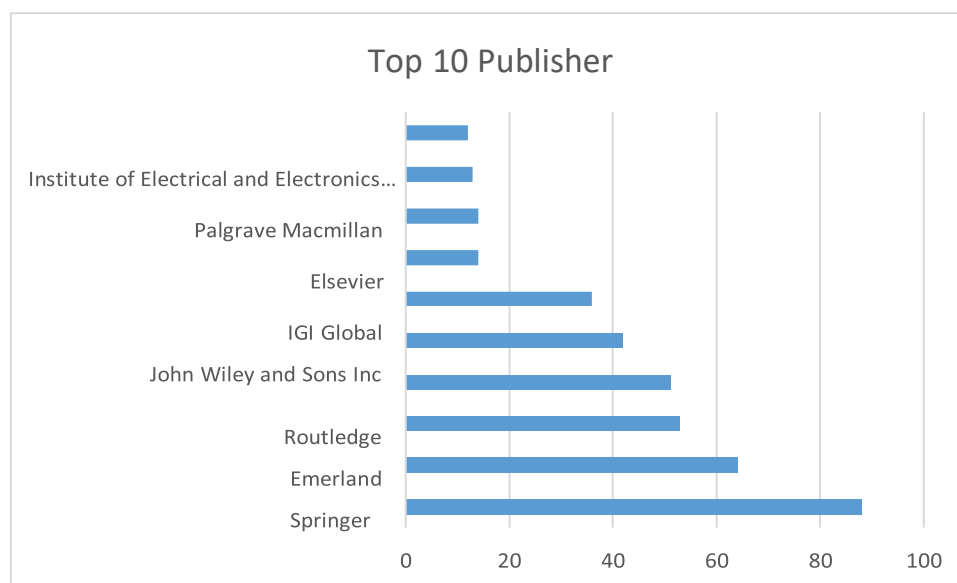


Figure 4. Top 10 Publishers (Source: processed by researcher)

Based on **Figure 4**, we can see that the top five publishers are occupied by large publishers with extensive networks and authors from various parts of the world such as SAGE with a total of 88 publications, Taylor and Francis with a total of 65 publications, Springer with a total of 53 publications and Emerland with a total of 42 publications.

Based on the results of this bibliometric search, the author with the most articles on the topic of human resource management is Garavan TN from Edinburgh Napier University Scotland then Mclean GN from the University of Minnesota and Park S from Louisiana State University with each total publication indexed in Scopus as many as 13 articles. **Table 1** below shows the 10 researchers or authors who have published the most research on the topic of human resource management.

Table 1. Author with the most articles

No	Authors	Afiliation	Articles
1	GaravanTN	Edinburgh Napier University	13
2	Mclean GN	University of Minnesota	13
3	Park S	Louisiana State University	13
4	Rocco TS	Louisiana State University	10
5	Collins jC	University of Minnesota	9
6	Yoon SW	Texas A&M University-Commerce	8
7	Akdere M	Purdue Polytechnic Institute	7
8	Poell RF	Tilburg University	7
9	Ardichvili A	University of Minnesota	6
10	Carbery R	University College Cork	6

Based on Table 1 above, we can see that from the top 10 authors, none of the authors are affiliated with campuses in Indonesia or even ASEAN regionally. Research on human

resource management tends to be conducted by top world campuses such as the University of Minnesota, Louisiana State University, and Texas A&M University.

3.3. Research Trends

As previously explained, the bibliometric data used in this study is data sourced from SCOPUS with publication years from 2010 to 2023. To be able to see research trends on the topic of human resource development, the author uses R-Studio software to help visualize research trends on the topic. The research trend on this topic is depicted in **Figure 5** below.

