

FORTY-FOUR YEARS OF A HOLISTIC PERSPECTIVE ON HUMAN RESOURCE MANAGEMENT IN LABOR RELATIONS

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Citation: Gürsoy, S. (2024). Forty-Four Years of a Holistic Perspective on Human Resource Management in Labor Relations. *Inquietud Empresarial*, e17934. https://doi.org/10.19053/uptc.0121 1048.17934

Editor: Blanco-Mesa, Fabio

Received: 29/07/2024. Accepted: 06/10/2024. Published: 20/01/2025.

Códigos JEL: O15, J53, M54

Type of article: Bibliometric



Abstract: Human Resources Management (HRM) is the department responsible for aligning individual efforts with organizational goals, enhancing labor productivity and achieving strategic objectives. Since the early 2000s, academic interest in HRM, a critical aspect of the modern workplace, has grown significantly. Considering the increase in interest for scientific research on HRM, the study aims to provide a holistic and up-to-date perspective on HRM studies. Given this increased scholarly attention, this study aims to provide a comprehensive and contemporary overview of HRM research. A bibliometric analysis was conducted using all HRM-related data from the Web of Science database between 1980 and 2024 via Biblioshiny function in Bibliometrix R package. Key findings point to a 16.7% annual increase in HRM research, averaging 9.14 studies and 22.81 citations per year. The cumulative number of studies in the field continues to rise, while the number of citations, although generally increasing, exhibits some fluctuation. The United States, China, the United Kingdom, and Australia are the most prominent countries of origin for researchers in this field. Our study offers valuable insights for future researchers through analyses of journals, authors, documents, and influential factors within HRM literature. Thematic maps derived from keyword analysis spotlight emerging areas, such as green HRM and environmental performance, which warrant further investigation. This research provides a comprehensive overview that can significantly benefit scholars in the field.

keywords: Human Resource Management, Human Resource, Management and Organization, Bibliometric Analysis

Cuarenta y cuatro años de una perspectiva holística de la gestión de los recursos humanos en las relaciones laborales

Resumen: La Gestión de Recursos Humanos (GRH) es el departamento responsable de alinear los esfuerzos individuales con los objetivos de la organización, mejorar la productividad laboral y alcanzar los objetivos estratégicos. Desde principios de la década de 2000, el interés académico por la GRH, un aspecto crítico del lugar de trabajo moderno, ha crecido significativamente. Teniendo en cuenta el aumento del interés por la investigación científica sobre la GRH, este estudio pretende ofrecer una perspectiva holística y actualizada de los estudios de GRH. Dado este aumento de la atención académica, este estudio pretende ofrecer una visión global y actual de la investigación sobre la GRH. Se realizó un análisis bibliométrico utilizando todos los datos relacionados con la GRH de la base de datos Web of Science entre 1980 y 2024 mediante la función Biblioshiny del paquete Bibliometrix R. Las principales conclusiones apuntan a un aumento anual del 16,7% en la investigación sobre GRH, con una media de 9,14 estudios y 22,81 citas al año. El número acumulado de estudios en este campo sigue aumentando, mientras que el número de citas, aunque aumenta en general, muestra cierta fluctuación. Estados Unidos, China, Reino Unido y Australia son los países de origen más destacados de los investigadores en este campo. Nuestro estudio ofrece valiosas perspectivas para futuros investigadores a través del análisis de revistas, autores, documentos y factores influyentes dentro de la literatura sobre GRH. Los mapas temáticos derivados del análisis de palabras clave ponen de relieve áreas emergentes, como la GRH ecológica y el rendimiento medioambiental, que justifican una mayor investigación. Esta investigación ofrece una visión de conjunto que puede beneficiar significativamente a los estudiosos de este campo.

Palabras clave: Gestión de recursos humanos, Recursos humanos, Gestión y organización, Análisis bibliométrico.

1 Introduction

The growing importance of sales and marketing in the post-1980s business landscape, driven by technological advancements and increased globalization, fueled a demand for sustainable competitive advantage among organizations (Hall, 2009). Recognized as a key driver of sustainable productivity growth, human capital emerged as a critical intangible asset (Edmans, 2011). This recognition underscored the importance of human resources in the workplace, a topic that garnered significant scholarly interest in the early 20th century and led to the development of human resource management (HRM) as a distinct academic discipline (Fernandez-Alles & Ramos-Rodríguez, 2009).

HRM, defined as a strategic partnership that transcends traditional personnel management, gained prominence in both the US and Europe after the 1980s (Legge, 1995). Through a focus on optimizing employee efficiency and productivity, and fostering employee career development, HRM has become essential to organizational success. The practical importance of HRM may have surged in the 1980s, but its theoretical foundations were solidified in the following decade, bringing about increased scholarly attention and a surge in related academic activities (Marciano, 1995). Early HRM research focused primarily on understanding its impact and identifying future research trends (Huselid et al., 2017). By the 2000s, HRM research had progressed significantly, establishing a strong theoretical foundation (Shirmohammadi et al., 2021). In disciplines where a certain maturity in research accumulation has been reached, new areas of inquiry often emerge in the field (Ramos-Rodríguez & Ruíz-Navarro, 2004). The evolution of human resource management, driven by technological advancements, has necessitated the exploration of new challenges, particularly within the fields of management and organization. This has created a need for a thorough analysis of HRM literature, incorporating diverse variables, which to date remains relatively unexplored (Pan et al., 2022). Despite the rapid growth in HRM research, studies employing systematic literature mapping within the current context are limited. Such studies, however, are crucial for providing a holistic understanding of the field and identifying future research directions (Pelit & Katircioglu, 2022).

