A bibliometric analysis on HRM in the Age of Artificial Intelligence: Emerging Trends and Challenges

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Abstract:

The examination spans a broad spectrum of data, encompassing insights on the most prominent authors and influential institutions, as well as the focal themes that have garnered significant attention within this domain. It serves as a tool for pinpointing areas where knowledge gaps persist and where further research is necessitated. Furthermore, it furnishes practical insights of value to HR professionals, organizations, policymakers, and researchers, thereby contributing to a comprehensive comprehension of the opportunities and challenges inherent in the sphere of HRM in the Age of Artificial Intelligence.

Although a relatively novel concept, this study encapsulates a snapshot of the current landscape of E-HRM. Notable findings encompass the year 2020 emerging as the most prolific in terms of publications, with 2022 garnering the highest citation count (606). Among the most prolific authors, Cooke F.C. has published 68 articles stand out with ten publications and an impressive 431,459 citations. Furthermore, in 2022, Twente University in the United States of America published a staggering 7,000 articles, while China closely followed with nearly 6,000 articles. This data suggests that these two nations are at the forefront of technological advancements. The Advanced Series in Management emerges as the most influential source with a total of 28 publications.

Our analysis reveals a surge in research interest and publications related to AI's impact on HRM over the past decade. We highlight the prominent role played by AI in recruitment, talent management, and employee engagement. Additionally, we identify the growing importance of ethical and legal considerations in deploying AI-driven HR solutions.

Challenges surrounding the ethical use of AI, data privacy, and the potential for algorithmic bias are discussed as significant concerns. Moreover, the study highlights the importance of HR professionals cultivating a comprehensive grasp of AI technologies and their incorporation into HRM procedures.

As organizations increasingly adopt AI-driven HRM solutions, this bibliometric analysis provides a roadmap for researchers and practitioners, offering insights into the key areas of concern and opportunities for future research. The findings underscore the critical importance of a balanced approach that harnesses the potential of AI, while addressing ethical, legal, and human-centric issues to ensure the effective and responsible use of AI in HRM.

KEY WORD: Human Resource Management, Artificial Intelligence, Challenges, Bibliometric Analysis, Workforce Management.

1   INTRODUCTION

The introduction to a bibliometric analysis on the subject of (HRM) in the era of AI as demonstrated by [1] and [2], typically establishes the groundwork for the research. It does so by offering an outline of the importance and contextual background of the subject matter.

In recent years, as noted by [3] the convergence of (HRM) and (AI) has become a central focus of examination and research within the domain of organizational studies. As highlighted by (Khan and Faisal in 2023), the integration of AI technologies into HRM practices presents unprecedented opportunities as well as formidable challenges for both businesses and human resources professionals. [4]With AI continuously advancing and transforming the contemporary workplace, it becomes crucial to acquire an in-depth comprehension of the evolving terrain of HRM in the era of Artificial Intelligence, as emphasized by (Pereira et al. in 2023).

[5]This bibliometric analysis seeks to explore the extensive body of literature that has grown around this critical theme. [6]By harnessing the power of bibliometric tools and techniques, we aim to not only identify the emerging trends but also to uncover the challenges HRM faces in adapting to an AI-driven world. [7]The analysis will delve into the rich repository of scholarly works, research articles, and publications to provide an insightful and data-driven examination of the subject matter.

[8] As we set out on this bibliometric exploration, our objective is to illuminate the primary research domains, notable authors, influential periodicals, and the worldwide dissemination of research concerning HRM and AI. [9]This research endeavor is envisioned to serve as a valuable resource for scholars, practitioners, and policymakers [10]seeking to navigate the intricate and ever-evolving landscape of HRM in the context of AI, fostering a deeper understanding of the ongoing developments and anticipating the challenges that lie ahead.

1.1 AI IN THE ROLE OF HRM:

Artificial Intelligence swiftly form an integral component in the domain of (HRM), fundamentally altering the traditional approaches to [11]workforce management and optimization.[12] AI is redefining the HRM landscape by introducing automation, data-driven decision-making, and enhanced employee experiences. [13] In this introduction, we embark on a journey to unravel the pivotal role of AI in HRM, where manufacturing machine algorithms, [14]natural language processing, and predictive analytics are employed to transform recruitment, talent development, employee engagement, and more. [15]As organizations strive to adapt to the evolving needs of the modern workforce, understanding AI's integration into [16]HRM is critical for unlocking greater efficiency, driving informed decision-making, and nurturing a thriving, inclusive, and forward-looking workplace.[17] This introduction serves as a gateway to explore the multifaceted ways in which AI is reshaping HRM, ultimately enabling organizations .

[11]It notes that AI will lead to a transformation in HR roles, with AI taking over routine and administrative tasks. [18]This shift will create new jobs that emphasize high-level tasks, communication, and coaching skills, highlighting the importance of caring for and connecting with people. [19]The transformation necessitates a new mindset and skill set aligned with corporate strategy, ultimately enhancing human intelligence and offering economic and qualitative benefits. [18]The document anticipates rapid and extensive change in all areas of HR and the employee life-cycle, prompting HR leaders to adapt workplace policies. [19]Furthermore, it raises the question of AI accountability for work, suggesting an issue for future discussion.

The document discusses the critical role of sustainable development at both national and international levels, [10]emphasizing the

significance of sustainable enterprises. [20]According to the International Labor Organization (ILO), sustainable enterprises are those that align economic growth with the social aspirations of people both inside and outside the organization, as well as considering the impact on the environment. [21]Sustainable enterprises are expected to innovate, adopt eco-friendly technologies, [22]develop human resources, and enhance productivity to remain competitive.

