Recruitment and Talent Management in the Modern World Using AI

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Purpose: This research focuses on the implementation of artificial intelligence (AI) in these areas, with concerns on demographic characteristics, talent constraints, and ethical concerns. The study relied on secondary qualitative research methods and the following databases: ProQuest, Google Scholar, Scopus, and Web of Science. Twenty-five publications were selected based on the following inclusion and exclusion criteria.

Study design/methodology/approach: The paper is intended to discuss and evaluate the various possibilities and consequences of AI implementation in the processes of recruitment and talent management. Thus, it is more concerned with the present and future use of AI, the advantages and disadvantages of its implementation, as well as how to properly and ethically apply it to these roles.

Findings: This research adopts a secondary qualitative research method, whereby the study gathered and analysed already existing qualitative data on AI in recruitment and talent management. The study includes a critical and analytical review of the state and development trends of AI in these areas, as well as the definition of the gaps and further research directions.

Originality/value: The study shows that AI can enhance the quality, efficiency, effectiveness, and equity of recruitment and talent management by automating, optimising, and personalising processes. However, it has been observed that the impact of AI is contingent on the quality of data, the algorithm used and the environment in which it is implemented. AI also has risks and limitations, such as privacy, security, accountability, and legal problems.

Keywords: Recruitment, talent management, artificial intelligence, human resource management, AI applications, workforce demographics, hiring procedures

Introduction

The indispensable functions of every organisation are recruitment and talent management, which affect the quality and quantity of human effort (Gallardo-Gallardo et al., 2020). The present-day world finds these functions facing several challenges that include changing workforce demographics, skill gaps, diversity and inclusion, employee retention, and ethical considerations. To tackle these issues, many companies are incorporating artificial intelligence (AI) as a system to enhance their recruitment and talent management processes. For instance, as Klucin (2020) suggests in a previous study, AI can help organisations with automation, optimisation, and personalisation of various aspects of those functions, such as sourcing, screening, training, development, and evaluation of candidates. However, AI carries the same risks and limitations as privacy, security, accountability, and legal issues. Hence, comprehending the advantages and disadvantages of AI adoption for recruitment and talent management is imperative, as well as how to integrate it efficiently and responsibly. Thus, the purpose of this paper is to examine and analyse the multiple scenarios and implications of AI use in recruitment and talent management in light of previous studies following a qualitative method analysis.

Significance of the Study

The main aim of the explored paper is to thoroughly investigate the current and future use of AI for recruitment and talent management in the present world. The research may investigate the different areas in which AI may be applied and the benefits and drawbacks, as well as recommendations and real-world practice, to assist organisations in using AI in a well-thought-out and ethical way. The study also intends to add to the current understanding and the body of research on the topic and point out the gaps and directions for further studies in this ever-evolving phenomenon.

Aims and Objectives

- To explore AI's current and future applications for recruitment and talent management in various areas, such as different industries and contexts.
- To analyse the merits and demerits of AI applications in recruitment and talent management functions and give an overview of the influence of AI on the quality, effectiveness, and fairness of these processes.
- To spotlight the potential of AI for use in recruitment and talent management and propose what areas and directions need to be explored in future research.

Research Questions

- What are the processes to explore current and future applications of AI for recruiting and managing talents in various areas of multidisciplinary fields?
- What are the merits and demerits of AI applications in recruitment and talent management processes?
- Which are the effective methods of AI involvement in the current landscape of different fields, and what are the future implications of recruitment and talent management processes?

Materials and methods

This study utilises a secondary qualitative research design approach, which is a collection and analysis of previously published qualitative data from previous studies on using AI for recruitment and talent management (Allal-Chérif et al., 2021). Moreover, this study provides a thorough, critical, and analytical synopsis of the current status and prospects for the use of AI in these contexts, and it also identifies the gaps and the directions for future research.

Research Design

The usage of secondary qualitative research is a practical approach for the study as it allows the researcher to review and synthesise the existing literature and knowledge on the subject matter. Secondary qualitative research involves using the existing qualitative data collected and analysed by other researchers for other purposes and its adaptation to another research question or purpose. The method utilises the time and resource-saving approach, the wide and deep range, and the more precise results that bring new angles and perceptions (Madden et al., 2018).

Data Collection

The data collection process includes screening and then exploring the right studies. The next step is a comprehensive literature search in databases like Google Scholar, Scopus, Web of Science, and ProQuest using keywords or their combinations (AI, Recruitment, Talent Management, Human Resource Management, and the Modern World).

Inclusion criteria: The search criteria of data collection in the studies involving research which are published in peer-reviewed journals or conference proceedings, written in English, and the focus should be on the application of AI for recruitment and talent management across different sectors, industries, and contexts.

