

Exploring the Digital Transformation of HR: Insights from a Bibliometric Analysis

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Disclosure Statement :	The authors declare that they have not received any financial support that could have influenced the objectivity of this study. They take full responsibility for any potential plagiarism, the use of artificial intelligence in the writing process, as well as for the results presented in this article.
Conflict of Interest :	The authors report no conflicts of interest.
Cite this article :	LYAMANI, A., & ATIK, M. (2025) Exploring the Digital Transformation of HR: Insights from a Bibliometric Analysis. <i>International Journal of Accounting, Finance, Auditing, Management and Economics</i> , 6(10), 82–96.
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Received: 06/08/2025

Accepted: 14/09 /2025

International Journal of Accounting, Finance, Auditing, Management and Economics - IJAFAME

ISSN: 2658-8455

Volume 6, Issue 10 (2025)

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Abstract:

This study conducts a comprehensive bibliometric investigation into the scholarly literature on Human Resource (HR) digitalization, with the aim of outlining the most recent advances in the domain. Drawing on a dataset of 774 articles published between 2010 and 2024, it applies bibliometric techniques particularly through the VOSviewer software to trace research trajectories and pinpoint core thematic areas. The analysis enhances the overall understanding of how digital transformation is shaping HR management, while also shedding light on the challenges and opportunities it introduces for organizations. Findings indicate a consistent rise in academic output, particularly around themes such as artificial intelligence, big data, and digital HR platforms. The study further uncovers collaborative patterns among leading authors and institutions and identifies promising directions for future inquiry in this fast-developing research field. In addition to its descriptive contribution, the article advances theory by distinguishing the main conceptual streams that underpin HR digitalization research, exposing insufficiently explored topics, and suggesting an analytical framework to examine how digitalization influences HR practices and organizational performance. Collectively, these insights not only strengthen comprehension of the impact of digital transformation on HR but also provide valuable theoretical orientations to support future academic endeavors and practical decision-making.

Keywords: HR digitalization, Human Resources Management, Digital transformation, Bibliometric analysis, Research trends.

Classification JEL : M12, M15, O33.

Paper type: Theoretical Research.

1. Introduction

The digital transformation of Human Resources (HR) has become a key driver of change in contemporary organizational management. It refers to the integration of advanced technologies such as artificial intelligence (AI), big data analytics, digital platforms, and automation into HR processes, fostering more flexible, evidence-based, and tailored approaches to workforce management (Bondarouk & Brewster, 2016; Meijerink et al., 2021). Although this transition enhances the efficiency and strategic role of HR functions, it simultaneously raises challenges related to organizational change, adaptation processes, data protection, and the acceptance of new technologies (Marler & Parry, 2016; Strohmeier, 2022).

In recent years, scholars have investigated the phenomenon of HR digitalization from diverse perspectives. Some contributions underline its potential to strengthen employee engagement, develop workforce analytics, and support data-driven decision-making (Strohmeier, 2020; Bondarouk et al., 2017). Others stress the drawbacks, pointing to risks of over-reliance on technology, disparities in digital competencies, and ethical concerns surrounding algorithmic management (Kaše et al., 2019; Duggan et al., 2020). Despite this growing body of work, the field remains highly dispersed, with studies published across different journals, geographical contexts, and disciplinary traditions.

As a result, providing a holistic synthesis of how HR digitalization research has developed, identifying the dominant themes, and detecting persisting gaps continues to be a challenge for scholars. Previous reviews have tended to be narrative or thematic, offering useful but partial perspectives (Parry & Battista, 2019). What is still lacking is a structured bibliometric analysis capable of mapping the intellectual landscape of HR digitalisation, identifying influential authors and institutions, and highlighting under-explored research avenues.

In a context where digital technologies are continuously reshaping HR practices, several key questions arise. How has academic research kept pace with these transformations, for example? Which topics, authors, countries and institutions have shaped the field? What are the most and least discussed challenges, and which areas are the least explored?

To answer these questions, this article takes a bibliometric approach to systematically map the scientific literature on HR digitalisation. By examining a corpus of 774 articles published in the Scopus database between 2010 and 2024, and analysing citation networks, co-authorship structures and keyword co-occurrences using VOSviewer, we provide an overview of the intellectual structure and dynamics of the field.

This study has two main objectives. Firstly, it aims to provide a descriptive overview of research trends, including publication growth, leading journals, prolific authors and collaborative networks. Secondly, and more importantly, it makes a theoretical contribution by clarifying the conceptual streams that structure HR digitalisation research, exposing under-explored areas and proposing a framework to guide future investigations.

The article is organised around several research questions that guide the analysis and discussion.

- Q1. *How have publications on HR digitalization been distributed over the past decade?*
- Q2. *Which journals and authors are the most prominent in HR digitalization research?*
- Q3. *Which countries have been the most productive in this area of research?*
- Q4. *What are the main research keywords and themes that define the field today?*

By answering these questions, the paper not only improves the academic understanding of HR digitalisation, but also provides organisations seeking to adapt to ongoing technological change with actionable insights. The bibliometric analysis helps to map the research landscape, reveal dominant topics and offer theoretical and managerial implications for the future of HR in the digital era.