The ILO Centenary Declaration for the Future of Work underscores the importance of [23]sustainable enterprises in generating employment, promoting innovation, and supporting decent work. [24]It emphasizes the need for a private sector that fosters economic growth and job creation through an enabling environment for entrepreneurship and sustainable enterprises.[25]

The document highlights the ILO's advocacy for the "high road"[26] approach to productivity, which seeks to enhance productivity while respecting labor rights and improving working conditions. [27]This approach aligns with the ILO's human-centered agenda, [28]emphasizing workers' rights and people's needs, aspirations, and rights in economic, social, and environmental policies.[29]

The paper's main focus is to explore the use of [25] assess its impact on firm and individual performance. [26]It begins by examining the high-road approach's principles and how they relate to AI usage in HRM. [27]It then delves into the pro and cons of AI in the workplace, particularly in areas such as hiring and work organization. [28]The paper concludes by briefly discussing potential policy responses to AI-related and other technological challenges.

2.METHODOLOGY:

Conducting a bibliometric analysis on the topic of "HRM in the Age of Artificial Intelligence: Emerging Trends and Challenges" involves systematically collecting and analyzing relevant literature to gain insights into the current state of research in this field. Here's a step-by-step methodology for conducting such an analysis (**Kshetri et al. in 2021).**

Clearly define the objectives of your bibliometric analysis. What specific trends and challenges related to HRM and AI are you interested in exploring? This will guide your literature search and analysis **Ray et al. in 2005**. Identify Relevant Databases: Select appropriate academic databases, such as and any other relevant sources. b. Develop Search Queries:

Create comprehensive search queries using relevant keywords and Boolean operators. Example query Customize the query to match the syntax of each database. c. Conduct the Search: Execute the search queries in the selected databases to retrieve relevant articles, conference papers, and other scholarly materials.

a.) Remove Duplicates: Use reference management software to identify and remove duplicate records from your search results. b.) Title and Abstract Screening: Evaluate the relevance of each article by reviewing titles and abstracts. Exclude articles that do not pertain to your research objectives. [29]c.) Full-Text Review: [30]Obtain and review the full text of the remaining articles to ensure they align with your research goals. a. Create a data extraction form or spreadsheet to capture relevant information from the selected articles. This may include publication year, author(s), journal/conference, methodology, and key findings. b. Extract data from each article systematically.

a. Descriptive Statistics: Calculate descriptive statistics to provide an overview of the literature, such as the distribution of articles over time, the most prolific authors, and popular journals. b. Co-citation Analysis: [31]Identify articles that are frequently cited together, indicating common themes and connections in the literature. c. Keyword Analysis: Identify prevalent keywords and phrases within the selected articles. d. Network Analysis: Visualize the relationships between authors, articles, and keywords using network analysis tools if available. e. Content Analysis: [32]Summarize and categorize the key findings and trends in the literature related to HRM and AI [33] Create visual representations of your findings to make them more accessible and understandable. This may include graphs, charts, and network diagrams. [34]Analyze the results to draw conclusions about the emerging trends and challenges in HRM and AI based on the bibliometric analysis. Discuss the implications of your findings for the field of HRM and AI. What do these trends and challenges suggest for future research and practice? Compile your findings and analysis into a research report or

paper. Follow the appropriate citation style (e.g., APA, MLA) for referencing sources.

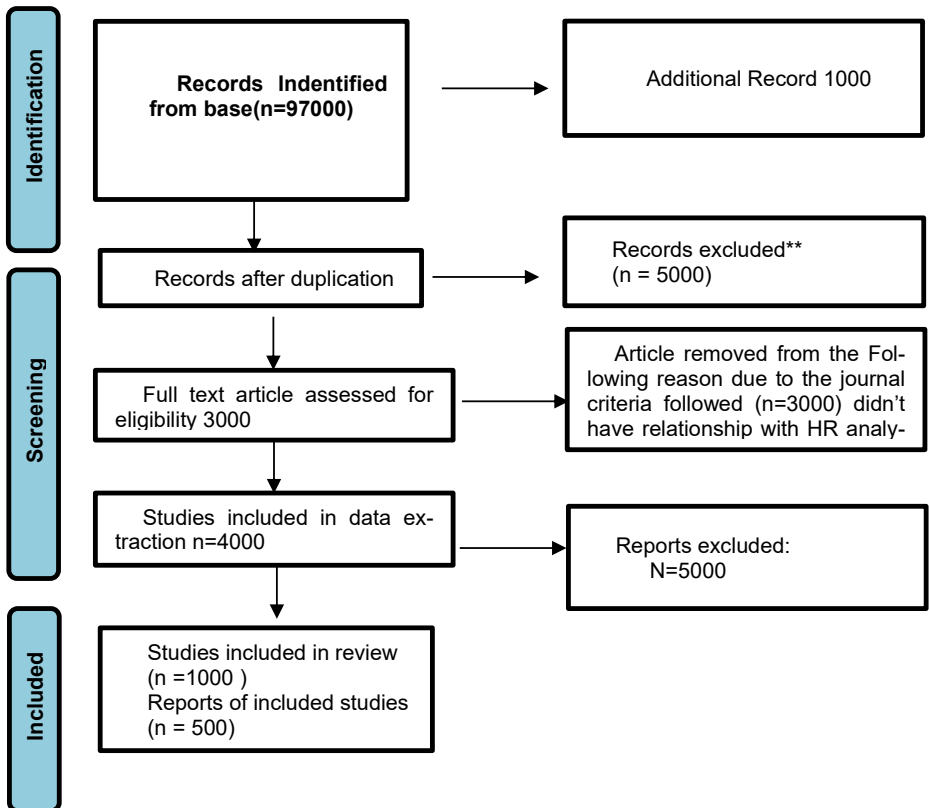**2.1 Inclusion/Exclusion Criteria:**

The electronic databases, including but not limited to Emerald Insights, EBSCOHost, and Google Scholar, along with ResearchGate

