International Journal Administration, Business & Organization
Vol. 6 (3), 2025: 352-364 | E-ISSN 2721-5652
Available at https://ijabo.a3i.or.id/index.php/ijabo

Adoption of Artificial Intelligence Technology in Human Resource Management in Digital Office Management

Marcha Dwi Yuliana[1*]
Business Administration
Bandung State Polytechnic,
Bandung, Indonesia
marcha.dwi.abs24@polban.ac.id

Febri Mardianti[2]
Business Administration
Bandung State Polytechnic,
Bandung, Indonesia
febri.mardianti.abs24@polban.ac.id

ABSTRACT

The objective of this research is to examine the impact of integrating Artificial Intelligence (AI) on the effectiveness of Human Resource Management (HRM) within a digital office workplace. The study reveals that AI enhances the efficiency, accuracy, and fairness of numerous HR operations, especially recruitment, performance evaluation, and staff development. This research employs a qualitative descriptive approach using a systematic literature review to synthesize relevant scholarly findings on AI adoption in HRM within digital office environments. Furthermore, the implementation of digital technologies promotes enhanced communication, faster information flow, and a collaborative and inventive working environment. Despite these benefits, challenges remain, such as data privacy issues, cybersecurity threats, employees' insufficient digital literacy, and resistance to technological innovation. Successful AI implementation in human resource management requires a holistic strategy encompassing technological readiness, enhancement of employees' digital competencies, adherence to ethical standards, and an adaptable organizational culture. This approach allows organizations to develop flexible, sustainable, and effective office management systems that preserve a competitive edge amidst ongoing digital transformation.

Keywords: Artificial Intelligence; Human Resource Management; Digitalization; Office Management; Organizational Effectiveness

Received: 18 November 2025
Accepted: 08 December 2025
Available online: 26 December 2025

DOI: 10.61242/ijabo.25.621

JEL Classifications: M12, M14

INTRODUCTION

Innovation has emerged as a crucial element in attaining sustainability and gaining a competitive edge for companies. A company's capacity for innovation is not just an opportunity in the face of intensifying global competition but also a challenge that requires a strategic response through appropriate entrepreneurial actions (Chaniago, 2020). One of the most influential forms of innovation today is the advancement of AI technology, which has significantly impacted numerous areas and sectors, particularly in the way companies manage their human resources.

In today's digital era, AI is becoming a vital component of the digital revolution process due to its ability to automate work, perform rapid data analyze, and improve organizational efficiency and performance (Dwivedi *et al.*, 2021). The implementation of artificial intelligence in HR management has become a crucial element driving the transformation of how contemporary organizations oversee their workforces, spanning from recruitment and employee selection procedures to performance evaluations. These entire processes can now be carried out more effectively thanks to the support of technology and data-driven analyze (Budhwar *et al.*, 2022). Increasingly, organizations are adopting AI due to its capacity to optimize administrative tasks and support more accurate decision-making, thereby promoting improved overall organizational performance (Malik *et al.*, 2023).

Driven by the momentum of digital transformation, the process of digitalization has significantly improved the management of office operations. Technology enables the automation of everyday tasks, including document management, communication, and collaboration. Furthermore, cloud computing technology has fundamentally changed the way organizations store and access information. Cloud computing provides easy access to data from multiple locations with a stable internet connection, simplifying IT infrastructure and organizational management (Tabrizchi & Kuchaki Rafsanjani, 2020). This capability is instrumental in supporting remote work situations, where organizational resources can be accessed by employees from anywhere, increasing flexibility and productivity (Golightly *et al.*, 2022). Adopting cloud computing allows organizations to enhance workforce mobility and facilitate cross-geographical collaboration, without being limited by physical office locations.

Advancements in artificial intelligence (AI) have opened new possibilities in the workplace, particularly in training and developing employees, as these programs can now be customized to meet the specific needs of each individual. AI technology is capable of evaluating employee performance, identifying skill deficiencies, and offering the most appropriate training recommendations through efficient, automated systems (Malik *et al.*, 2022). In this way, organizations can maximize investments in development of human resources and improve the success of training programs. Furthermore, the incorporation of artificial intelligence (AI) into performance management has revolutionized the methods organizations use to assess employees and provide feedback. AI-based systems can collect and analyze performance data directly, resulting in more objective and accurate evaluations of each individual's contribution. These results enable managers to make better decisions regarding promotions, compensation, and career development planning.