2. Theoretical Background

In this section, we present the key concepts related to the digitalization of Human Resources (HR), focusing on its definition, historical evolution, and the integration of advanced technologies into HRM functions. We investigate the academic roots of digital HR, analyze the key drivers for its emergence and scrutinize its strategic implications for HR work. In addition, we assess how HR digitalization shapes human capital management, highlighting its potential benefits as well as its inherent challenges.

2.1. Digitalization and Human Resources Management

Digital Human Resource Management (HRM) refers to the application of digital technologies such as cloud computing, artificial intelligence (AI), big data analytics, and mobile solutions to support and transform HR practices (Bondarouk & Brewster, 2016). This transition reflects a broader trend toward organizational digital maturity, where HR increasingly plays a pivotal role in fostering innovation and agility (Strohmeier & Kabst, 2018).

The origins of Digital HR can be traced back to technological advancements over the past two decades. Early generations of e-HRM systems were primarily developed to automate administrative functions (Lengnick-Hall & Moritz, 2003). However, more recent iterations have extended their scope to strategic domains, including talent analytics, digital learning, and employee experience management (Parry & Strohmeier, 2014). These advancements have reshaped organizational approaches to acquiring, developing, and retaining talent, allowing for more scalable, personalized, and data-driven HR processes.

Moreover, the digitalization of HR must be understood within the broader context of the Fourth Industrial Revolution, characterized by the convergence of cyber-physical systems, automation, and data-driven intelligence (Schwab, 2017). In this environment, HR is expected to assume a dual function: spearheading digital transformation while simultaneously safeguarding ethical principles, particularly regarding algorithmic bias, data privacy, and the risks of a digital divide (Marler & Boudreau, 2017).

2.2. Strategic and Organizational Implications of Digital HR

In contemporary organizations, digital HR tools play a dual role: on one hand, they improve operational efficiency by automating repetitive tasks and optimizing workflows; on the other, they support strategic functions by enhancing decision-making and fostering greater employee involvement. This dual contribution illustrates the growing importance of digitalization in shaping both the performance of HR systems and the overall employee experience. For example, predictive analytics can anticipate talent requirements, and AI chatbots can simplify employee queries and the onboarding process (Bersin, 2019). However, implementing these tools can present challenges relating to costs, change management and developing the digital skills of HR professionals.

Existing research highlights that the effective adoption of digital technologies in HRM depends largely on organizational preparedness, strong leadership commitment, and the presence of an innovation-oriented culture (Stone et al., 2015). Yet, digital transformation within HR cannot be reduced to a purely technological shift; it also requires a reconfiguration of HR roles, the development of new competencies, and a redefinition of the function's strategic contribution to the organization (Ulrich, 2016).

Scholarly work increasingly calls for a holistic perspective on digital HR, in which technological tools are integrated with human capabilities and organizational processes to secure sustainable competitive advantage. Despite these insights, significant gaps remain regarding how digital HR is experienced across different contexts for example, public versus private organizations, or small and medium-sized enterprises compared to large corporations and how it influences employee experience and workforce dynamics over time.

Against this backdrop, it becomes essential to map the state of knowledge on HR digitalization. The bibliometric approach adopted in this study provides such a structured overview by tracing the field's evolution, identifying dominant themes, and pointing to avenues that merit further scholarly exploration.

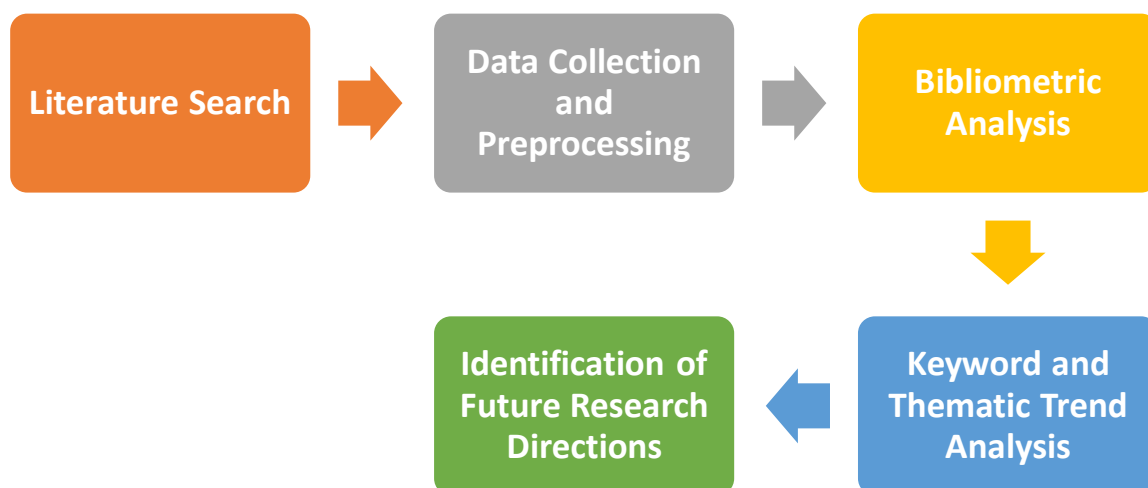
3. Research Methodology

The primary objective of this study is to perform a comprehensive bibliometric investigation of the scientific literature on Human Resource (HR) digitalization, with the goal of identifying prevailing research trends, emerging focal areas, and existing gaps within the field. Bibliometric analysis offers a robust quantitative approach for processing large datasets and visually mapping relationships among publications, authors, and key concepts. Its systematic and objective nature has made it a widely adopted tool in literature reviews seeking to provide a structured overview of a research domain (Donthu et al., 2021).