and Academia.edu, to access both full-text research journals and abstracts. [35]Furthermore, we conducted searches on Amazon and explored the online catalogs of notable libraries, including the different libraries in all over the state [30]Grey literature, comprising published documents not typically found in academic databases, was identified through an electronic search on Google Scholar. In addition to these sources, we scrutinized newspapers, white papers, and websites. [36]We also initiated additional searches by examining the references in relevant articles, which led to a cumulative search effect. Figure 01 visually represents our search and inclusion strategy, while Table 01, following the PRISMA methodology, outlines the criteria for including and shortlisting research materials.

Researchers utilized PRISMA flow diagrams to visually depict the process of identifying and selecting published data for their review. Figure 1 presented a streamlined 4-phase flow diagram and a 27-item checklist as per PRISMA statement. This checklist included information about the characteristics of the included studies, the assessment of quality and bias within these studies, and the findings derived from various studies. Additionally, the researchers incorporated an assessment of the strength of the evidence and highlighted the limitations of their review in their main finding's summary.

Figure 1 proved valuable in illustrating the key outcomes of a systematic review comprising 3000 relevant studies on HRM, particularly concerning odd ratios or risk differences. In their summary of the main findings, the researchers considered not only the robustness of the evidence but also outlined the limitations of their review.

Figure 1. PRISMA Methodology
Source: PRISMA Output (2023)

Identification

Records Indentified from base(n=97000) → Additional Record 1000

Screening

Records after duplication → Records excluded**
(n = 5000)

Full text article assessed for eligibility 3000 → Article removed from the Following reason due to the journal criteria followed (n=3000) didn't have relationship with HR analy-

Studies included in data extraction n=4000 → Reports excluded:
N=5000

Included

Studies included in review
(n =1000)
Reports of included studies
(n = 500)

Measures like odd ratios, risk differences, sensitivity, specificity, and more, from the systematic review of these 4000 interconnected HRM studies. Additionally, the researchers acknowledged the importance of using a funnel plot to assess publication bias in reviewed literature. It's important to note that the specific standards for organizing figures in scholarly journals may vary.

3.RESULTS AND INTERPRETATION:

In this research, the researcher collected the data from the SCOPUS website they are 5000 data. The value are categories in the specific title Year (Table 1, Figure 1), author (Table 2, Figure 2) ,Country (Table 3,

Figure 3) , Funding sponsor(Table 4,Figure 4) , sources of data (Table 5, figure 5) , the subject area (Table 6, Figure 6) are mentioned.

3.1. Number Of Publication By Year:

. The substantial upsurge in E-HRM publications can be attributed to the growing need for expertise within enterprises, driven by the current economic landscape. The world's increasing complexity, dynamism, and uncertainty, brought about by globalization and recent advancements in communication and information technology, have significantly contributed to this trend. With customers having elevated expectations concerning performance, quality, and pricing, businesses find themselves in an ongoing state of competition, as indicated by Nivlouei in 2014.

Many academics contend that the increasing prevalence of E-HRM is poised to instigate significant alterations in organizational frameworks. [37] .This popularity is also expected to enhance service quality, expedite decision-making processes, and lead to the fundamental reengineering of HR procedures and strategies through E-HRM, all of which are essential for competing in a fiercely competitive market. Organizations are increasingly adapting to these transformations.
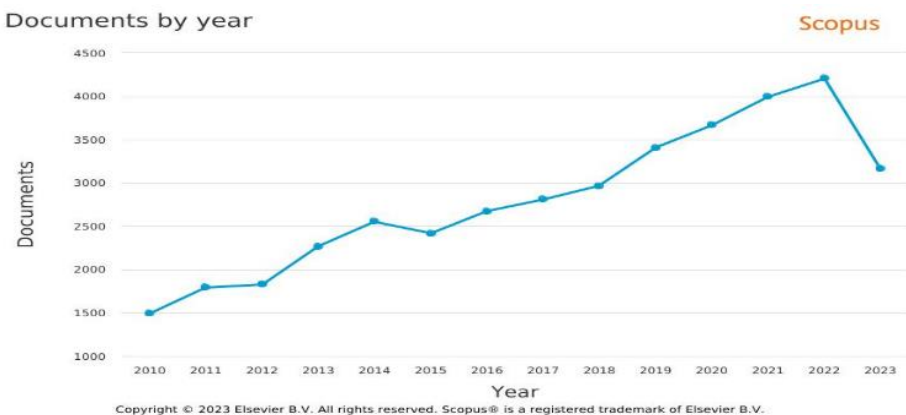
Fig. 1. Publication By Year:

Table 1 Author and Co-authorship Analysis:

ID	AUTHOR	DOCUMENTS	TOTAL LINK STRENGTH
836	AHN, C.R.	65	8
1798	ALI, M.	58	5
1971	ALMEIDA, H.	41	16
2704	ANTWI-AFARI, M.F.	40	18
3833	BAI, Y.	39	27
4362	BARTRAM, T.	33	28
6147	BREWSTER, C.	30	10
6402	BUDHWAR, P.	27	30
6596	BUSHUIEV, D.	27	18
6597	BUSHUIEVA, V.	23	13
6598	BUSHUYEV, S.	20	18
6599	BUSHUYEVA, N.	20	13
6748	CAFFERKEY, K.	20	11
6750	CAGAN, J.	20	25