Despite these benefits, successful AI adoption depends not only on the technology`s readiness but also on the level of human resource capability in understanding, managing, and optimally utilizing the technology. Implementing AI in human resource management requires changes to both organizational structure and work culture. Charlwood & Guenole (2022) emphasize the importance of increasing AI literacy among employees and HR professionals in general. This involves not only understanding how AI technology functions but also being able to collaborate with AI systems and accurately interpret their results effectively. The importance of digital skills continues to grow as advancements in digital technology progress. Currently, mastery of technological

 DOI: https://doi.org/10.61242/ijabo.25.621

capabilities is crucial, encompassing an understanding of digital systems, proficiency in operating technological devices, and the ability to analyze data effectively. Organizations must provide comprehensive training programs that guarantee employees acquire the essential competencies to navigate the challenges of the digital era.

Protecting employee data security and privacy is a crucial aspect of incorporating AI into operations and digitization processes in human resource management (Putri & Efawati, 2025). Concerns regarding the storage and potential misuse of personal information are growing as AI is frequently used to analyze vast volumes of employee data (García-Martínez *et al.*, 2023). Similarly, Böhmer & Schinnenburg (2023) emphasize that the implementation of AI technology in HRM carries significant data security and privacy risks. These risks primarily relate to over-reliance on technology and the potential for data breaches, which can compromise both the organization's and employees' personal data. To address these concerns, companies must establish comprehensive data protection policies and procedures, strengthen digital security systems, and raise employee awareness of the importance of maintaining information confidentiality while optimizing the effective and responsible use of AI.

However, the success of AI adoption is not only determined by the readiness of the technology itself, but also by the competence of Human Resources (HR) in understanding, managing, and optimizing its use. Therefore, for organizations to adapt to digital transformation, human resources must have the ability to identify new skills, develop competency development programs, and support organizational cultural change (Nagel, 2020). Furthermore, both employees and organizational leaders need to adapt to the ever-evolving digitalization process (Efawati, 2024). Although remote work offers various advantages, Adriansyah *et al.* (2022) emphasize that management must maintain an emotional connection between employees and the company, as well as ensure the availability of necessary resources for optimal performance. Digitalization has brought about significant transformations in workplaces, particularly in office management. Digital technologies have been proven to enhance efficiency, productivity, and operational flexibility. Nevertheless, these advancements come with new challenges, such as concerns over data security and the necessity for employees to adjust to emerging technologies. Consequently, deploying digital technologies must be done thoughtfully and strategically. Given these factors, this article aims to explore how Artificial Intelligence (AI) applications can enhance the effectiveness of human resource management within digital office settings, ultimately enabling organizations to achieve enduring strategic benefits during the global shift toward digitalization.

LITERATURE REVIEW

Artificial Intelligence (AI) is a field within computer science committed to developing systems capable of replicating human cognitive functions, including decision-making, data analyze, pattern recognition, and communication with people through natural language (Collins *et al.*, 2021). In the context of human resource (HR) management, AI tools are utilized to optimize recruitment, assess employee performance, and deliver development programs that imitate human abilities, eventually improving efficacy and efficiency (Collins *et al.*, 2021).

Implementation of AI in Human Resource Practices

AI technology is already widely used in human resource management activities, from hiring and selection, through employee competency growth, productivity monitoring, and hiring. A 2021 study found that 71% of organizations worldwide have implemented AI in at least one aspect of their human resource management (Isa Anshori & Safrizal, 2024).