In this study, we employed advanced bibliometric tools, particularly VOSviewer, to examine relevant publications on HR digitalization, exploring citation and co-citation patterns, dominant keywords, and thematic research trends. The research followed a multi-step, structured methodology encompassing literature search, data collection and preprocessing, bibliometric evaluation, and keyword as well as thematic cluster analysis. Each stage was designed to generate a precise and detailed representation of the evolution of HR digitalization research, while ensuring methodological rigor and data quality. Through this systematic process, we were able to derive insights that directly addressed our research questions, maintaining transparency and reproducibility throughout the analysis.

The figure below illustrates the main stages of the methodology adopted in this study.

Figure 1 : Methodology adopted for the research



Source : Author's elaboration

3.1. Literature Search

The initial phase of this study involved a thorough literature search within the Scopus database, chosen for its extensive coverage of peer-reviewed publications across multiple disciplines and its recognition as one of the most comprehensive bibliographic resources available. Scopus is widely acknowledged in the academic community for providing access to high-quality journal articles as well as international conference proceedings.

To identify relevant studies on HR digitalization, we conducted an advanced search using a set of targeted keywords, including “digitalisation in HR,” “human resource technology,” “artificial intelligence in HR,” and “big data in HR,” as illustrated later (see Figure 2). These keywords were applied to publication titles, abstracts, and author-assigned keywords to capture the most pertinent literature.

This systematic strategy allowed the compilation of a dataset of articles spanning the period from 2010 to 2024, with a particular emphasis on recent publications in order to capture current research trends and the rapidly evolving nature of HR digitalization.

3.2. Data Collection and Preprocessing

In the second phase of the study, a comprehensive dataset was extracted from the previously identified publications. The information collected encompassed article titles, authors, institutional affiliations, countries of origin, publication years, and the keywords assigned by the researchers. Subsequently, the dataset underwent a rigorous cleaning and organization process to eliminate duplicates and ensure that only relevant records were retained.

This preprocessing step was essential to establish a uniform and reliable dataset suitable for subsequent bibliometric analyses. Ensuring consistency and representativeness at this stage was critical for maintaining the overall rigor and validity of the study’s findings.

3.3. Bibliometric Analysis

The subsequent stage involved performing a bibliometric analysis using VOSviewer, a specialized software designed for mapping and examining research networks. VOSviewer is particularly well-suited for visualizing connections among publications, authors, and terms, allowing for a clear representation of citation and co-citation networks as well as co-occurring keywords.

This tool was employed to analyze the selected dataset, with the aim of identifying research trends, influential publications, and author collaboration networks. The bibliometric evaluation provided insights into the evolution of HR digitalization research by highlighting the most prominent authors and the most frequently cited studies. Additionally, it revealed the interconnections between articles, offering a deeper understanding of collaborative patterns among researchers in the field.

The outcomes of this analysis facilitated the identification of dominant research themes, key theoretical contributions, and gaps within the existing literature, thereby informing directions for future investigation.

3.4. Keyword and Thematic trend Analysis

An essential phase of this study involved the analysis of keywords extracted from the selected publications. Using VOSviewer, we examined the frequency and distribution of terms within the research corpus to identify recurring concepts and gain insight into the primary areas of focus in HR digitalization research. Visualizing the keyword distribution enabled the mapping of key themes that have developed over time.

In addition, a clustering analysis was conducted to group related keywords based on their co-occurrence across articles. This method facilitated the identification of thematic clusters and the visualization of relationships among various concepts and practices. For instance, clusters could form around terms such as “artificial intelligence,” “talent management,” or “big data,” highlighting the topics most extensively studied by researchers and illustrating the intersections between these areas.