Inference:

From the above figure it was informed that the EHRM related papers were published during the year 2022 is 4300 is more than the other year. It was concluded that during the year 2022 more article got published. There is a fluctuation during the year 2010 only 1500 article got published and on the year 2011 total 1700 article got published, 2014 year the total publication is 2500 , 2016 year the total publication is 2600, the finding indicates that in the year 2019 there is 3500 and 2020 year is 3700. The trend again repeated during year 2010 nobody knows about Artificial intelligent so as the year goes on, they started knowing about the latest technology and started using in all the field so it got gradually increased and during 2022 it attains the peak were many knows about this and starting using that Artificial intelligent in the EHRM.
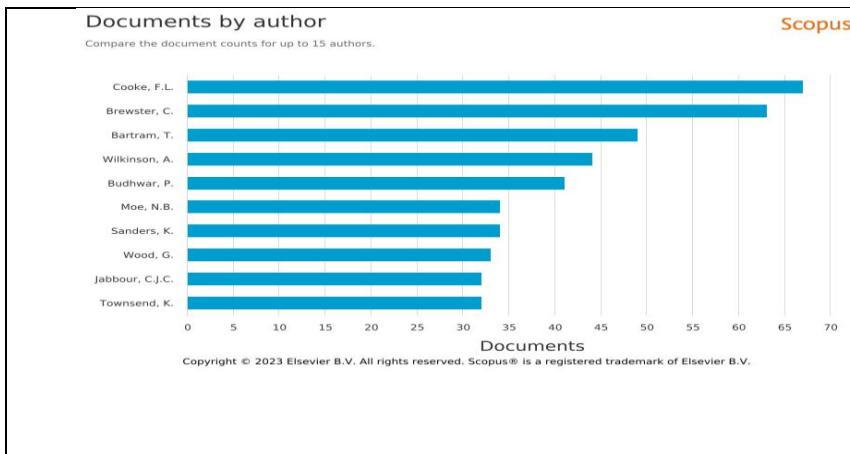
**3.2 Author and Co-authorship Analysis:**

. Gather information about their name, academic or professional affiliations, and their expertise or field of study. Understanding their background will help you contextualize their publications. To find a list of an author's publications, you can use academic databases, libraries, or their personal or professional website. The most common databases for

academic publications include Google Scholar, PubMed, Scopus, and academic library catalogs. Authors may have written various types of publications. These can include books, research articles, conference papers, reports, essays, or even blog posts. Depending on your specific research needs, you can filter their publications accordingly. When looking at an author's publications, you can also check for the number of citations their works have received. Citations can indicate the impact and influence of an author's research in their field.

Identify where the author's works have been published. This can include specific academic journals, publishers, or platforms. Different publication outlets have varying levels of prestige and relevance in different fields. Many authors maintain personal or professional websites or profiles on platforms like ResearchGate or LinkedIn. These profiles often provide a comprehensive list of their publications.

Fig. 2.   Author and Co-authorship

Fig. 3. Author and Co-authorship Analysis:
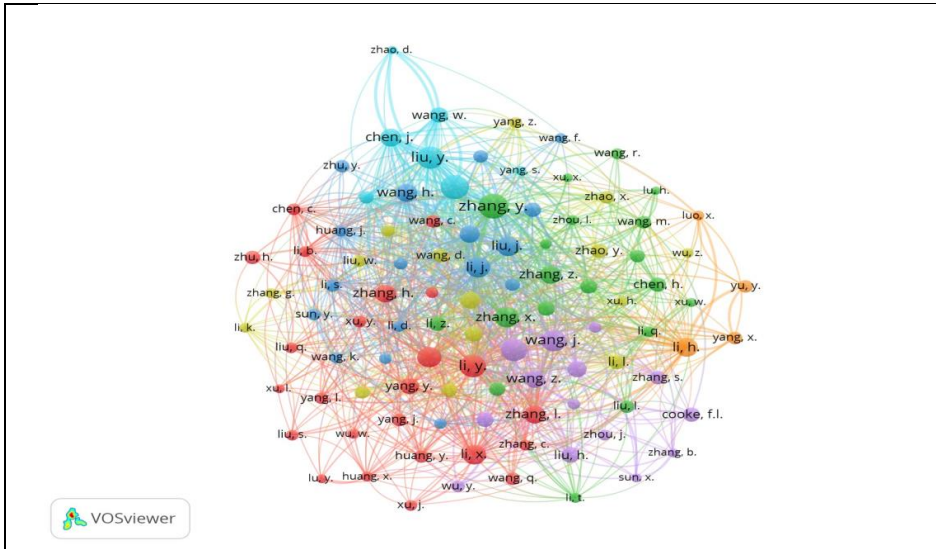
INFERENCE:

The provided information discusses the research output of various authors in the context of ECRM (Electronic Customer Relationship Management). It highlights the number of publications and citations for each author, shedding light on their contributions to the field.

Cooke F.C. has published 68 articles from 2000 to 2022, indicating a gradual and consistent commitment to researching ECRM. These publications have garnered 380 citations, suggesting that Cooke work F.C is influential and highly regarded within the ECRM domain. Several other authors have referenced Cooke work in their own research, as evidenced in Figure 2. This demonstrates the impact and relevance of Fjermestad's contributions to other scholars in the field. Brewster.C. is noted for having 63 publications and 290 citations, indicating a commendable level of engagement and recognition in the ECRM research community.