The substantial growth of HRM research necessitates a holistic overview of the field. This study aims to analyze the trends, research foci, and dominant perspectives that have shaped the now mature discipline of HRM. Employing bibliometric analysis, this study charts the trajectory of HRM research, offering valuable insights into its evolution. It provides a contemporary and holistic perspective that can inform future scholarly endeavors in the field through exploration of research trends, influential authors, countries of origin, key documents, and keywords that stand out.

2 LITERATURE FRAMEWORK

The foundations of HRM were laid in the early 20th century with F. Taylor's principles of scientific management, emphasizing lean production, significantly impacted labor relations and productivity (Obedgiu, 2017). Further, the establishment of a dedicated HRM department at the National Cash Register Co. in 1901 (DeNisi et al., 2014) reflects the early recognition of HRM's strategic importance, particularly in resolving labor disputes or preventing union wars. The Chartered Institute of Personnel and Development, one of the oldest institutional HR associations, further developed the field, linking human resources to evolving union movements (CIPD, 2024). Throughout the 1930s, the Hawthorne studies at Western Electric were designed to improve worker productivity through various experiments with a more human-centered approach (Mayo, 2004). The proliferation of texts focusing on employee selection, evaluation, and departmental placement also accelerated the process leading to HRM (Scoot et al., 1941). In order to systematize working life after the Second World War, employee selection techniques were moved to a more institutional dimension after the 1950s and performance measurement techniques were developed (Guion & Gottier, 1965). However, the increasing pressure of trade union movements led to a shift to a structure that placed employees at the center. For this reason, in the 1960s and 70s, employers emphasized the importance of personnel management, considering that making employees partners in the business had a greater impact on productivity (Storey, 2014). Personnel management operated in a more static structure for employees with functions such as recruitment, selection, placement, accounting, promotion and discipline (Harris, 1982). However, during the period, the need for institutionalization in the association of normative and strategic paths beyond personnel management within the practices related to people management started to be discussed (Thornthwaite, 2012). The acceleration of global networks post-1980s intensified the understanding of global competition, leading to a rapid increase in the importance of Human Resource Management (HRM), which is believed to enhance employee productivity. Abidovna's (2024) terminological analysis reveals that personnel management and HRM have been used interchangeably. While these terms can be differentiated based on their fundamental functions, it is noteworthy that the use of "personnel management" has declined since "HRM" became prevalent in labor relations discourse. Finally, after the 1980s, there was a shift from the static personnel management approach to a dynamic HRM approach, which emphasizes building a strategic partnership between the organization and its employees. Swanson (1995) defines HRM as the development of human capital within the organizational process, aimed at enhancing employee performance, efficiency, and productivity. HRM departments have core functions in articulating this strategic partnership between employees and the organization. At this point, the basic functions of HRM (Dahiya et al., 2023) included the following:

- Training and development: Increasing the knowledge, skills and abilities of human resources
- Career development: Execution of duties and responsibilities given in the organization in line with individual goals,

- Talent development: Encouraging employees for organizational effectiveness and providing appropriate remuneration, responsibilities and rights,
- Flexibilization: It includes conditions such as the provision of an adaptable workforce in the context of flexibility in the competitive market.

In the process following the positive reflection of the impact of HRM on employee output, employees were seen as strategic resources and the tendency to analyze the strategic responsibility of the HRM department for achieving competitive advantages began to increase (Pfeffer, 1994). HRM plays a vital role for economic organizations to survive, ensure sustainable production, and direct competitive advantages (Pahuja et al., 2024). So much so that not only businesses but also academic institutions adopt strategic HRM to achieve competitive advantages and try to achieve cumulative development in scientific research by directing human capital (Hamadamin & Atan, 2019). Based on this, the interest in scientific research in HRM appears to be increasing day by day. Moreover, research on HRM, which has now reached great academic output, has been recognized as a major research area in multiple academic disciplines (Ogbeibu et al., 2024). The substantial body of HRM research necessitates holistic and contemporary analyses, leading to an increased reliance on bibliometric studies (Danvila-del-Valle et al., 2019). Fernandez-Alles and Ramos-Rodríguez (2009) highlight the novelty and value of bibliometric approaches within HRM research. Recognizing the vast amount of data within the field and the importance of up-to-date analyses, this study draws upon previous recommendations to provide a contemporary perspective.

Qamar and Samad (2022) conducted a bibliometric analysis of 125 articles, employing network, content, cluster, and theme analysis to examine the development, current state, and future research directions in HRM literature. Their findings emphasize the need for further in-depth research in this area. Likewise, Danvila-del-Valle et al. (2019) analyzed 900 articles, demonstrating the value of utilizing current data to understand the field's trajectory and identify key areas for future research, including author networks, citation patterns, and research clusters. Building on this foundation, this study employs network, cluster, and theme analysis to provide a thorough and modern interpretation of HRM research, offering valuable insights into future research directions.