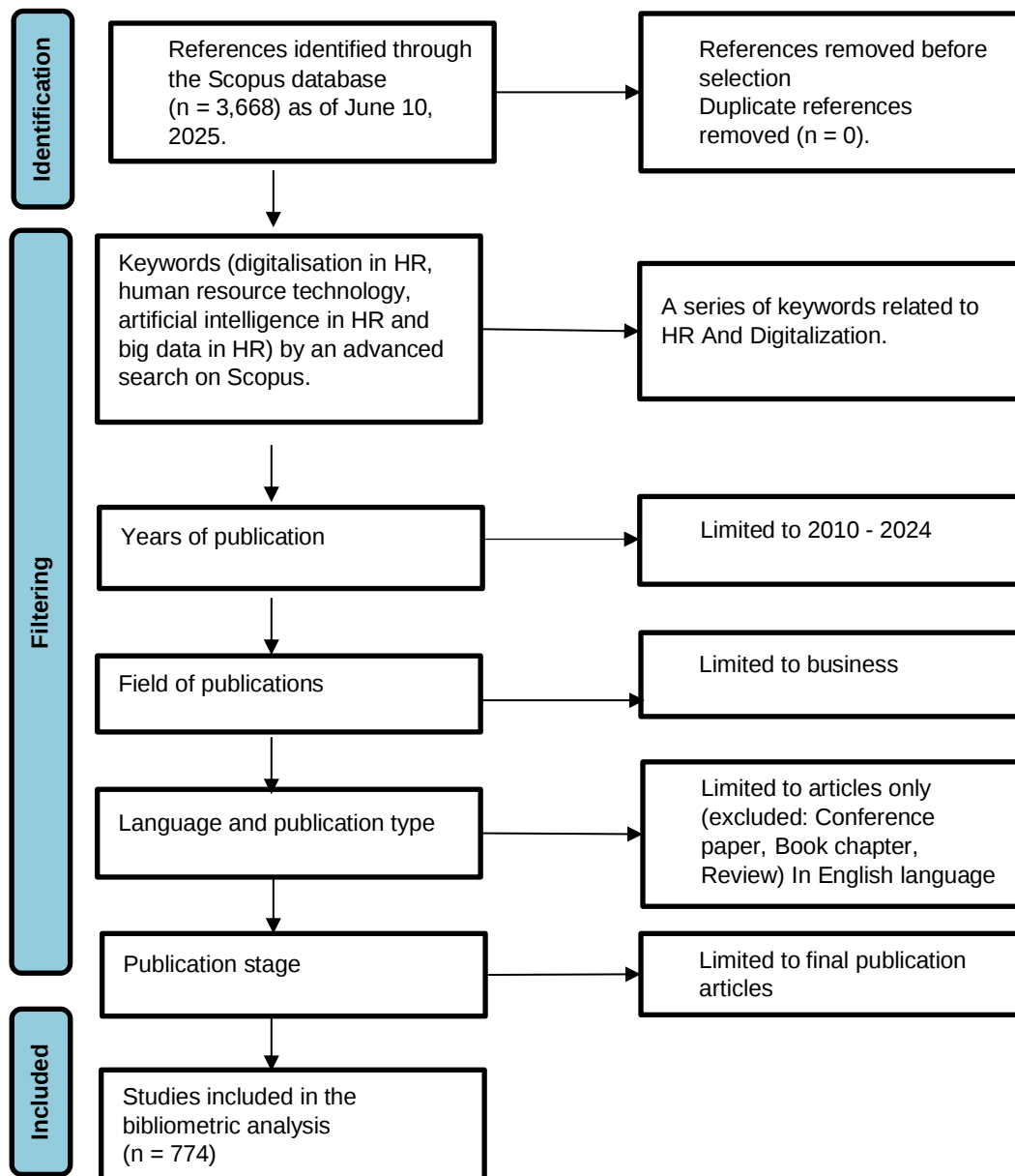
3.5. Identification of Future Research Directions

Finally, the cluster analysis facilitated the identification of potential directions for future research by examining thematic developments within the field. By grouping keywords and

analyzing recent publications, we were able to highlight emerging research priorities and propose avenues for further investigation based on gaps identified in the existing literature. Overall, this bibliometric approach provides a rigorous and detailed framework for examining the literature on HR digitalization. Through the use of tools such as VOSviewer, we were able to map the evolution of the field, uncover prominent themes and authors, and offer informed recommendations for future research endeavors.

This methodological process ensures the objectivity and transparency of the study, guaranteeing an exhaustive analysis of the subject.

Figure 2 : Analytic framework of the study



Source: Author's elaboration based on the PRISMA methodology (Moher, 2009)

4. Results

This section presents the results of the bibliometric analysis combined with several network visualizations. The first section discusses bibliometric statistics, followed by a listing of the

keywords used. Next, various bibliometric analyses are presented (by country, scientific journal, author, and publication).

4.1. Research question 1

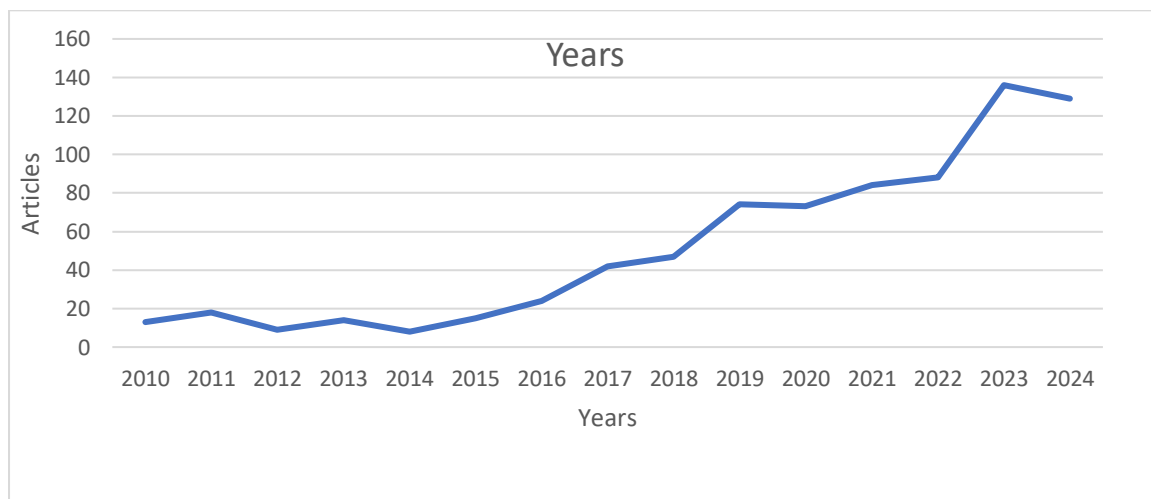
How have publications on HR digitalization been distributed over the past decade ? To address the first finding, an analysis was conducted of the publication years of the articles through the previous decade.