Authors Bartram.T. have published 48 articles, respectively, with varying citation counts. Their contributions have been cited 201 times, highlighting their valuable input to the ECRM literature. Author Budhwar.P stands out with 40 publications and an impressive 362 citations. This is notably higher than Cooke F.C 275 citations, underlining the substantial impact of Towsend. K work on the development of ECRM research.

The information underscores the significance of highly cited articles in advancing the field of ECRM, as they play a fundamental role in addressing keynotes based on previous studies and filling existing gaps in the research landscape.

3.3 PUBLICATION BY THE COUNTRIES

According to the data presented in Figures 5 and 6, the United States of America leads in ECRM (Electronic Customer Relationship Management) research with 7000 publications, accounting for 875% of total publications indexed. China follows with 6000 publications (75%), the United Kingdom with 3000 publications (37.5%), and Australia with 2500 publications (31.25%).

Interestingly, the data highlights that India nations collectively contribute more than 25% of ECRM articles, indicating Europe's significant academic presence in this field. This may be attributed to factors such as thriving commercial activities, cultural background, and the presence of academic institutions in European countries.
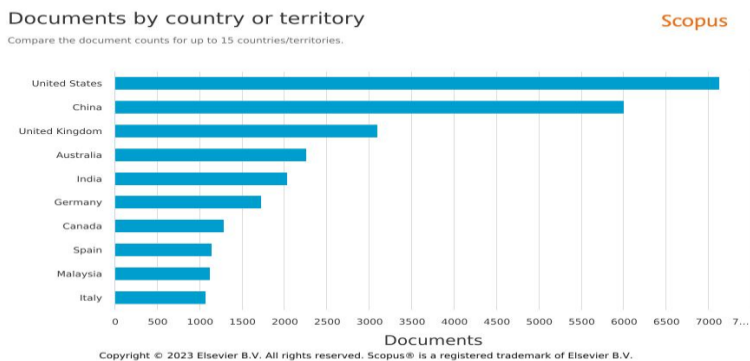
Table 3 provides further details on ECRM publications in various countries, with Germany having 1700 publications, Canada with 1400, and Spain and Malaysia closely matched at 1300 and 1200 publications. Italy also makes substantial contributions with 1000 publications, respectively.

Although the United state has the highest sponsorship, the China surpasses it in terms of the number of publications. This suggests that both the United States and China have made a considerable impact on the global market with their products and services, which align with the applications of ECRM. Additionally, India, ranked fifth, exhibits the potential to climb higher in the list of ECRM research contributions in the coming years. The data reflects the global influence of the United States and China in penetrating world markets with their products and services, closely related to the field of ECRM.

Table 2 Publication by the country

Country	No of publication	%
United state	7000	87.5
China	6000	75
United Kingdom	3000	37.5
Australia	2500	31.25
India	2000	25
Germany	1700	21.25
Canada	1400	17.5
Spain	1300	16.25
Malaysia	1300	16.25
Italy	1000	12.5

Fig. 4. publication by   Country

Documents by country or territory   Scopus
Compare the document counts for up to 15 countries/territories.

3.4 Documents By Source:

There are 8000 publication available in the Scopus index database, but for this research I have taken 10 sources of publication for analysis from the figure 5 it was found that the majority of the articles published during the year 2020 in the journal Advance in Intelligent system and computing . The next largest publication was done through ACM international Conference proceeding serious during the year 2021 majority of the author published their article in this conference where they find easily

got indexed with less duration ,were the sustainability Switzerland is the next platform for the author to publish in their article . The least publication has happened in the journal called lecture notes, computer science, including subseries, lecture notes in artificial intelligence in the year 2022.

Fig. 5. Documents by Source

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3.5 Subject Area of Publication:

Fig. 6 Subject Area of publication:

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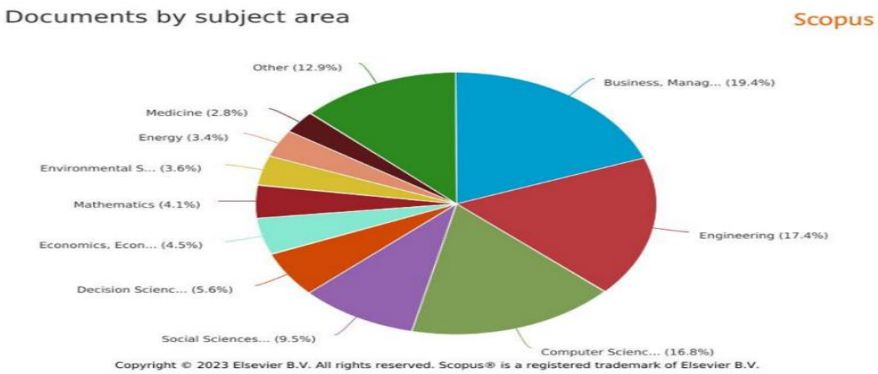
Table 4 Subject Area

SUBJECT	PERCENTAGE
Business Management	19.40%
Engineering	17.40%
Computer Science	16.80%
Social Science	9.50%
Decision Science	5.60%
Economic	4.50%
Mathematics	4.10%
Environment Science	3.60%
Energy	3.40%
Medicine	2.80%

INFERENCE:

This passage discusses the findings from a study, focusing on the areas of interest in the field of Electronic Customer Relationship Management (ECRM) and the distribution of publications and citations. Here's a summary of the key points.

- Business Management is the dominant area of interest in ECRM research, comprising 19.4% of total publications. It has the highest number of citations, with 976, indicating its significance in the field. Engineering, and Computing Science closely follow Social Science, with 9.5% of the total publications and 624 citations. This area shows promise and could potentially compete with Computer Science in the future.