3 METHODOLOGY

Draft paradigms in the social sciences often adopt philosophical stances that integrate quantitative and qualitative analytical approaches, encompassing both objective and subjective perspectives (Günbayı & Sorm, 2018). Bibliometric research can employ systematic literature reviews based on quantitative statistical data (Fan et al., 2022) and qualitative interpretations of quantitative findings (Abubakar et al., 2021). This study draws upon both realism, the philosophical foundation of quantitative research techniques, and idealism (Burrell & Morgan, 2019), which informs qualitative inquiry. By integrating these perspectives, the research aims to generate quantitative data and provide a nuanced qualitative interpretation. This approach aligns with the increasing trend of utilizing

bibliometric and scientometric techniques to extract holistic and interpretative insights from large-scale quantitative data (Arslan, 2022). Therefore, the bibliometric method was employed in this study to achieve a comprehensive understanding of the research topic, given the volume of data available.

3.1 Purpose

HRM has solidified its position as a critical coordinating system for companies—particularly since the 2000s—thanks to its ability to generate substantial economic value for both employees and employers, thus garnering significant attention from the academic community. While early research on HRM was limited, interest in the field has grown rapidly since the turn of the century. Even though primarily situated within the domain of economics, HRM research has expanded into various multidisciplinary fields. This growing interest has led to a substantial body of literature, indicating a continued accumulation of knowledge.

However, despite such abundance of research, there is a scarcity of studies to offer a comprehensive and modern analysis of HRM, and this gap in the literature calls for a new, holistic examination of the field. Therefore, this research aims to provide a comprehensive perspective on HRM, considering the vast and accumulating body of knowledge available.

3.2 Research Questions

The rapid growth of HRM research, which gained momentum after the 1980s with the formalization of labor relations, has created a complex field requiring comprehensive and holistic understanding. This research addresses the need for a current and comprehensive perspective on HRM by examining its evolution from its origins to the present day. Accordingly, this study presents a bibliographic analysis of HRM spanning its forty-four-year academic history. In addition to this overarching goal, the research explores the following sub-problems:

- What is the basic, general, holistic and current interpretation of HRM research?
- What is the productivity of HRM research, measured by the number of studies and citations?
- How can the productivity and collaborative networks of authors involved in HRM research be interpreted across different countries?
 - How can the influence of prominent publishers in HRM research be assessed?
- How do HRM research authors compare in terms of productivity, collaboration, and research themes?
- What are the seminal works in HRM research, and how can they inform future researchers?
- What is the frequency of keywords in HRM research, and what are the prevailing research trends based on keyword analysis?

- How are the future implications of thematic analysis of keywords in HRM research interpreted? What themes are evolving within the field of HRM based on thematic evolution findings?
 - How can the clusters formed by keywords in HRM research be characterized?

3.3 Scope of Data and Data Analysis

Data source selection can be considered as the most important factor for the validity and reliability of the study. With this in mind, this study utilizes the Web of Science (WoS) database, a recognized source of valid bibliographic data for bibliometric analysis (Durieux & Gevenois, 2010). The WoS database is the most widely used global platform that hosts valid, reliable, comprehensive historical data for conducting bibliographic analyses (Birkle et al., 2020). In addition, its established history as the earliest platform solidifies its reliability as a data source (Durmaz et al., 2023).

To ensure a thorough and holistic analysis, this research employed no limitations regarding index, data type, time period, or field of study. The research data was obtained by filtering in the query section of the WoS database. First of all, the Topic section was selected and the research title, abstract, keywords and plus were included in the scope. This is the most effective query restriction in the emergence of appropriate data for HRM. Then, by entering the word "HUMAN RESOURCES MANAGEMENT" in the search section, research directly related to HRM was accessed. A total of 20,881 documents subject to the analysis obtained on 01.07.2024 were revealed.

In order to conduct a comprehensive analysis of the extensive data available, the research technique was determined as bibliometric analysis. This method is recognized as a rapid, efficient, and highly effective technique for evaluating large datasets and extracting meaningful insights (Kurutkan & Orhan, 2018). It contains a range of findings such as the number of studies in the researched scientific field, productive tendency, effects of researches, author productivity, country of origin analysis, citation networks, distribution of scientific literature, revealing general relationship networks (Thanuskodi and Venkatalakshmi 2010). Since the bibliometric method reveals objective findings, it emerges as a more comprehensive, valid and reliable field of literature review (Wallin, 2005). The Bibliometrix-Biblioshiny application in the R package was used for the analysis of bibliographic data in the research. This software package and application is one of the leading scientific mapping tools for bibliometric analysis techniques (Aria & Cuccurullo, 2017). Bibliometrix-Biblioshiny facilitates the visualization of bibliographic data through interactive maps, effectively revealing research trends, productivity patterns, author networks, and other relevant insights (Ab Rashid et al., 2022). Tay (2022) highlights the emergence of Biblioshiny as a powerful and user-friendly bibliometric tool for business and management research. Moral-Muñoz et al. (2020) conducted a comparative analysis of various bibliometric software packages and concluded that Biblioshiny offers a leading range of analytical options. Given its contemporary relevance

and comprehensive functionality, Biblioshiny was selected for the analysis of the research data in this study.

4 RESULTS

Bibliometric data offers valuable insights for developing a comprehensive and current understanding of a research field. It is essential to present key findings to provide a holistic assessment of HRM research within the Web of Science database. This section highlights those findings, offering a comprehensive overview of the field.



Figure 1. Main Findings of the Research

Analysis of the Web of Science database reveals that research on Human Resource Management (HRM) originated in 1980 and has continued consistently through July 2024. A total of 20,881 studies on HRM were identified, with an average of 22.81 citations per document and a substantial annual growth rate of 16.7%, which indicates a growing research trend within the academic community. The analysis pinpointed 35,070 authors contributing to HRM research, with 25.05% of them engaging in international collaborations. This demonstrates a high level of research activity in the field, with approximately one in four studies involving international co-authorship. Each study has an average of 2.77 authors. Also, the analysis identified a total of 29,336 keywords and 544,703 cited references across all documents. These findings reveal the extensive and multifaceted nature of HRM research over the past forty-four years, characterized by significant diversity and complexity across temporal, geographical, contextual, and methodological dimensions.