The number of documents per year is the first observation (see Figure 3). The number of documents between 2010 and 2016 ranges from thirteen (13) to twenty-four (24). However, this figure increases rather quickly, reflecting the emergence of the field of digitalization in scientific literature.

From 2016 onward, the trend shows a rapid increase in the number of documents each year until 2022, with a rise from 88 documents to 136 documents in 2023 due to the acceleration of digital transformation following the Covid-19 pandemic.

Growth appears to slow down in 2024, reaching 129 documents by November. However, this is because our 2024 sample is incomplete, as the tests were conducted in November 2024. Publications for the remainder of 2024 are therefore absent. A follow-up search will be conducted on SCOPUS in March 2024 using the same selection criteria to confirm the increasing trend in the number of documents per year.

Figure 3: Distribution of publications by years (2010-2024)



Source: Derived from the Scopus database.

4.2. Research question 2

Which journals and authors are the most prominent in HR digitalization research? In the content analysis made for the most cited journals, “Total Publication,” “Total Citation,” “Cite Score of the journal,” “The most cited article,” “Times cited,” and “Publisher” was chosen as the analysis criteria as presented in Table 1.

This shows that the most productive journal concerning digitalization and human resource management is "Technological Forecasting and Social Change", with a total of 2602 publications and 55,382 citations, making it the most influential journal in this field. It is followed by the "International Journal of Human Resource Management", which has 562 publications and 6,592 citations, and the "International Journal of Manpower", with 325 publications and 2,738 citations. Additionally, "Human Resource Management Journal" stands out with 197 publications and 2,345 citations, reflecting its strong academic impact.

Moreover, "New Technology, Work and Employment" (91 publications, 953 citations) and "Journal of Organizational Effectiveness" (108 publications, 561 citations) contribute

significantly to research on work transformation and organizational efficiency. However, some journals, such as "Human Resource Management International Digest" (298 publications, 15 citations), have a low citation count despite a relatively high number of publications, indicating a limited scientific impact.

Table 1: The top 10 highly productive journals on HR digitalization in the years (2010–2024)

Source	TP	TC	Cite Score	SJR	SNIP	Editor
<u>New Technology Work And Employment</u>	<u>91</u>	<u>953</u>	<u>10.5</u>	<u>2.009</u>	<u>2.330</u>	<u>John Wiley & Sons</u>
<u>Technological Forecasting and Social Change</u>	<u>2602</u>	<u>55382</u>	<u>21.3</u>	<u>3.118</u>	<u>2.945</u>	<u>Elsevier</u>
<u>International Labour Review</u>	<u>115</u>	<u>490</u>	<u>4.3</u>	<u>0.724</u>	<u>0.966</u>	<u>John Wiley & Sons</u>
<u>Journal Of Organizational Effectiveness</u>	<u>108</u>	<u>561</u>	<u>5.2</u>	<u>0.792</u>	<u>1.291</u>	<u>Emerald Publishing</u>
<u>Labour And Industry</u>	<u>71</u>	<u>182</u>	<u>2.6</u>	<u>0.457</u>	<u>0.879</u>	<u>Taylor & Francis</u>
<u>Quality Access To Success</u>	<u>825</u>	<u>1168</u>	<u>1.4</u>	<u>0.177</u>	<u>0.316</u>	<u>SRAC</u>
<u>Human Resource Management International Digest</u>	<u>298</u>	<u>15</u>	<u>0.1</u>	<u>0.102</u>	<u>0.003</u>	<u>Emerald Publishing</u>
<u>Human Resource Management Journal</u>	<u>197</u>	<u>2345</u>	<u>11.9</u>	<u>2.698</u>	<u>2.629</u>	<u>John Wiley & Sons</u>
<u>International Journal Of Human Resource Management</u>	<u>562</u>	<u>6592</u>	<u>11.7</u>	<u>2.078</u>	<u>2.429</u>	<u>Taylor & Francis</u>
<u>International Journal Of Manpower</u>	<u>325</u>	<u>2738</u>	<u>8.4</u>	<u>1.249</u>	<u>1.550</u>	<u>Emerald Publishing</u>

Source: Derived from the Scopus database.

Regarding journal rankings, "Technological Forecasting and Social Change" has the highest Cite Score (21.3), followed by "Human Resource Management Journal" (11.9) and "International Journal of Human Resource Management" (11.7), demonstrating their academic influence. The SJR and SNIP indicators confirm that Elsevier, John Wiley & Sons, and Taylor & Francis are the dominant publishers in this domain.

On the other side to evaluate an author's impact in a specific field, it is essential to consider multiple parameters beyond the number of publications. We analyzed the number of publications produced by the most prominent authors (Table 2). We included all authors with a minimum of three (03) documents, and 25 authors met this threshold.

Among them, ten (10) authors were selected, with McCartney, S., Fu, N., and Tavakoli, M.M. leading the ranking with five and four publications each, respectively.