 DOI: https://doi.org/10.61242/ijabo.25.621

The use of Artificial Intelligence (AI) in human resource management (HRM) covers eight major areas, including workforce planning, competence development and job analyze, hiring and selection, and retaining high-potential employees, training and professional growth, performance assessment, payroll management, and employee health and safety oversight (Cavanagh *et al.*, 2024). Implementing AI in HRM practices results in a dynamic interaction between humans and technology, positively impacting both the individual and organizational levels. This reciprocal relationship between AI implementation and HRM practices contributes to significantly improved operational efficiency and work effectiveness (Basu *et al.*, 2023). Artificial intelligence (AI) based technology exerts a substantial influence on human resource management by increasing employee engagement and retention through personalized training programs tailored to each individual's needs. Furthermore, the deployment of AI contributes to reinforcing the principle of diversity, equality, and inclusion by minimizing bias in the recruitment process and performance assessment.

AI technologies in HR, such as AI-powered applicant tracking systems and predictive analytics, are making recruitment processes more efficient and improving candidate selection, thereby accelerating talent acquisition and more productive management (Votto *et al.*, 2021). AI-driven tools also manage routine assignments, allowing HR professionals to focus on strategic planning and creating a data-driven, employee-focused workplace (Komajwar, 2025). By leveraging AI, organizations can cultivate an inclusive work culture where diversity drives innovation and generates economic benefits, ultimately contributing to a more favorable future of work for both employees and the organization as a whole (Batra *et al.*, 2025).

Benefits of Implementing AI in Human Resources

The implementation of Artificial Intelligence (AI) in strategic decision-making has been shown to enhance the efficiency, effectiveness, and overall quality of decisions (Heliana & Wahyuni, 2024). AI has notably influenced human resource systems by streamlining processes to be faster and more precise. By outsourcing tasks such as curriculum vitae (CV) screening and analyzing large datasets, AI improves both the speed and accuracy of recruitment and selection procedures. Furthermore, natural language processing (NLP) enables AI to engage with candidates in a more personalized manner, thereby reducing subjective bias and facilitating more objective decision-making (Norman & Pahlawati, 2024). These capabilities enable AI to expedite the recruitment process by quickly reviewing applications, allowing HR practitioners to focus on the most qualified candidates.

Additionally, AI helps understand employee needs by analyzing data from social media (Kuzniarska & Stanczyk, 2024). AI also supports talent discovery, optimizes work time, and increases productivity, but remains an intelligent assistant, not a replacement for human work (Massoud *et al.*, 2024). In performance management, AI offers real-time feedback and predictive analytics, enabling the identification of high performers and areas that need improvement (Gowthami, 2025). AI-powered training systems can be tailored to individual needs, thus enhancing employee development and engagement (Kuzniarska & Stanczyk, 2024). Furthermore, AI provides data-driven insights to aid informed managerial decisions, allowing HR specialists to dedicate attention to personal interactions and building more engaged teams (Saranya *et al.*, 2025).

Through effective implementation, organizations can create a more adaptive, innovative, and data-driven work environment by utilizing this technology. Amidst increasingly complex and rapidly changing business dynamics, the use of this technology can increase productivity while strengthening a company's competitive position.

 DOI: https://doi.org/10.61242/ijabo.25.621

Human Resource Management (HRM)

Human Resource Management (HRM) is a strategic process focused on optimally managing, developing, and utilizing the workforce to achieve organizational goals. This process encompasses activities such as recruitment, training, competency development, and offering rewards or incentives to enhance employee productivity and well-being. Furthermore, according to Zhang & Chen (2024) digital HRM transformation not only transforms conventional management methods but also strategically contributes to improving employee competency, enhancing the organization's ability to adapt, and fostering a culture of innovation necessary to respond to changes in the digital era. By utilizing digital technology in HRM operations such as selection, training and development, and performance appraisals, companies can build a more flexible, talented, and responsive workforce to changes in the business environment.

The effectiveness of human resource management (HRM) as a supporting factor in achieving an organization's vision and mission depends heavily on the alignment between HR strategy and overall business strategy. Ulrich *et al.* (2024) assert that the primary objective of human resource management (HRM) is to guarantee the organization has the support of skilled professionals whose abilities align with its strategic requirements.