- Decision science contributes 5.6% of the publications (359 in total). This suggests a significant scope for exploring ECRM applications in decision science, with a focus on practical solutions.Economic and Mathematics both have an equal share of

- 4.1 % in terms of publications, with 241 and 235 citations, respectively.Several other subject areas each contribute 12.9% of the publications.

3.5 Categorize By Keyword:

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<div align="center">Table 5   Categorize By Keyword</div>

ID	KEYWORD	OCCURRENCES	TOTAL LINK STRENGTH
29284	Human Resource Management	14093	88645
31606	Information Management	1728	13539
28951	Human	1506	23200
51796	Project Management	1432	10657
14224	Decision Making	1282	10636
2980	Article	1074	17432
63859	Surveys	1014	8608
55419	Resource Management	985	11644
29445	Human Resources Management	942	6032
29705	Humans	928	15847
48351	Personnel Training	909	7213
38640	Managers	897	6683
63147	Students	784	5269
35305	Knowledge Management	779	5213
63975	Sustainable Development	745	5823
55339	Resource Allocation	718	6334
55915	Risk Assessment	686	6655
3002	Artificial Intelligence	604	4184

INFERENCE:

The table (referred to as Table 5) presents information about the usage of certain keywords in articles or surveys. Here's a summary of the information provided:

- 14,093, authors used the keywords "Human Resources Management," "Information management," and "Human resources" in a total of 1,700 instances. This suggests that these keywords were not widely used by the authors.

- The keyword that garnered the highest level of usage was "Decision making," employed by the majority of authors and appearing 1,282 times in articles and 1,074 times in surveys, with a combined total of 1,014 occurrences. This illustrates that "Decision making" was a widely utilized keyword.

Fig. 7.   Categorize By Keyword

- On the other hand, the keywords "artificial intelligence" and "resources allocation" were used much less frequently, with only 600 and 604 instances, respectively. It is suggested that few authors used these words, possibly because of limited awareness. However, it is expected that these terms will become more popular in the future, as "artificial intelligence" has become widely used in IT and other fields in recent years.

- In summary, the data from Table 5 shows variations in the usage of specific keywords by authors, with "Decision making" being the most commonly used, while "artificial intelligence" and "resources allocation" are used less frequently but may gain more popularity in the future

4.1 DISCUSSION:

Research discusses several key findings and insights related to the application of latest computer technologies in Manpower recruitment department. Here are summaries of the main points for each of the research questions:

Q1: AI's integration into HRM remains relatively uncommon, although its significance has grown notably in the past five years, with a substantial increase in publications observed in 2021. Several authors have remarked on the slower-than-anticipated progress in the accepting of AI within Man power recruitment department. Barriers to its implementation encompass the intricacy of HR processes, data issues, obstacles related to fairness and legality, as well as employee responses. Despite the emphasis on creating people-centric organizations in the "Fourth Industrial Revolution," many HR departments seem ill-prepared to seize this opportunity. Nevertheless, there is an expectation that HRM will experience significant transformations in the next decade, particularly in light of the ascent of Industry 4.0.

Q2: The research results indicate that a substantial portion of the current AI in HRM literature centers on its use in personnel selection, as noted by Lengnick-Hall et al. in 2009. This suggests that although AI's significance in HR is on the rise, its application is frequently limited in scope, overlooking broader aspects of human resource management. The automation of intricate processes is anticipated to necessitate personnel with advanced training and qualifications.

Q3: Identify the most famous and influential created of articles and research institutions in the profession of HRM and AI. Discuss the impact and contributions of these researchers and institutions. Examine highly cited articles and their contributions to the field. Discuss the impact of these influential articles on shaping research trends. Explore co-authorship networks to identify collaborative patterns among researchers. Discuss the significance of collaboration in advancing HRM research in the Age of AI.

Q4: Studies indicate that a company's competitive edge hinges on elements such as customer contentment, cost efficiency, innovation, and operational productivity. In the realm of, the chief function of Computer technologies lies in augmenting the efficiency and efficacy of HR operations. This is achieved through streamlining recruitment and retention processes, automating repetitive tasks, and curtailing labor expenses. Moreover, fostering innovative processes is of paramount importance for corporate entities, as they play a pivotal role in shaping strategic approaches.

Overall, the integration of AI in HRM is a growing but complex area with challenges and opportunities, impacting various aspects of HR and organizational performance.

4.2 Practical Contributions:

. It assists in setting research priorities and agendas by identifying gaps in the existing literature. Researchers can use this information to focus on areas that require more exploration and attention, Contributing to the progression of knowledge within the domain.

HR professionals along with organizations can provide informed decisions about adopting AI in HRM. They can use the analysis to understand which AI practices have been effective in similar contexts and align their strategies accordingly.

By identifying influential authors and institutions, the analysis helps HR professionals benchmark their own practices against industry leaders. They can learn from best practices and adapt them to their specific organizational needs.

4.3 Limitations and Future Research:

- . The research work acknowledges certain limitations. One major limitation is the dispersion of information and the existence of specific issues that hinder the development of a comprehensive understanding of AI and HRM together.

- The document suggests a research agenda for the future. It underscores the importance of conducting studies that go beyond mere exploration of the topic and delve into in-depth investigations on AI's impact on HRM.

In summary, the research addresses a significant void in the academic literature by exploring the convergence of AI. and HRM. It provides a foundational framework for further research, offers practical insights for HR managers, acknowledges its limitations, and encourages future research to explore the implications of AI in HRM in a more comprehensive and in-depth manner.