Table 2 : The top 10 highly productive author

Author	Documents
McCartney, S.	5
Fu, N.	4
Tavakoli, M.M.	4
Aroles, J.	3
Arora, M.	3
Bartram, T.	3
Cavanagh, J.	3
Cooke, F.L.	3
Elbanna, A.	3
Ferraris, A.	3

Source: Derived from the Scopus database.

Authors who have published three or four documents all demonstrate a significant level of academic engagement. However, McCartney (five documents) appears to be the main contributor on this list, suggesting that he plays a leading role in research production. Other authors, with three publications, exhibit a similar but slightly lower level of academic activity. The data therefore indicate a relatively balanced distribution of research output, with a few particularly prolific authors standing out.

4.3. Research question 3

Which countries have been the most productive in HR digitalization research? In the content analysis made for the most productive countries in the online HR digitalization, “country,” “Total Publications,” “and “most productive academic institution” were chosen as the analysis criteria as shown in Table 3 and Figure 4.

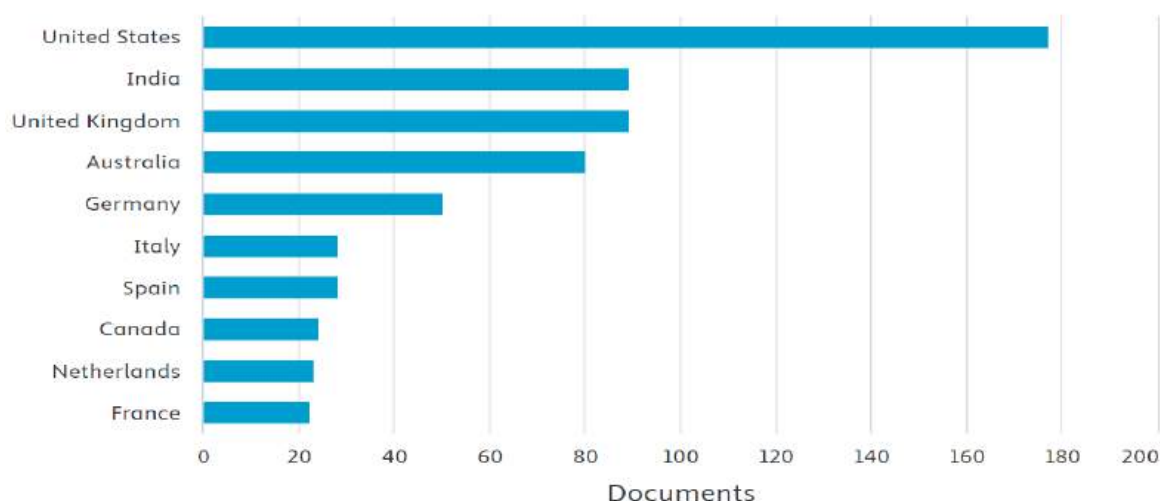
Table 3 : Number of publications by organization and country

Country	Organization	TP
USA	University of North Carolina	<u>177</u>
INDIA	Loyola Institute of Business Administration	<u>89</u>
UNITED KINGDOM	University of Aberdeen, Scotland	<u>89</u>
AUSTRALIA	University of Sydney Business School	<u>80</u>
GERMANY	University of Hohenheim	<u>50</u>
ITALY	Bocconi University	<u>28</u>
SPAIN	University of Pablo de Olavide	<u>28</u>
CANADA	HEC Montréal	<u>24</u>
Netherlands	Royal Dutch Shell	<u>23</u>
FRANCE	INSEAD	<u>22</u>

Source: Derived from the Scopus database.

We can gain a broader perspective by considering only the countries of organizations that have published research on digitalization. The majority of cited and published documents come from U.S. organizations (177 documents), followed by India and the United Kingdom (89%). Therefore, the ten cited organizations represent only a small fraction of the total institutions involved. This suggests that the growth of literature on digitalization is the result of a global movement, primarily driven by Europe and North America, rather than the contribution of just a few organizations.

Fig 4 : Number of citations per countries



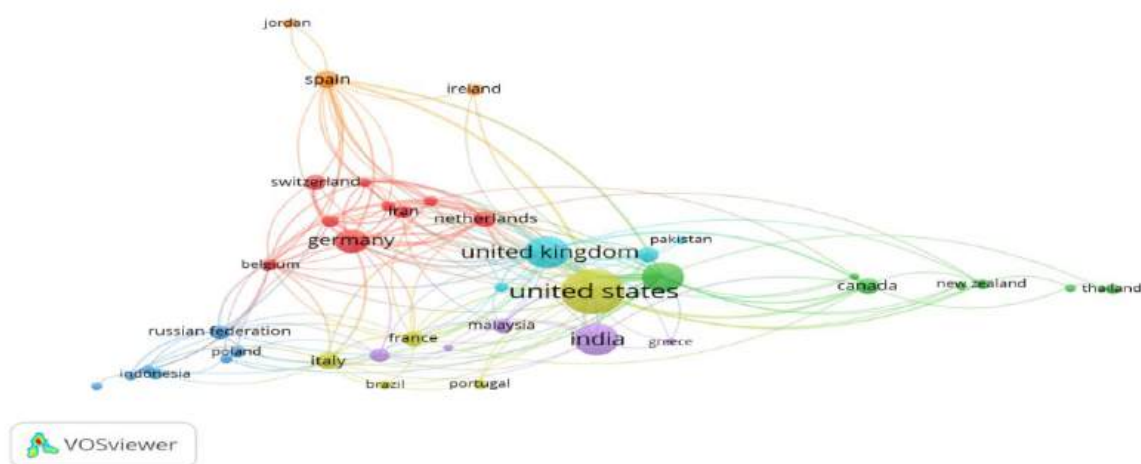
Source: Derived from the Scopus database.