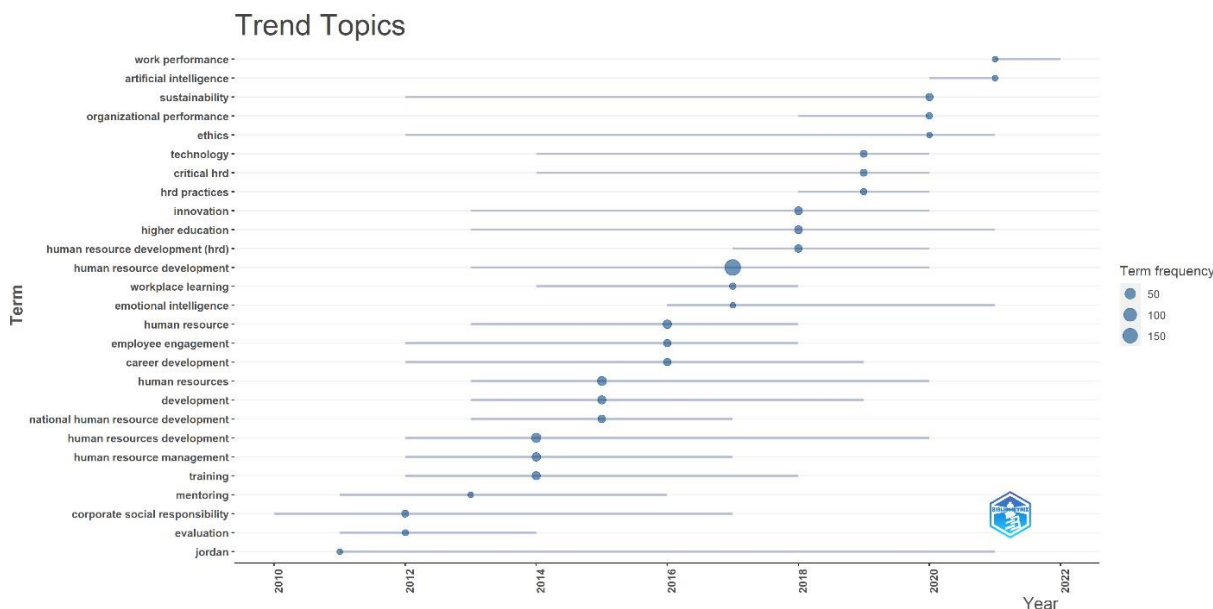


Figure 5. Research Trends (Source: processed by researcher)

From **Figure 5** above, we can see the research trend on human resource development from 2010 to 2022 because in 2023 the R-Studio software has not been able to help create the trend. If we look at the trend in the last 3 years, the direction of research on human resource development is more towards the application of technology and performance. Topics such as improving organizational performance, work performance, the use of technology to improve performance are examples of topics that are often raised (Arafat and Kurbani, 2021; Halim et al., 2022; Nasser and Jais, 2022; Widhiastuti et al., 2022).

Based on the analysis above, we can understand that one of the things that is currently a concern of human resource management development research is how to integrate technology into work or organizational activities so that it can improve the performance of the organization both individually and as a whole as an organization.

In addition to the research trends in **Figure 5**. The author also tried to create a visualization of the topic of human resource development using VOSviewer. The dataset used is still the same as the dataset used in the R-Studio application and with the same format, namely CSV. The results of the visualization using VOSviewer can be seen in **Figure 6** below.

