

Unit:

Literature Review

Effect of Artificial Intelligence on Recruitment Processes Globally

Submitted By:

Date:

Introduction

The importance of developing a recruitment process that is effective in utilising artificial intelligence and automation has now become inevitable. Not only are the recruitment processes becoming more complex, but they also require more transparency and operational efficiency. The rapid development of artificial intelligence in the recruitment sector has allowed recruiters to automate processes and helped solve some of their biggest challenges. Artificial intelligence can automate processes and apply predictive analytics to get more insight into people's needs (Tambe, Cappelli and Yakubovich, 2019). The capability for automated decision-making by machines has implications for the recruitment process. With the introduction of automated recruitment processes, there is a need to develop new methods and structures to cater to the needs of job seekers.

This paper will present a literature review on using artificial intelligence in recruitment processes worldwide and how it has affected hiring practices. It explains that there are currently two types of recruiting, targeted and non-targeted, and discusses the role of artificial intelligence in each. Artificial Intelligence, also known as AI or Machine Learning (ML), is a branch of computer science that develops systems that can act and behave intelligently using what humans know about solving problems through computers (Pereira et al., 2021). This paper aims to develop a deeper understanding of the current topic, "Effect of Artificial Intelligence on Recruitment Processes Globally," as it is a significant topic in today's business world. This topic aims to give in-depth information about how people think about Artificial Intelligence (AI) and its importance in recruitment.

A large body of empirical research has been found in the previous studies that show how scholars and researchers have conducted research and presented their analysis. (Allal-Chérif, Aránega and Sánchez, 2021) Cited several examples of how AI technology is used to find

prospective job candidates in the modern-day job market. One of the most significant topics discussed was finding qualified employees from a global workforce. While this may seem impossible for many firms, it has become more of a possibility for some large companies. For example, IBM has made significant strides toward building a global talent pool using human-AI collaboration. The authors, Allal-Chérif et al. (2021), stated that the success in hiring had increased rapidly over the last few years, especially in companies with a large number of vacancies. A machine is predicted to replace human workers in many standard and routine tasks, as evidenced by the rapid development of deep learning methods for computer vision, speech recognition and natural language processing across industries and domains (Allal-Chérif et al., 2021). The basic idea is that deep learning can learn from examples and generalise them to similar situations. The researchers of this study found that by using a machine learning algorithm, they can find out how to identify and select people who will best match the characteristics of a job (Allal-Chérif et al., 2021). Another positive thing about it is that it could help companies reduce hiring costs and other potential issues. For example, it could help in reducing gender bias or racial discrimination.

In another study, Umachandran (2021) showed how artificial intelligence could recruit employees at a manufacturing company. One of the main advantages of using artificial intelligence in recruitment is that employees will know precisely what they will get when they start working at the company. By having an automated process for hiring and training new employees, the researcher has reduced the number of dropouts by 90%. Umachandran (2021) wrote, "The technique of artificial intelligence is widely used in recruitment. Various companies use AI to improve the quality and efficiency of recruitment practices. Thus, many recruiters regularly use AI algorithms for hiring and placement. The process of making selections through this method is fully automated and speedier than the traditional method.

The advantage of AI is that it can perform multiple tasks in the same period compared to humans, who may take longer to perform some specific tasks.

The paper declared that with the help of artificial intelligence, the human recruitment process has to be speeded up (Umachandran, 2021). The paper stated, "In this case, a step-by-step screening process is initiated based on a set of complex strategies developed by artificial intelligence (AI) engines", and so on. The article details how to use artificial intelligence to recruit company employees (Umachandran, 2021). The researcher used a system that applies AI (artificial intelligence) in analysing data from past employment dates and applying the probability of performing well in their positions based on those data points, then compiling a list of top participants for future consideration for promotion or hiring.

The objectives of (Chanda, 2019) were to determine how Artificial Intelligence (AI) can be used in the recruitment, selection, screening, and retention of employees in the Irish market, given the global market. Therefore, by providing evidence-based information, this research will help better understand how AI can play a crucial role in human resource management decisions. Chanda (2019) found that recruitment, selection, screening, and retention are subject to input from multiple sources and measures. The role of AI in recruitment has been examined by a study which indicates that AI is an effective way to screen potential candidates for realistic suitability. According to Chanda (2019), significant disparities exist in the recruitment and selection processes across industries. The market has been facing an increasing demand for highly skilled candidates such as artificial intelligence, information technology and data science professionals who can help businesses navigate through big data and transform their business models through these techniques (Chanda, 2019). However, this does not mean that AI will be an easy way for organisations to increase

their hiring pool, as more than half of all consulting firms implementing AI software use it as a primary selection criterion.

Hmoud and Laszlo (2019) stated that AI might be more important to companies in the next decade. According to the article, almost 75% of large organisations will use AI platforms in recruitment by 2022. This method means they will first use AI techniques to analyse submitted CVs before forwarding them to human recruiters for final candidate decision-making. In the article, Hmoud and Laszlo (2019) stated that machines would have some role in HR retention and recruitment. They have identified four areas in which AI can assist HR professionals: analysing data from resumes, conducting recruiting job searches, sourcing candidates from job boards and social networks, and making hiring decisions based on employee data (Hmoud & Laszlo, 2019). However, they also warn that there are still significant challenges in implementing these automated systems due to privacy concerns, bias in AI algorithms, misconceptions about Machine-Learning algorithms and underutilisation of technology by HR professionals. This study addressed an industry-wide problem regarding the future of human resources recruitment and selection (Hmoud & Laszlo, 2019). The authors used a unique case study of the architecture & engineering industry to review current human resource management practices, introduce artificial intelligence (AI) where applicable, and discuss the future implications of AI in this profession.