As a result, it is possible to obtain samples that show which countries are more likely to collaborate on writing a document. No minimum number of citations per country was imposed

to ensure a coherent and accurate result. The only selection criterion was having at least eight (8) documents per country. This threshold was determined after testing to ensure that only countries with collaborative relationships with others were included.

This mapping below represents scientific collaborations between different countries, generated using VOSviewer. The visualization is based on co-authorship analysis, highlighting the interconnections between researchers affiliated with various nations in academic publications. Each node represents a country, while the links indicate the strength of collaborations. The different colors reflect clusters of highly interconnected countries, forming research networks. The network analysis helps identify several key players in scientific production, shedding light on the most influential countries in the field.

Fig 5 : Analysis results of productive countries in HR digitalization research



Source : Extracted from VosViewer

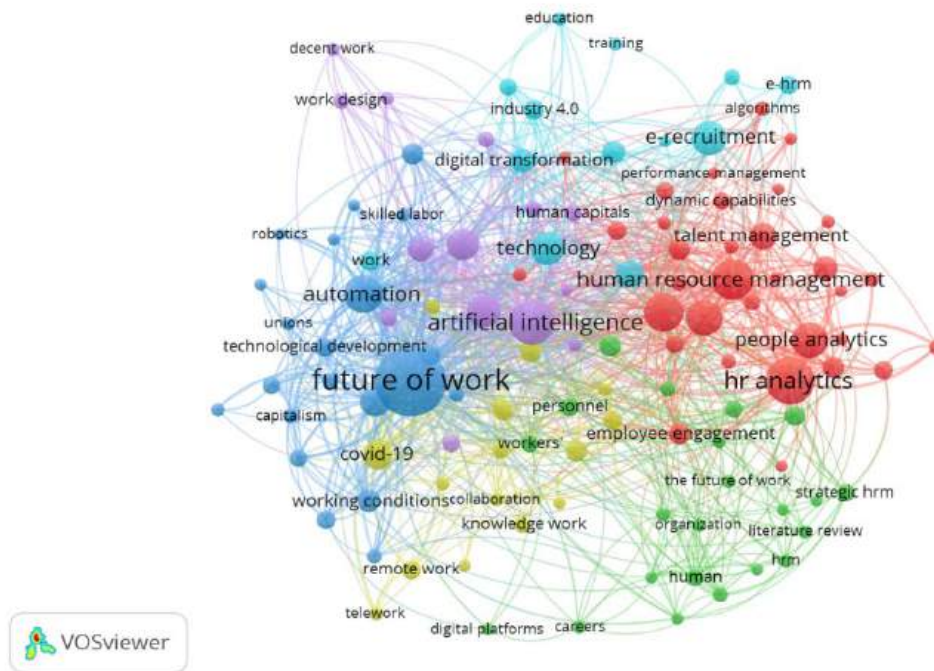
4.4. Research question 4

What are the main research keywords related to HR digitalization over the past decade ? For the bibliometric analysis of the most used keywords, “Co- occurrence” was selected as the analysis type.

The figure below presents a mapping of the most frequently associated keywords in scientific publications (HR) digitalization. This graph, generated using VOSviewer, illustrates the relationships between emerging concepts, structuring the research field into several interconnected thematic clusters.

Each node represents a keyword, with its size reflecting its frequency of occurrence, while the links between nodes indicate co-occurrences in academic publications.

Fig 6: Analysis results of publications by keywords



Source: Extracted from VosViewer

The network analysis reveals three main thematic clusters, each corresponding to a specific research focus:

- **Blue Cluster – Automation and Transformation of Work**

This group highlights concepts related to the future of work, automation, robots, and working conditions. It also includes recent topics like remote work, digital collaboration, and the impact of COVID-19 on work organization.

This thematic cluster underscores the rising focus on how evolving work practices and digital transformation impact employment structures and professional interactions.

- **Red Cluster – Digitalization of HR and Data Analytics**

This cluster encompasses ideas like e-recruitment, talent management, HR analytics, and human resource management (HRM). It draws attention to the growing use of digital technologies to improve HR decision-making and talent management procedures. Particularly through the use of algorithms and digital platforms, artificial intelligence is becoming a significant force behind HR procedures.

- **Green and Yellow Clusters – Digital Platforms and Employee Engagement**

This cluster explores the relationships between emerging technologies, human capital, and organizational practices with a focus on employee engagement, strategic HRM, and digital platforms. Along with the implications for new employment models and the skills needed in a workplace driven by technology, it also looks at the reciprocal effects of these factors.

All things considered, the bibliometric results demonstrate how dynamic and ever-changing the field of HR digitalization research is. The changing nature of work and new HR practices highlight the need for constant adaptation by organizations and academics to keep up with this quick digital transformation, while artificial intelligence, automation, and data analytics stand out as important drivers.