Historical findings on HRM are very important for determining the infrastructure of the related field and providing directions for the future. Examining publication trends and citation patterns provides insights into the field's trajectory and its level of influence within the academic community.

4.1 Annual Production and Citation Findings

Figure 2 illustrates the productivity of academic research on HRM, revealing a significant increase in publications since its inception. While only one study was published in 1980, this number rose to five in 1981, representing the highest proportional increase in publications. Although publication numbers fluctuated until 2004, a consistent

upward trend emerged from 2005 onwards. Of particular note, periods of sudden decline in research output were observed between 1980-1981 and 2004-2005. The year 2023 witnessed the highest number of HRM publications to date. Furthermore, with nearly 900 studies published in the first half of 2024, this year is on track to surpass 2023 and become the most prolific year in the field's 44-year history. This sustained growth trajectory suggests a continued rise in HRM research.

As opposed to the steady growth in publications, the annual average number of citations exhibits a more volatile pattern. The first peak in citation activity occurred in 1987 with an average of 1.94 citations per study, followed by fluctuations in subsequent years. A second surge was observed in 1996, reaching 3.36 citations per study. The highest average citation count was recorded in 2003 at 4.15, a level not yet surpassed despite intermittent increases and decreases. This fluctuating citation pattern suggests that whereas the volume of HRM research has grown significantly, its impact and integration within the broader academic discourse may show varying trends.

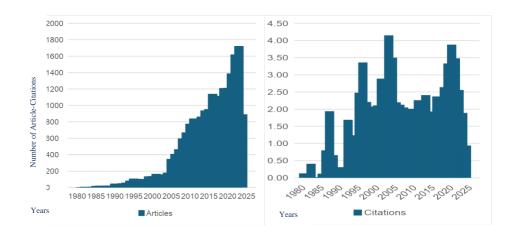


Figure 2. Number of Research on HRM and Average Annual Citations

4.2 Productivity of Origin Countries

HRM research is influential in major academic trends and diffusion, especially for regions of exposure. The countries of affiliation of the authors conducting HRM research provide insights into which country places more emphasis on research. As the work of nationals becomes more concentrated, a dark blue image emerges from the light blue. Moreover, the greater the network of cooperation between countries, the thicker the network lines.



Figure 3. Productivity of Countries and Relationship Networks

Figure 3 reveals the global distribution of HRM research, highlighting the United States as the leading contributor with 8,402 studies. China follows closely with 8,157 studies, and the United Kingdom ranks third with 6,497 studies. Australia, India, Spain, and Germany also demonstrate substantial research output with 4,217, 2,438, 2,207, and 1,794 studies, respectively. These figures indicate a concentration of HRM research within these key countries, with a significant prevalence of international co-authorship. When examining authorship by country of origin, China takes the lead, accounting for 14.2% of total publications with 2,973 studies. The USA follows with 12.9% (2,687 studies), and the UK contributes 9.7% (2,020 studies).

A historical analysis of authorship reveals that the first HRM study in 1980 originated from the United States. Throughout 1981, research activity remained exclusively within the United States. However, in 1982, researchers from the United Kingdom joined the field. Australia entered the landscape in 1983, and these three countries dominated HRM research until 1991. The inclusion of India in 1991 and China in 1994 marked a significant diversification of research origins.

Citation analysis further emphasizes the influence of the United States, which garnered 150,296 total citations with an average of 55.90 citations per article. Despite ranking third in publication output, the United Kingdom exhibits a strong citation impact with 58,919 total citations and an average of 29.20 citations per article. While China's research output is substantial, its citation impact is comparatively lower, with 35,043 total citations and an average of 11.80 citations per article, the lowest average compared to the other top ten countries in the citation ranking. The total number of citations to Australian researchers was 30,289 with an average of 23 citations per article, while the total number of citations to Dutch researchers was 18,241 with an average of 36.9 citations per article.

Analysis of collaborative networks reveals strong research ties between the United Kingdom and Australia (289 co-authored publications), the United States and China (288), and the United States and the United Kingdom (244). Other prominent collaborations include China-Austria (212), China-United Kingdom (206), the United States-Australia (162), the United States-Canada (142), and the United Kingdom-Netherlands (137), which illustrate the interconnected nature of HRM research across different countries.

Identifying the publishers with the most research on HRM reveals which publishers are interested in HRM. It also provides an important source for future researchers to publish their HRM research.