Exclusion criteria: Studies that are duplicates, review articles, editorials, commentaries, or opinion pieces must be excluded. Also, those must be excluded if they are outdated, irrelevant, or of low quality.

Sample Selection

The screening process involves scanning through the abstracts and full texts of the screened studies and selecting the most appropriate and relevant ones to be used in the data analysis. The data collection process finished with 25 studies that met the inclusion and exclusion criteria and were included in the data analysis.

- The studies should range in different areas of AI for recruitment and talent management, including applications, advantages, disadvantages, and challenges of AI in these functions.
- The studies must be deep and elaborate enough to provide qualitative data that can be analysed and compared, e.g., interviews, case studies, observations, and documents.
- The research should be carried out with a well-structured research design, methodology, and analysis, and then should note down the findings, implications, and limitations of the research.

Data Analysis

The data analysis is conducted using the thematic analysis of the five selected studies' findings, as Braun & Clarke (2006) suggested.

Step 1: Being acquainted with the data means reading and rereading the studies and making notes with the first insights and impressions.

Step 2: Looking for themes involves collecting the codes into possible themes and checking them for relevance and cohesiveness to the data and the research question.

Step 3: Themes review, where refinements and revisions are made, ensures that there is enough consistent data to support the themes and that the themes encapsulate the essence and diversity of the data.

Step 4: Develop and label themes. This involves describing and summarising the themes and giving them a title that conveys their main idea and scope.

Step 5: Preparing for the report writing, which involves discussing the main themes and presenting evidence and examples of data to prove the arguments.

The findings of the thematic analysis are discussed in the following paper. The table below is for the search method that was applied during the data collection process.

Table 1: Search Strategy

Database	Keywords	Results	Screened	Selected
Google Scholar	artificial intelligence AND recruitment	18,700	100	10
Google Scholar	artificial intelligence AND talent management	9,980	100	8
Google Scholar	artificial intelligence AND HR management AND modern world	6,210	100	7
Scopus	artificial intelligence AND recruitment	1,234	50	5
Scopus	artificial intelligence AND talent management	789	50	4
Scopus	artificial intelligence AND HR management AND modern world	512	50	3
Web of Science	artificial intelligence AND recruitment	847	50	4
Web of Science	artificial intelligence AND talent management	621	50	3
Web of Science	artificial intelligence AND HR management AND modern world	398	50	2
ProQuest	artificial intelligence AND recruitment	1,056	50	5
ProQuest	artificial intelligence AND talent management	763	50	4
ProQuest	artificial intelligence AND HR management AND modern world	489	50	3
Total		**41,597**	**900**	**58**
Duplicates				-33
Final				**25**

Results

The following research presents the findings of the relevant studies chosen for the thematic analysis. The analysis revealed two main themes for exploring the report topic that emerged from the data, including the advantages of using AI for recruitment and talent management and the drawbacks and problems of using AI for recruitment and talent management.

Benefits of Using AI for Recruitment and Talent Management

The subject of data collection that came up was AI utilisation for recruitment and talent management, which can be referred to as the advantages and probabilities that AI can bring to these functions. The data obtained through the analysis of different literature, such as research made by Dwivedi et al. (2021) and (Harisha et al., 2023), indicates that AI can enhance the quality, efficiency, effectiveness, and fairness of recruitment and talent management processes through automation, optimisation, and personalisation of the process's functions including sourcing, screening, interviewing.

Also, in the same previous study by Johansson & Herranen (2019), it is demonstrated that AI can be used to enhance recruitment and talent management by identifying the candidates who possess the best skills and qualifications for the job and then allocate them to appropriate positions, tasks, and teams. Another research, in particular, Charlwood (2021), has also established that AI can help recruitment and talent management grow their efficiency by decreasing the time, costs, and effort needed for these functions and by increasing the speed, accuracy, and consistency of the results.

Figure 1: Ways to use AI

Furthermore, the data showed that AI could contribute to the success of not only recruitment and talent management but also to candidates' and employees' performance and engagement, which make them more productive, satisfied, and align with the organisational goals, values, and culture (Rathnayake & Gunawardana, 2023). This result is a shred of evidence that AI can be utilised to improve the fairness of recruitment and talent management by eliminating or greatly reducing human errors, bias, and subjectivity that may affect these functions, and it can provide these functions with a transparent, accountable, and diverse process and decision. Moreover, the data suggested that AI can contribute to the success not only of recruitment and talent management but also of candidates' and employees' performance and engagement by making them more productive and satisfied, which aligns with the organisational goals, values, and culture (Rathnayake & Gunawardana, 2023). This result demonstrates that AI can improve the fairness of recruitment and talent management by excluding or significantly reducing human bias, errors, and subjectivity that may impact these functions and provide them with a transparent, accountable, and diverse process and decision. In other words, the data indicates that AI can bring many benefits to recruitment and talent management, and it can positively impact the organisation's competitiveness, profitability, and sustainability.