5 .1 CONCLUSION:

Top of Form

The analysis has shown that while AI technology has witnessed extraordinary development in recent years, its full potential and impact on

Human Resource Management (HRM) have not been sufficiently explored. Most research has concentrated on AI's application in recruitment and selection, neglecting other crucial HR functions. The findings suggest that HR professionals and managers harbor concerns and unfavorable sentiments when it comes to implementing AI in HRM. These reservations, stemming from concerns about job displacement and the limitations of AI, can slow down its implementation. To overcome these challenges, the study emphasizes the importance of devising and executing an effective AI implementation strategy in HR departments. Such a strategy should aim to integrate AI securely within organizations, thereby mitigating potential risks and leveraging AI's capabilities.

The study emphasizes that, within the dynamic business environment, embracing transformative technologies like AI isn't a matter of choice but a fundamental requirement for organizations to sustain their competitiveness in the long run. It underscores that, over an extended timeframe, the utilization of transformative technologies such as AI isn't a matter of discretion ,but an essential step for organizations to endure in the constantly shifting business environment. Neglecting the integration of these technologies could lead to a decline in market standing, or even jeopardize the survival of the business. To sum up, the research serves as a crucial point of reference for comprehending the present status of AI in HRM, offering valuable insights into the possibilities and challenges in this field. It recommends that HR professionals and organizations should strategically embrace AI and stresses the pressing need to adapt to emerging technologies to sustain competitiveness in the evolving business milieu.

Reference:

[1]   A. Gayatri, P. Lavanya, C. Rajitha, N. K. Butta, and U. Supraveen, "Artificial Intelligence Deployment And The Potency Of Hrm Functions," *Int. Conf. Comput. Collect. Intell.*, 2023, doi: 10.1109/iccci56745.2023.10128552.

[2]   F. Roohani, "Application of AI in HRM and Employee Perception Analysis for the Usage of AI in Public and Private Organizations in Abu Dhabi," *J. Hum. Resour. Manag.*, 2023, doi: 10.11648/j.jhrm.20231104.12.

[3]   A. S. Gamage, "Human Resource Management and Artificial Intelligence: A Bibliometric Exploration," *Vidyodaya J. Manag.*, 2023, doi: 10.31357/vjm.v9ii.6370.

[4]   X. Zheng, Y. Zhou, and S. Iqbal, "Working capital management

of SMEs and managerial approaches in COVID-19: Implications for economic development & policy," *Econ. Anal. Policy*, 2022, doi: 10.1016/j.eap.2022.08.006.

[5] K. Piwowar-Sulej, S. Wawak, M. Tyrańska, M. Zakrzewska, S. Jarosz, and M. Sołtysik, "Research trends in human resource management. A text-mining-based literature review," *Int. J. Manpow.*, vol. 44, no. 1, pp. 176–196, Mar. 2023, doi: 10.1108/IJM-03-2021-0183.

[6] E. P. Paoki, D. P. E. Saerang, D. P. E. Saerang, D. P. E. Saerang, S. S. Pangemanan, and S. S. Pangemanan, "The Effect of Work Discipline and Team Work on Employee Performance (Case Study at PT. Bahasa Technology Solutions)," *null*, 2017, doi: 10.35794/emba.v5i2.16640.

[7] T. J. Raharjo, T. J. Raharjo, and Harianingsih, "The Effect of Motivation and Team Dynamic on Entrepreneurial Learning Success," *KnE Soc. Sci.*, 2019, doi: 10.18502/kss.v3i18.4758.

[8] J.-C. Lee and C.-Y. Chen, "Exploring the team dynamic learning process in software process tailoring performance.," *J. Enterp. Inf. Manag.*, 2020, doi: 10.1108/jeim-07-2019-0202.

[9] I. Akman and C. Turhan, "Investigation of employers' performance expectations for new IT graduates in individual and team work settings for software development," *Inf. Technol. People*, 2018, doi: 10.1108/itp-01-2017-0020.

[10] T. Bondarouk, T. Bondarouk, E. Parry, and E. Furtmueller, "Electronic HRM : four decades of research on adoption and consequences," *Int. J. Hum. Resour. Manag.*, 2017, doi: 10.1080/09585192.2016.1245672.

[11] E. Sipahi, E. Artantaş, and E. Artantaş, "Artificial Intelligence in HRM," *Handb. Res. Innov. Manag. Using AI Ind. 5.0*, 2022, doi: 10.4018/978-1-7998-8497-2.ch001.

[12] R. Menaka, "Role of Artificial Intelligence (AI) in Human Resource Management (HRM) in Recent Era," *Shanlax Int. J. Manag.*, 2023, doi: 10.34293/management.v11i2.6664.

[13] M. Renkema, "AI, Digitalisation, and HRM: Foundations, Extensions, and New Directions on AI, Digitalisation, and HRM," *New Dir. Futur. Work*, 2021, doi: 10.1108/978-1-80071-298-020211011.

[14] V. N.A., "The Contribution of HRM with AI for Customer Relationships Management during the COVID-19 Pandemic in

the Corporate Sector," *Int. J. Indian Cult. Bus. Manag.*, 2022, doi: 10.1504/ijicbm.2022.10052917.

[15] K. D. Strang, "Resistance, diseconomies, and abnormal AI behavior in HRM: a real-time big data action research experiment at a pharmaceutical," *Human-Intelligent Syst. Integr.*, 2022, doi: 10.1007/s42454-022-00046-6.