4.3 Most Used Publication Sources

Table 1. Top 10 Journals Ranked by Number of HRM Publications

Sources	Articles	Department of Science	WoS Ranking/ JCR	Journal Impact Factor (2023)
International Journal of Human Resource Management	1361	Management	Q1	4.9
Personnel Review	513	Industrial Relations & Labor	Q1	3.3
Human Resource Management	492	Management	Q1	6
Sustainability	403	Environmental Science	Q2	3.3
International Journal of Manpower	276	Industrial Relations & Labor	Q1	4.6
Human Resource Management Review	271	Management	Q1	8.2
Human Resource Management Journal	244	Industrial Relations & Labor	Q1	5.4
Employee Relations	237	Industrial Relations & Labor	Q2	2.7
BMJ Open	188	Medicine, General & Internal	Q1	2.4
Asia Pacific Journal of Human Resources	184	Industrial Relations & Labor	Q1	3.9

The journals in which HRM-related topics are most frequently published are listed in Table 1. HRM-related research is mostly conducted in the fields of "Management" and "Industrial Relations and Labor". Although there is no restriction in the scope of the subject, it shows that HRM is intensively involved in the field of management and labor relations as well as the multidisciplinary structure in general. An examination of the Web of Science journal rankings for HRM publications reveals a predominance of Q1 journals, with the top ten journals boasting impact factors ranging from 2.7 to 8.2. Among the journals publishing HRM research, the International Journal of Human Resource Management stands out as the most popular publication outlet for HRM research, making it an essential resource for scholars in the field. A historical overview of journal publications shows that the journal Human Resource Management initially led the field, publishing 4 articles in 1985 and 15 in 1986. The Personnel Review entered the scene in 1986 and gained significant momentum after the 1990s. The International Journal of Human Resource Management, despite commencing HRM publications in 2000 (with 29 articles), surpassed its competitors by 2004 and has demonstrated a rapid increase in HRM publications through 2024. This analysis highlights the growing prominence of these journals as key platforms for HRM research. Scholars interested in the field are

encouraged to prioritize these journals, particularly the *International Journal of Human Resource Management*, owing to its current leadership position.

Identifying the authors who have conducted the most research in HRM reveals which author's source should be taken into account by new researchers in the formation of literature. The dominant authors in the field are listed below.

4.4 Author Insights

Table 2. Top 10 Most Prolific Authors in HRM Research Ranked by Number of Publications

Authors	Articles	Articles Fractionalized
Brewster C.	94	38.54
Cooke Fl.	86	36.66
Zhang Y.	70	21.57
Wood G.	69	19.79
Bartram T.	63	16.45
Warner M.	61	42.25
Rowley C.	57	29.28
Wang J.	56	16.21
Wang X.	56	24.41
Liu Y.	55	16.37

Table 2 identifies the most prolific authors in HRM research. Aspiring HRM researchers should consider the work of scholars like Brewster C. and Cooke Fl. as valuable resources. Besides, the "Articles Fractionalized" metric provides a standardized measure of each author's contribution to the field by equally weighting their research output (Comert, 2022), which affords a fair assessment of individual contributions to HRM scholarship. Warnet M. stands out as the top researcher with the highest number of author contributions with 61 studies on HRM. On a historical basis, Brewster C. was the first author on HRM and conducted six studies in total until 1995. During this period, the research on the tendency towards the HRM model in Europe (Brewster, 1995) was among the most cited studies. Rowley C. started his research career in 1996 and was followed by Warner M. in 1996. They are the first authors to include basic resources for HRM. It is observed that Cooke FL. and Wang J. are productive in current (2023-2024) research on HRM. In general, when evaluated on the basis of citations, the most cited authors for HRM are D. P. Lepak (9092), M. A. Huselid (8389), P. M. Wright (8234) et al. The mentioned authors are among the most popular names cited in the field and they are considered to be the authors that should be evaluated for establishing the HRM foundation for upcoming investigations. Analysis of author collaboration intensity reveals that Cooke FL., Wood G., Sanders K., Wang J., Farndale E., and their colleagues demonstrate the highest levels of collaborative engagement within HRM research. This underscores their influential roles

and extensive collaborative networks within the field, implying that their work shapes and advances HRM scholarship.

The three-field plot analysis illustrates an important aspect of the holistic view of HRM. It provides insights into which research areas for HRM the dominant authors in the field specialize in and which key areas they have chosen.

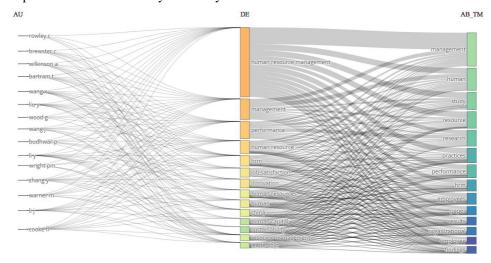


Figure 4. Three-Field Plot Analysis Visualizing Interconnections

Figure 4 illustrates the interconnectedness between influential authors in HRM research (left column), frequently attributed keywords (middle column), and the most frequently occurring terms in abstracts (right column). This correspondence suggests a strong alignment between prominent scholars, key themes, and the core focus of HRM research. Researchers seeking to ground their studies in established knowledge should prioritize the work of these influential authors, who serve as authoritative voices in the field. Similarly, those focusing on a specific author's work can gain valuable insights by exploring the associated keywords and abstract terms, which illuminate the central themes and concerns addressed by that author.

The analysis reveals that most authors focus on a common set of keywords, including sustainability, human capital, innovation, and job satisfaction. However, certain authors demonstrate a broader range of research interests, as evidenced by their diverse keyword profiles. Li Y. (12 keywords), Wang X. (11), Cooke FL. (11), Liu Y. (10), Zang Y. (10), and Li J. (10) stand out for their wide-ranging contributions to HRM scholarship. Their diverse keyword portfolios offer valuable guidance for future researchers seeking to explore various facets of HRM.

Document analysis plays a crucial role in bibliometric research by identifying foundational works that shape the field. This study's analysis provides a curated list of

essential resources, offering valuable support for literature reviews and facilitating a deeper understanding of HRM research.