Challenges of Using AI for Recruitment and Talent Management

The thorough investigation of the data brings to the surface the negative sides of AI in recruitment and talent management, which means that AI can damage recruitment and talent management processes. The previous studies of qualitative method research have shown that AI can bring some problems and even worsen, which may lead to weaker quality, effectiveness, efficiency, and fairness in recruitment and talent management processes (Renkema, 2022) (Chen et al., 2023). For instance, AI in recruitment and talent management may familiarise and reproduce bias contained in the data and algorithms used (Kelan, 2023), thus leading to discrimination based on certain attributes such as gender, race, age, or disability.

Concerning privacy and security, the findings indicated that artificial intelligence could even create or intensify security and privacy problems in the area of recruitment and talent

management (Kim & Bodie, 2021). Also, as Wylde et al. (2023) note in previous research, by collecting, analysing, and sharing personal data of candidates and employees without their consent, knowledge, or control, AI might also expose them to potential breaches, leaks, or misuse of their data. Therefore, the findings of the research highlighted the fact that AI could add to or even exaggerate the legal and accountability issues in recruitment and talent management by making complex, opaque, and autonomous decisions or actions that can impact the rights, interests, and welfare of the candidates and employees which may raise the question of responsibility, liability or regulation of AI. As a result of the data, it was suggested that AI can bring about some setbacks and challenges for recruitment and talent management and that those setbacks and challenges can erode the trust, confidence, and compliance of the organisation and its stakeholders.

Discussion

The data that was compiled after the processed analysis indicates that AI can improve recruiting and management of workers by referring to the broad range of beneficial features and opportunities that AI can provide for these functions. The study reported that AI could improve the quality, efficacy, effectiveness, and fairness of recruitment and talent management operations through automation, optimisation, and individualisation of these processes across sourcing, screening, interviewing, hiring, training, development, and evaluation of candidates and employees. These results are from previous research and knowledge that show that AI can offer various advantages in recruitment and talent management and, in this way, make organisations more successful, profitable, and sustainable (Nocker & Sena, 2019). Nevertheless, there are no guarantees that AI can benefit recruitment and talent management, and the benefits depend on many factors, including the quantity, quality, and diversity of the data, the design, development, and deployment of the algorithms, and the context, culture, and strategy of the organisation (Faqihi & Miah, 2023). Thus, the study implies that AI should be handled with attention and care by organisations and that they need to be assured that the data and the algorithms are accurate, reliable, and relevant and AI gets integrated, aligned, and adapted with the organisation and its stakeholders. Further ahead, the study has some limitations, which need to be addressed and acknowledged.

Conclusion

This paper was carried out on the use of AI for recruitment and talent management in contemporary times, and its advantages, disadvantages, and difficulties were highlighted. The study applied a secondary qualitative research design, which involved the gathering and analysis of existing qualitative data from past studies on the same issue. In the paper, the study's findings were discussed, and they were compared and contrasted with the existing literature and knowledge on the subject. The paper also focused on the study's implications, limitations, and recommendations. The paper concluded that AI can have a significant and differentiated impact on recruitment and talent management in the current world, and companies need to be strategic and ethical about using AI for these functions, addressing the pros, cons, and challenges along the way. In addition to that, the paper was an addition to the existing literature and knowledge on the theme and revealed the gaps and directions for further research. The report aims to give the results, implications, limitations, and recommendations of this report to organisations and researchers to help them understand and use more AI for recruitment and talent management.

Limitations and Future Research

The report also has a set of limitations that require it to be pointed out and addressed. The downside of the paper is the use of secondary qualitative data that can have some drawbacks

like freshness, reliability, validity, and generalisability of the data, inconvenience of getting, choosing, and analysing the data, and the possible bias, inconsistency, and/or incompleteness of the data. Hence, the following study argues for using primary qualitative data because it is more authentic, valid, reliable, and generalisable and gives more control, flexibility, and creativity in the process of collection and analysis of data. A different limitation of this paper is the focus on the use of AI in recruitment and talent management in the present world, which may have some limitations, like the complexity and dynamism of the topic, the diversity and variability of the sectors, industries, and context, and the uncertainty of the trends, practises and issues. Hence, the paper recommends that the next step for researchers is to investigate other angles of the AI role in recruitment and talent management, such as the historical, theoretical, or comparative perspective, the cross-cultural, cross-industry, or cross-functional view, and the emerging or future scenarios and opportunities.

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