[16] T. Jonathan, F. Peihua, T. Bah, A. Souleymanou, and N. Y. H. Emmanuelle, "E g hrm in cameroon africa," *Arch. Bus. Adm. Manag.*, 2019, doi: 10.29011/2642-3243.100032.

[17] A. Saranya, "The Impact of Artificial Intelligence (AI) in Human Resource Management (HRM)," *Shanlax Int. J. Arts, Sci. Humanit.*, 2022, doi: 10.34293/sijash.v9i4.4758.

[18] Y. Pan and F. J. Froese, "An interdisciplinary review of AI and HRM: Challenges and future directions," *Hum. Resour. Manag. Rev.*, doi: 10.1016/j.hrmr.2022.100924.

[19] D. R. and S. Sekar, "Is my Manager AI Capable? Identifying Managerial Competencies in Implementing AI in HRM," *Acad. Manag. Proc.*, 2023, doi: 10.5465/amproc.2023.15457abstract.

[20] C.-D. Popescu and A. Popescu, "Implementating Information Technology in E-Human Resource Management," *Ovidius Univ. Ann. Econ. Sci. Ser.*, 2016, doi: null.

[21] F. B. Nivlouei, "Electronic Human Resource Management System: The Main Element in Capacitating Globalization Paradigm," *null*, 2014, doi: null.

[22] N. Kaushal, R. P. S. Kaurav, B. Sivathanu, and N. Kaushik, "Artificial intelligence and HRM: identifying future research Agenda using systematic literature review and bibliometric analysis," *Manag. Rev. Q.*, 2021, doi: 10.1007/s11301-021-00249-2.

[23] D. A. A. Hajam and A. S. John, "A CONCEPTUAL ANALYSIS OF THE DIFFICULTIES AND POTENTIAL HRM TECHNIQUES FOR THE INTERACTION OF MANPOWER WITH ARTIFICIAL INTELLIGENCE," *MORFAI J.*, 2022, doi: 10.54443/morfai.v1i2.744.

[24] S. Sabil, B. A. Bangkara, T. Mogea, E. Niswan, and E. Timotius, "Identification of HRM Improvement Strategy Using Artificial Intelligence in Modern Economic Development," *Int. J. Prof. Bus. Rev.*, 2023, doi: 10.26668/businessreview/2023.v8i6.1835.

[25] A. Radonjić and H. Duarte, "Artificial intelligence and HRM: HR

managers' perspective on decisiveness and challenges," *Eur. Manag. J.*, 2022, doi: 10.1016/j.emj.2022.07.001.

[26] R. Chadha and A. Mehta, "HRM and Role of Artificial Intelligence: Triple Bottom Line Sustainability," *2022 Int. Conf. Comput. Model. Simul. Optim.*, 2022, doi: 10.1109/iccmso58359.2022.00018.

[27] H. Saini and P. Tarkar, "Artificial Intelligence in Human Resource Practices With Challenges and Future Directions," *Handb. Res. Innov. Manag. Using AI Ind. 5.0*, 2022, doi: 10.4018/978-1-7998-8497-2.ch015.

[28] M. Tuffaha and M. R. P. Marín, "The role of Artificial Intelligence in transforming HRM functions. A literature review.," *Proc. 3rd Int. Conf. Bus. Meets Technol.*, 2021, doi: 10.4995/bmt2021.2021.13696.

[29] M. Tuffaha, "Adoption Factors of Artificial intelligence in Human Resource Management," *Futur. Bus. Adm.*, 2022, doi: 10.4995/thesis/10251/185909.

[30] S. Ghalawat, N. Kaushal, and N. Kaushal, "Research Perspective of Artificial Intelligence and HRM: A Bibliometric Study," *Int. J. Bus. Innov. Res.*, 2021, doi: 10.1504/ijbir.2021.10039745.

[31] W. Wisetsri, C. Vijai, K. Chueinwittaya, and P. Jirayus, "Artificial Intelligence in Human Resources Management -An Overview Artificial Intelligence in Human Resources Management - An Overview," no. June, 2023.

[32] D. A. S. Alam, "A STUDY TO KNOW THE RISK OF AI IN HRM AND ITS IMPACT ON THE RECRUITMENT PROCESS," *INTERANTIONAL J. Sci. Res. Eng. Manag.*, 2023, doi: 10.55041/ijsrem27792.

[33] R. Tsiskaridze, K. Reinhold, and M. Jarvis, "Innovating HRM Recruitment: A Comprehensive Review Of AI Deployment," *Mark. Manag. Innov.*, 2023, doi: 10.21272/mmi.2023.4-18.

[34] A. Malik, P. Budhwar, and N. R. Srikanth, "Gig Economy, 4IR and Artificial Intelligence: Rethinking Strategic HRM," *null*, 2020, doi: 10.1108/978-1-83867-223-220201005.

[35] P. R. Palos-Sanchez, P. Baena-Luna, A. Badicu, and J. C. Infante-Moro, "Artificial Intelligence and Human Resources Management: A Bibliometric Analysis," *Appl. Artif. Intell.*, 2022, doi: 10.1080/08839514.2022.2145631.

[36] Z. Hussain, J. Wallace, and N. E. Cornelius, "The use and impact

of human resource information systems on human resource management professionals," *Inf. Manag.*, vol. 44, no. 1, pp. 74–89, Jan. 2007, doi: 10.1016/j.im.2006.10.006.

[37]   2013 (Strohmeier, 2007; Marler and Fisher, "An evidence-based review of e-HRM and strategic human resource management - ScienceDirect," human resources management review. Accessed: Oct.   20,   2023.   [Online].   Available: https://www.sciencedirect.com/science/article/abs/pii/S1053482 212000459