4.5 Document Analysis

Table 3. Top 10 Most Cited Documents in HRM Research Ranked by Total Citations

Paper	DOI	Total Citations	TC per Year
Huselid MA, 1995, Acad Manage J	10.5465/256741	4350	145,00
Connelly BL, 2011, J Manag	10.1177/0149206310388419	2852	203,71
Delery JE, 1996, Acad Manage J	10.5465/256713	2112	72,83
Bowen DE, 2004, Acad Manage Rev	10.2307/20159029	1910	90,95
Becker B, 1996, Acad Manage J	10.5465/256712	1547	53,34
Delaney JT, 1996, Acad Manage J	10.5465/256718	1528	52,69
Shah R, 2003, J Oper Manag	10.1016/S0272-6963(02)00108-0	1510	68,64
Ichniowski C, 1997, Am Econ Rev	10.3386/w5333	1377	49,18
Berman SL, 1999, Acad Manage J	10.5465/256972	1358	52,23
Jiang K, 2012, Acad Manage J	10.5465/amj.2011.0088	1323	101,77

Table 3 presents the most cited publications in HRM research, with Huselid (1995) leading in total citations and Connelly (2011) receiving the highest average annual citations. These influential works, along with other highly cited studies such as Delery (1996) and Bowen (2004), represent foundational contributions to the field and should be considered essential reading for HRM researchers. The table reveals that some of the most impactful HRM research originates from scholars in diverse fields, highlighting the interdisciplinary nature of HRM scholarship.

Keyword cluster analysis provides valuable insights into the core themes and research areas within HRM. The analysis demonstrates a clear relationship between keyword frequency and prominence within the field, with larger word sizes indicating greater research emphasis. This visualization effectively maps the intellectual landscape of HRM research, revealing areas of concentrated scholarly activity.



Figure 5. Visualization of Keyword Clusters in HRM Research

Analysis of keyword frequencies in Figure 5 reveals the prominent themes within HRM research. As expected, keywords directly related to human resource management and its variations dominate the landscape, with "human resource management" appearing 4,092 times, followed by "management" (1,203), "performance" (755), "human resource" (748), "HRM" (566), "innovation" (478), and "job satisfaction" (455). Beyond these core HRM terms, the analysis highlights a strong emphasis on related disciplines such as social sciences, management and organization, labor relations, labor economics, and strategic management. This underscores the interdisciplinary nature of HRM research and its connections to broader organizational and societal contexts. Historically, keywords such as human resources management and management have been used since the inception, while words such as innovation, job satisfaction and performance began to be used in the 2000s. Analysis of trending keywords reveals the evolving focus of HRM research over time. "Business process reengineering" (5) emerged as a prominent keyword between 2001 and 2009, reflecting the growing interest in organizational efficiency and process optimization. Similarly, "advanced manufacturing technology" (8) gained traction between 2001 and 2014, highlighting the increasing importance of technology in the workplace. The analysis also identifies key research areas within HRM, with trending keywords frequently falling under disciplines such as labor relations, management, and organization. Furthermore, the analysis reveals emerging trends within HRM research, with "prisma" (7) and "extreme work" (7) garnering significant attention in recent years, so such keywords represent areas of increasing scholarly attention within the field of HRM.

4.6 Thematic Map Analysis

Keywords were clustered based on their intensity and centrality, revealing four distinct thematic categories within HRM research (Aria et al., 2022). These categories are visually represented on a thematic map, with each quadrant signifying a different stage of thematic development:

- Basic Themes (bottom right): These represent established and fundamental concepts that form the bedrock of HRM research. They are essential for understanding the field's foundations.
- Emerging or Declining Themes (bottom left): This quadrant captures dynamic themes that are either gaining prominence or losing relevance within HRM research. It reflects the evolving nature of the field and shifting research priorities.
- Motor Themes (top right): These are currently popular and driving themes within HRM research, representing areas of high activity and interest. They often reflect contemporary challenges and opportunities facing organizations.
- Niche Themes (top left): This quadrant highlights under-researched areas within HRM, representing potential avenues for future exploration and knowledge generation.

The thematic map in Figure 6 provides a valuable overview of the HRM research landscape, guiding researchers towards established knowledge, emerging trends, and promising areas for future investigation.

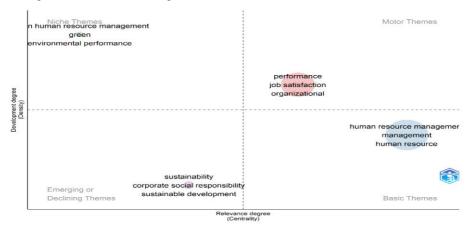


Figure 6. Thematic Map Showing the Evolution of Key Themes in HRM Research

Based on the thematic analysis of the keywords in Figure 6, the main themes that are anchors for HRM in general are human resource management (4084), management (1182), human resources (747), HRM (565), innovation (472). The emerging themes in HRM or themes with a decreasing research tendency are sustainability (299), corporate social responsibility (232), sustainable development (112). The current prominent motor themes for HRM research are performance (752), job satisfaction (455), organizational (289), organizational performance (272), strategic human resource management (268), HRM practices (227), employee (206). Finally, the niche themes that allow us to identify prominent gaps in HRM research are green human resource management (250), green (112), environmental performance (108). Identifying gaps specific to the field can thus be a research recommendation for researchers willing to work in the field of HRM.