In another paper, Budhwar et al. (2022) discussed how artificial intelligence and machine learning are changing the role of international HRM departments and how this affects organisations worldwide. The authors argued that as AI-based software becomes more sophisticated and capable of analysing various human resource management practices, it can automate much more of the HRM process, potentially replacing many roles in recruitment, assessment, and training (Budhwar et al., 2022). The scope of the review has been narrowed

to explore potential challenges and opportunities for international HRM in the context of artificial intelligence (AI). The study is mainly based on literature in leading journals and other publications. It also incorporated findings from a survey of a substantial number of respondents with expertise in international human resource management (IHRM) in their organisations (Budhwar et al., 2022). The results indicated that the most significant challenges are the need for adequate framework, methodology and tools, gaps in their field expertise, and partnerships with other disciplines already involved with AI research. The study aimed to discuss challenges, opportunities and the future of artificial intelligence (AI) in human resources management.

Malik et al. (2021) found a significant positive effect of using AI to share knowledge with employees. Specifically, they found that those who received a new knowledge-sharing assignment in the form of an AI-based platform improved their performance by 10.5 per cent more than those who did not have access to the AI-based platform (Malik et al., 2022). The study investigated how innovative AI-mediated knowledge sharing improves talent experience through enhanced innovation capabilities. The findings indicated that increased employee engagement, improved organisational performance and enhanced innovation capabilities are benefits of AI-powered knowledge sharing. The article by Cavaliere et al. (2021) provided evidence on the impact of e-recruitment and AI tools on HR effectiveness across different categories of schools in the U.S. This article examined the potential implications of e-recruitment and artificial intelligence (AI) tools on human resource effectiveness (Cavaliere et al., 2021). The authors noted that efforts to overcome the challenges associated with recruitment and selection could be made easier with AI applications. Artificial intelligence is developed to solve problems HR professionals face, such as recruiting the best talent for the organisation and using them in business operations efficiently (Alam et al., 2020). It saves

time on task execution and also, at the same time, reduces its costs, like human errors. It eliminates errors due to a lack of skills and experience, thus making sure that each job is performed accurately and effectively (Siegmann & Anderljung, 2022).

According to (Basu et al., 2022), existing theories or models often do not adequately explain the impact of artificial intelligence on HR management practices, their complexities and the complexities related to their application in the HR field. (Feijóo et al., 2020) Discussed that to overcome this barrier, there is an alternative way to examine the effects of AI on HR management practices through case studies, which they have followed in various organisations. Jia et al. (2018) proposed a conceptual artificial intelligence application framework in human resource management that can be applied as a new paradigm. The authors formulated an innovative artificial intelligence application framework for human resource management called the Human Resource System (HRS) (Jia et al., 2018). Artificial Intelligence (AI) is growing exponentially, with billions of dollars invested yearly into new AI technologies (Pereira et al., 2021). However, the job market has not kept up with these advancements. AI may affect the workplace unfavourably, such as increased unemployment, lower wages, and job loss. The article provided a systematic literature review of the impact of artificial intelligence on workplace outcomes. The results showed a need to understand how AI systems can significantly improve employees' performance, as well as their roles and job responsibilities, through automating cognitive tasks and giving them a chance to use their creative and strategic skills (Alam et al., 2020). Renkema (2022) started by examining the existing risks associated with AI, including that the technology will make workers unemployable and lead to more automation, displacing more people from the workforce. The authors argued that as artificial intelligence develops, it will be used for more purposes than simply finding specific employees and fostering efficient work practices (Renkema, 2022).

They argued that corporate boards should consider the negative social impacts of changing technologies before implementing AI in their organisations.

The study by Qamar (2021) on the interplay of artificial intelligence and human resource management reveals that if people are seen as data, it is easy for non-professional artificial intelligence to process and make decisions. If people are considered humans and not just data, technology will feel people's emotions and desires and adjust accordingly (Qamar et al., 2021). Artificial intelligence is a process that involves the creation of a machine that possesses higher intellectual ability than humans (Vrontis et al., 2022). The research carried out in this study focused on its role in human resource management. The author showed how artificial intelligence could help solve issues like skill shortage, organisation alignment, etc. (Yawalkar, 2019). In their paper, Chowdhury et al. (2022) examined several emerging trends, including the expanding scope of AI, advancing technologies, and many other topics that can help us grow a greater understanding of different application areas. Their analysis concluded that the future holds great potential for collaboration with AI technology in human resource management systems (Chowdhury et al., 2022). They proposed a framework encompassing four key capabilities in such systems: functional object recognition, cognitive task synthesis, comprehension generalisation and reasoning. Devyania et al. (2020) revealed a significant improvement in the Chinese government's decision-making process. AI is expected to help them achieve their goals efficiently and rapidly (Devyania et al., 2020). Artificial intelligence is gradually replacing humans in several aspects of our daily lives. Artificial intelligence can help automate critical tasks in the healthcare sector, such as diagnosing patients and analysing claims information. It helps ensure cost containment and increase efficiency, significantly impacting financial performance.

Based on the findings of the existing literature, it is noted that authors have significantly contributed to the field of Artificial Intelligence and its impact on Human Resource Management. The purpose of the current study is also to contribute to this area; therefore, analysing these empirical studies will help me carry out my research. Moreover, this study will also be helpful for future researchers who wish to explore this area.

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