5. Discussion

This review arranges the literature by highlighting the major themes and advancements influencing this new field, which is based on the results of a bibliometric analysis of HR digitalization publications. According to the analysis, there has been a noticeable rise in scholarly output, which is indicative of the growing interest in the digital transformation of HR among academics and organizations. One example of how these technologies are changing talent management, hiring, and decision-making processes is the application of automation, artificial intelligence (AI), and data analytics to HR functions. With potentially significant ramifications for the nature of work in the future, this trend shows how digitization is gradually influencing HR procedures across industries.

Based on the findings of a bibliometric analysis of HR digitalization publications, this review organizes the literature by identifying the key themes and developments that are shaping this emerging field. The analysis reveals a notable increase in scholarly output, reflecting the growing academic and organizational interest in the digital transformation of HR. The application of automation, artificial intelligence (AI), and data analytics to HR functions exemplifies how these technologies are reshaping talent management, recruitment, and decision-making processes. This trend demonstrates that digitalization is progressively permeating HR practices across sectors, with potentially profound implications for the future of work.

The data further indicate that the United States leads global contributions to HR digitalization research, followed by countries such as India and the United Kingdom, underscoring the international scope of this field. As illustrated in Figure 6, the United States accounts for a substantial proportion of publications, highlighting its pivotal role in advancing digital HR innovation. The analysis also suggests that countries demonstrating higher levels of research collaboration—including the United States, Germany, and Canada—tend to produce publications with greater impact and wider dissemination. These findings underscore the importance of international and institutional collaboration, with Europe and North America playing prominent roles in promoting research in this domain.

Moreover, the study identifies several primary streams within HR digitalization, including process automation, the integration of AI in HR decision-making, and the use of data analytics to enhance employee engagement and performance management. These thematic clusters provide a comprehensive overview of the dominant directions and emerging priorities within the literature. This is indicative of the broader trend towards strategy-based data driven HR management, particularly focused on enabling organizational efficiency and working structures applicable to the modern age of technology. This move is especially important considering all the changes in the workforce as a result of COVID, advancing digital transformation in HR.

Overall, the findings suggest that the field of HR digitalisation is growing rapidly and is having an increasingly significant impact on the future of work. As organisations continue to embrace digital transformation, HR departments will play a pivotal role in navigating these changes. Research and collaboration will be essential to advancing the field.

This study has certain limitations. Firstly, the bibliometric analysis relied solely on the Scopus database and was restricted to English-language articles ($n = 774$), which may limit its scope and introduce language bias. Additionally, the representation of some research domains may be influenced by database coverage and indexing practices. To ensure reproducibility, the search strategy and methodological steps have been clearly outlined. Future research should replicate this study using multiple databases and a broader range of languages.

6. Conclusion

A thorough review of the literature on the digitization of human resources is provided by this bibliometric analysis, which also sheds light on the development of important themes, publication trends, and patterns of scientific collaboration. Significant changes in HR management practices are reflected in the expanding use of technologies like artificial intelligence, big data, and HR platforms, which have significant operational and strategic ramifications. The steady increase in publications demonstrates the growing interest in HR digitalization and its effects on organizational performance among academics and professionals.

Along with these conclusions, the study highlights ongoing issues with skill adaptation, data privacy, technology adoption, and ethical issues when using digital tools for HR management. These difficulties show how much more research is needed to understand how digitalization will affect HR practices, data governance, and the harmony between automation and human-centered HR processes in the long run.

These challenges underscore the necessity for further research on the long-term effects of digitalization on HR practices, data governance, and the equilibrium between automation and the humanization of HR processes.

The analysis of collaboration networks reveals the emergence of influential research hubs and institutional synergies contributing to advancements in this field. However, the thematic concentration of existing research calls for diversification in perspectives, encouraging exploration into less-studied areas such as the impact of digitalization on employee well-being, diversity management, and new forms of work organization driven by digital transformation.

This study establishes a solid foundation for researchers and practitioners seeking to understand ongoing changes and anticipate the future evolution of HR management in the digital era. By offering critical insights into the opportunities and limitations of HR digitalization, it contributes to the enrichment of academic discourse and provides guidance for future research toward a more integrated and multidimensional approach to this transformation. Through an in-depth bibliometric study of 774 articles published between 2010 and 2024, employing tools such as VOSviewer, we have mapped trends, identified dominant themes, and highlighted key contributors in this domain.

Our structured methodological approach has enabled a systematic examination of the publication landscape and scientific collaborations related to HR digital transformation. The findings indicate a notable concentration of influential academic contributions from North America and Europe, with emerging research efforts gaining momentum in Asia and the Middle East.

Three major research domains have been identified: the first focusing on the impact of digital technologies on talent management and recruitment, the second on the automation of HR processes and emerging work models, and the third on ethical and organizational challenges associated with digitalization. This final research area, while currently less developed, is expanding rapidly and is poised to play a crucial role in future studies on the subject.

The results of this study serve as a valuable reference for both academics and professionals aiming to deepen their comprehension of digital transformation in HR management. To further investigate topics like change management, employee digital training, and the legal frameworks governing HR algorithms, future research should build on these findings by combining complementary quantitative and qualitative methodologies.

This study contributes significantly to the academic discourse on HR digitalization by offering a structured overview of the research on the topic and highlighting promising areas for further investigation. This results in a better understanding of the challenges and implications of this ongoing transformation in contemporary organizations.

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