In order to evaluate the dynamic structure of HRM research, an in-depth thematic analysis was carried out in the historical dimension by associating the themes commonly used in the HRM literature between 1980-2016 with the themes commonly used in 2017-2024 with the thematic evolution analysis within the thematic analysis. Figure 7 illustrates the evolution of key themes within HRM research between 1980 and 2024. From 1980 to 2016, the field was dominated by research on management, human resource management, and job satisfaction. However, a momentous shift occurred between 2017 and 2024. The majority of research on management and human resource management converged towards a more focused emphasis on human resource management itself. A portion of research on management branched out into the burgeoning field of sustainability, highlighting its growing importance within HRM. On top of that, research on job satisfaction fully transitioned towards a broader focus on performance, indicating a shift towards outcomeoriented perspectives in HRM. This dynamic evolution of research themes demonstrates

the adaptability of HRM scholarship to contemporary organizational challenges and priorities.

The evolutionary analysis of thematic maps is a depiction of the progress made from the 1980s to the present day using two different time periods. As changes in the field of HRM are inevitable, evolutionary analysis has revealed its reflection in academic research.

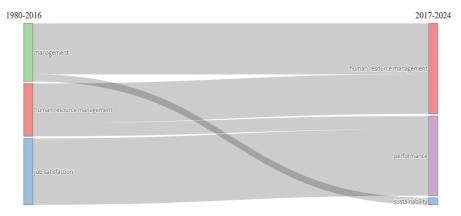


Figure 7. Evolution of Key Themes in HRM Research

4.7 Factor Analysis

The degree of proximity between keywords reveals an interrelated situation. The factor analysis conducted on the basis of keywords represents the average position of all column documents in the map and forms the research center (cluster) (Cuccurullo et al., 2016). Each color that emerges in the factor analysis constitutes clusters representing a topic. It allows for the emergence of a minimum number of factors representing the relationship between keywords.

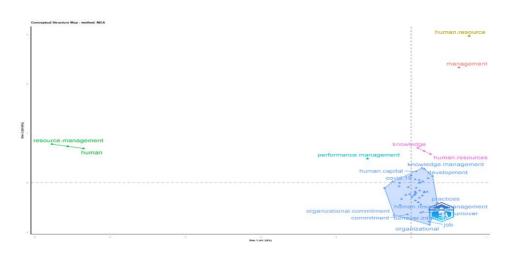


Figure 8. Factor Analysis of Keywords in HRM Research

Figure 8 reveals six distinct clusters derived from factorial analysis of keywords in HRM research. The first cluster groups "resource management" and "people." The second cluster focuses on "performance management." The third cluster encompasses "knowledge" and "human resources." The fourth cluster, most centrally located and notably comprehensive, includes keywords such as "human capital," "knowledge management," "human resources," "COVID-19," "work," "commitment," and others. The fifth cluster primarily concerns "management," while the sixth cluster is composed solely of "human resources." The fourth cluster's central position and broad inclusion of topics signifies its importance within HRM studies.

5 DISCUSSION

The study's core findings reveal a dynamic evolution of the HRM literature. Between 1980 and 2024, the field experienced a 16.7% growth rate, demonstrating a multifaceted and globally collaborative structure. This growth is reflected in a substantial number of authors and a significant quarter of international collaborations. Annual document production, exhibiting a steady increase until 2004, accelerated sharply thereafter, indicating an increasing research momentum. While citation counts demonstrate some fluctuation, a cumulative increase underscores the growing academic focus on HRM, particularly since the 2000s. This trend aligns with predictions in Boxall and Purcell's 2003 study, which anticipated HRM's continued growth in the period and which research results corroborate. Analyzing author origins, the United States, China, the United Kingdom, Australia, and India emerge as dominant contributors to the HRM literature. These nations also maintain strong positions in terms of citation volume. James and Baruti (2021) highlight the extensive experience in HRM demonstrated by the USA, China, the UK, and Scandinavian countries. Cooke et al.'s (2020) research on Asian contexts further indicates China and India's successful HRM implementation. This suggests a strong

relationship between national contexts and the interest of researchers from those countries, influencing their publication choices. Authors frequently publish in prominent journals such as International Journal of Human Resource Management, Personnel Review, Human Resource Management, Sustainability, International Journal of Manpower, Human Resource Management Review, Human Resource Management Journal, Employee Relations, and others. These publications are likely valuable resources for future HRM researchers, considering their established place in the field. Furthermore, contributions from researchers such as Brewster C., Cooke Fl., Zhang Y., Wood G., Bartram T. et al. have also saturated the quality and quantity of HRM literature.

The three-field plot analysis identified key authors associated with various thematic areas (e.g., HRM, management, performance, HR, job satisfaction, innovation) to aid future research. Document analysis revealed frequently cited studies within the HRM literature. Huselid's work, linking working practices, high performance, and firm performance to human resource management, is highly influential and frequently referenced by HRM researchers. Connelly et al.'s (2011) review of strategic management's application to HRM, focusing on signal theory, stands out as a highly cited study, with a high average number of citations per year. More recent studies like Singh et al.'s (2020) research on green HRM and Ringle et al.'s (2020) work on structural equation modeling in HRM are also gaining rapid citation rates and are consistently cited at a high level.