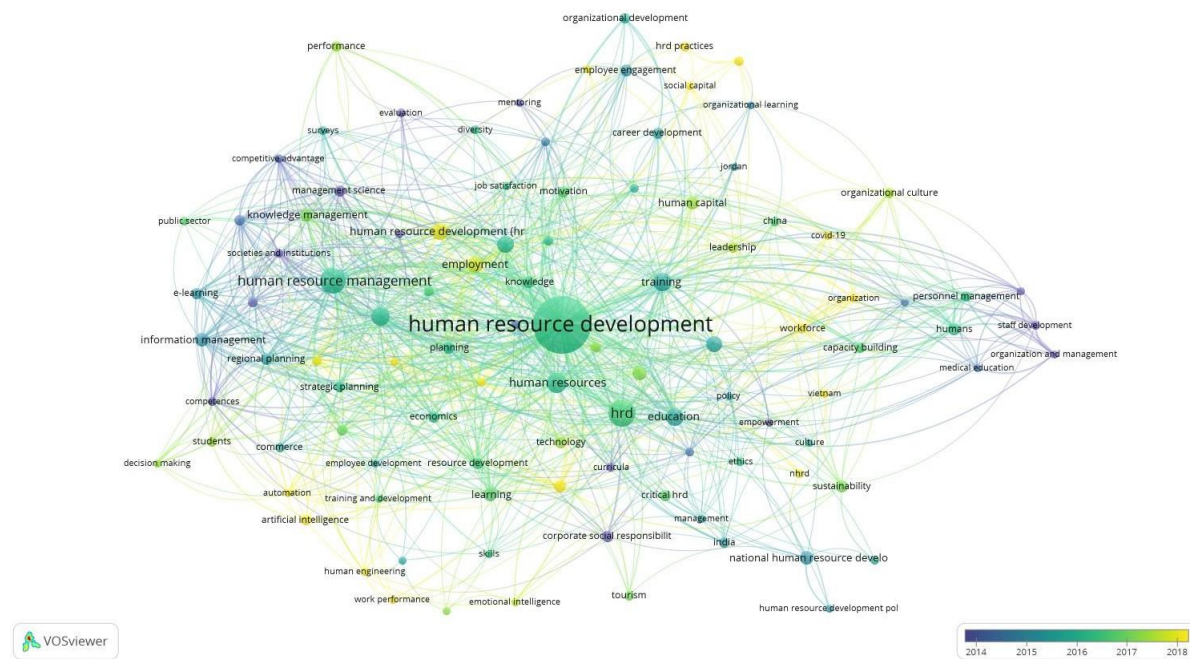


Figure 6. Network Visualization (*Source: processed by researcher*)

Referring to **Figure 6** above, the lighter the color of the circle that is on the side of the keyword, indicates that the keyword has been researched more recently, conversely, the darker the circle, the longer the keyword has been researched. Topics or keywords such as Human Resource Development, HRD, Training and Innovation are topics that have been widely researched for a long time. But topics that intersect with technology and performance are hot topics that are currently being researched a lot, such as Artificial Intelligence, Organizational Performance, Workforce, Automation, and sustainability are topics that are still often researched.

4. CONCLUSION

Human Resource Management is an important part of the sustainability of an organization. Human Resource Management (HR) has an integral role in an organization, especially amidst the significant impact of globalization, technological developments, and changes in business paradigms. Research on human resources itself has been carried out for a long time and is still being studied today. Bibliometric analysis is a critical tool for understanding the evolution and research trends in HR management literature, providing in-depth insights that support strategic decision-making at the academic and practical levels. The conclusion of the study shows that the trend direction of publications on the topic of human resource development is more inclined towards the implementation of technology in improving individual performance which can further drive organizational performance. Topics such as Artificial Intelligence, Organizational Performance, Workforce, Automation, to sustainability are topics that are still often researched and are still hot to be researched.

5. REFERENCES

Al Nasser, A., & Jais, J. (2022). The Effect of Organizational Culture on Organizational Performance of Saudi Higher Education: The Mediating Role of Human Resource Development. *education*, 6, 1-7.

- Arafat, Y., & Kurban, A. (2021). Analysis of Human Resource Development and Planning as Moderators of Employee Performance. *Humanities*, 9(1), 111-121.
- De Rezende, L. B., Blackwell, P., & Pessanha Gonçalves, M. D. (2018). Research focuses, trends, and major findings on project complexity: A bibliometric network analysis of 50 years of project complexity research. *Project management journal*, 49(1), 42-56.
- Halim, N. S. A., Hassan, S., & Kasin, R. (2022). Importance of Transfer of Technology Skills and Human Resource Development Skills in Work Performance of Extension Agent in Sarawak Cocoa Industry. *Pertanika Journal of Science & Technology*, 30(3). 2295-2313.
- Hubner, S. V., & Baum, M. (2018). Entrepreneurs' human resources development. *Human Resource Development Quarterly*, 29(4), 357-381.
- Kazakovs, M., Verdina, A., & Arhipova, I. (2015). Automation of Human Resources Development Planning. In G. E., C. S. 4 V. of Applied Sciences Sociotechnical Systems Engineering Institute, S. M., F. I. for Factory Operation, & M. Automation Sandtorstr. 22(Eds.), *Procedia Computer Science*, 77, 234-239.
- Lu, K. (2018, January). Trend Analysis of Mass Music Teaching under the Background of Quality Education. In *2017 7th International Conference on Education and Management (ICEM 2017)*, 7, 671-675.
- Nooh, M. (2021). VUCA: A Bibliometric Analysis of published literatures using R. *Reference to this paper should be made as follows: Nooh, MN (2021). VUCA: A Bibliometric Analysis of published literatures using R, J. Mgt. Mkt. Review*, 6(4), 222-234.
- Sardak, S., & Sukhoteplyi, V. (2013). Periodization and forecast of global dynamics of human resources development. *Economic Annals-XXI*, 3-4(1), 3-6.
- Van Eck, N., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *scientometrics*, 84(2), 523-538.
- Wahid, R., Shukri, S., & Ahmad, M. Z. (2023). A bibliometric analysis on trends, directions and major players of international relations studies. *Journal of International Studies (JIS)*, 19(1), 201-230.
- Widhiastuti, H., Asih, G. Y., & Kurniawan, Y. (2022). The implementation of occupational health and safety management system to improve performance of human resources development. *International Journal of Enterprise Network Management*, 13(2), 180-197.