Keyword analysis reveals a consistent and evolving vocabulary within HRM research. Terms like "human resource management," "management," "performance," "human resource," "HRM," "innovation," and "job satisfaction" are prominent and show historical variability in usage. This finding aligns with Chae et al.'s (2020) South Korean study, which also identified frequent use of similar keywords. Thematic analysis confirms the enduring relevance of "human resources management," "management," and "human resources" as core themes. However, "performance," "job satisfaction," and "organization" currently hold significant research interest. On the other hand, "sustainability," "corporate social responsibility," and "sustainable development" demonstrate a decreasing or emerging trend. Further research is warranted in niche areas like "green human resource management," "green," and "environmental performance" within HRM, as Ren et al. (2018) and Shah et al. (2024) emphasize the underdeveloped theoretical foundations of concepts like environmental sustainability and green HRM. These findings underscore the need for future studies in these areas.

Thematic evolution findings suggest a consequential shift in research focus within HRM. While the period from 1980 to 2016 emphasized themes of management, human resource management, and job satisfaction, the years 2017 to 2024 witnessed a transition towards human resource management, performance, and sustainability. This aligns with Davidescu et al. (2020), who advocate for a re-evaluation of HRM literature to incorporate contemporary concepts like sustainability, job satisfaction, and performance. The findings of the factor analysis reveal that there are six different theme associations forming a cluster for HRM studies and they are included in a wide variety of cluster-theoretical contexts.

In conclusion, this study provides a current and comprehensive overview of HRM research, offering valuable insights into the field's overarching trends and fundamental conclusions. By synthesizing bibliographic findings and empirical contributions within a contemporary framework, this research significantly advances the field and provides a strong foundation for future HRM studies.

5.1 Contributions and Implications

The research is motivated to draw meaningful academic conclusions for future scholarly work in HRM. It contributes to the existing body of knowledge in the academic literature for HRM research in a comprehensive and up-to-date manner with key results, most prolific authors, prolific countries of origin, most relevant journals and research documents, as well as citation productivity, keyword trends and evolution, thematic interpretation, factor (cluster) findings. In addition, the study identifies foundational authors and documents, facilitating future research across all HRM domains. Keyword analysis reveals the evolution of research focus, while thematic analysis identifies core, emerging, declining, and niche topics in HRM studies. Finally, factor analysis contributes to a nuanced understanding of HRM by revealing distinct clusters within the field. This integrated approach offers a substantial contribution to the development of a robust academic framework for HRM research.

5.2 Limitations and Future Research

This research, while valuable, has potential limitations. Primarily, the dataset is limited to documents within the Web of Science (WoS) database. While WoS is a reputable source, expanding the scope to include databases such as Scopus and Google Scholar would enhance the comprehensiveness of future research. Furthermore, a time-sensitive approach, focusing on specific historical periods, could yield deeper insights into the evolution of HRM literature. This longitudinal perspective would offer a more nuanced understanding to future researchers. Finally, while the findings from author, keyword, and document analyses offer valuable context for future research in framing the HRM literature, further investigation into publishing patterns—identifying dominant journals and their influence on publication preferences—could provide a more complete picture for researchers.

6 CONCLUSIONS

Bibliometric research aims to obtain a holistic perspective on human resource management (HRM) in the scientific context in the light of the information obtained from Web of Science (WoS), one of the most important databases for scientific research. As a result of the increasing interest in HRM after the 1980s and the highest levels of research tendency after the 2000s, the necessity of research has become inevitable. A holistic and up-to-date analysis of the HRM literature, where cumulative research piles are formed, has been necessary. For this purpose, bibliometric research was conducted by including all HRM research from the past to the present (between 1980-2024) in the WoS database. A wide range of findings were obtained using the R bibliometrix-biblioshiny package.

The trend of research on HRM in scientific studies shows an annual increase of 16.7%, which confirms that there is a continuous demand for research on the subject. It was determined that there were 20,881 academic studies on HRM in total and the number of authors was 35,070, which is a significant number. International co-authorship was carried out in one out of every four studies, resulting in an average of 9.14 studies and 22.81 citations. In the annual production and citation results, it was determined that the number of studies on HRM, which started with a single study in 1980, has continuously increased, and the number of citations, although fluctuating, tends to increase continuously. When the productivity of the countries of origin is analyzed, it is determined that the majority of the authors are citizens of countries such as the USA, China and the United Kingdom. It is determined that the most used journal sources within the scope of HRM are management, industrial relations and labor, labor economics. It is determined that the researchers who conducted the most research in the field are the main authors such as Brewster C., Cooke Fl., Zhang Y. and Wood G. and they have an important voice in the HRM literature. The studies of these researchers will be valuable for future authors who will produce content within the scope of HRM. Similarly, the authors of the documents that future authors can refer to in the formation of literature are mainly Huselid MA., Connely BL., Delery JE.

In terms of keywords that have an important place in the formation of the themes of HRM research, it has been determined that themes such as HRM, management, performance, human resources, innovation, job satisfaction are predominant, so the scope of the subject is concentrated with these researches. According to thematic findings, which is an important advantage of bibliometric research, it was determined that environmental research such as green human resource management, environmentalism, etc., which are niche/gap research areas for HRM, constitute an important research opportunity. In the thematic historical transformation, it has been determined that some of the management field has shifted to sustainability after 2017, and all the job satisfaction has been transformed into performance. Finally, the research provides an opportunity to make a holistic and up-to-date interpretation within the scope of the subject based on all scientific studies in the selected database within the scope of HRM.

AUTHORS' CONTRIBUTIONS

The research is single authored, with the author independently conducting the entire process.

FUNDING

This study did not receive external funding.

DATA AVAILABILITY STATEMENT

The data presented in this bibliometric study were obtained openly from the Web of Science database.

CONFLICTS OF INTEREST

There author declares no conflicts of interest.

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