Human Resource Challenges in the Technology Era

Despite its numerous advantages, AI implementation also faces several challenges. The use of algorithms in decision-making presents problems in the form of a lack of transparency and accountability, both in terms of input data, algorithm mechanisms, and variables that influence system output. This situation has the potential to lead to discriminatory practices, particularly against female candidates in the recruitment process. Tursunbayeva *et al.* (2021) also emphasized that ethical issues, data privacy, and information security are key concerns when adopting AI in the HR context. Implementing AI in HR requires strict policies regarding privacy and data protection. Employee trust in AI systems is a critical factor influencing the successful adoption of this technology within an organization.

Mwita & Kitole (2025) added that the adoption of AI in HR management presents multiple significant challenges. The main challenges identified include insufficient technical skills, issues regarding information confidentiality, elevated implementation expenses, and employee reluctance toward technological adoption. Their research in Tanzanian public institutions revealed that, although most respondents agreed that AI could enhance recruitment, training, and performance management processes, concerns persisted regarding algorithmic bias and the AI's limited emotional intelligence. Therefore, HR needs to play an active role in improving digital literacy and preparing the workforce to adapt to AI-based work systems.

Furthermore, AI ethics is a key issue receiving attention. According to Triono & Wijaya (2025), the successful adoption of AI in HR must be supported by an ethical framework that ensures transparency, accountability, and human oversight of algorithm-based decisions.

Definition of Office Management

As with other terms in the social sciences, experts do not always agree on the exact definition. This also applies to office management. Saifuddin & Putra (2021) cite several expert definitions of office management, as follows:

1. George Terry stated that office management is a series of planning, organizing, and supervising various tasks in the office, while also directing the individuals involved to achieve results according to predetermined goals. In addition, office

 DOI: https://doi.org/10.61242/ijabo.25.621

management also includes managing the life cycle of company information, from creation and maintenance to distribution, storage, and destruction, depending on the value and relevance of the information.

2. William Leffingwell and Edwin Robinson define office management as a function and part of the art and science of management. This function emphasizes the effective and efficient execution of office tasks, without being limited by time or place.
3. According to Geoffrey Mills, office management involves guiding staff to utilize available facilities optimally, taking into account working conditions, to achieve predetermined targets.

Thus, office management can be understood as the effort to manage various resources, both natural and human, as well as all activities and tasks within the office environment, efficiently and effectively. This process is implemented to guarantee the attainment of organizational objectives through various office activities that contribute to the provision of relevant and valuable information.

Changes in Modern Office Management

Advances in digital technology have profoundly transformed the way companies are managed. Administrative activities that were once performed manually have now been transformed into more efficient systems enabled by digital technology. The use of digital tools and platforms not only facilitates document management and communication among employees but also enhances collaboration between divisions, enabling work to be completed more efficiently and in a coordinated manner. According to Calderón-Monge & Ribeiro-Soriano (2023), digitalization in the context of business and management leads to fundamental changes in organizational structures and work methods, including in office management. This provides efficiency, transparency, and increased productivity through process automation and the integration of information systems.

Various digital innovations, including cloud computing, big data analytics, and project management software, have enabled companies to manage information more efficiently and effectively. According to (Tabrizchi & Kuchaki Rafsanjani, 2020), utilizing these technologies enables immediate access to information, facilitating more efficient decision-making and a higher degree of accuracy. Furthermore, the use of blockchain and AI in office management is vital for ensuring data security while increasing workflow automation. The adoption of digital technology has transformed the way we work, including the rise of remote work. According to Adriansyah *et al.* (2022), digital technology enables businesses to manage employees more effectively by providing online performance monitoring systems, project management software, and virtual communication platforms. Companies can maintain productivity even in situations like the COVID-19 pandemic, which has prompted many organizations to implement remote work systems due to the convenience and flexibility they offer.

In its implementation, digital-based office management faces several challenges, particularly those related to data security and privacy. Böhmer & Schinnenburg (2023) revealed that cyberattacks are a major obstacle to digital transformation in the office. Therefore, companies must implement robust security protocols and develop systems that can effectively safeguard personal data.

Digital Transformation in Office Management

Digital transformation entails the integration of digital technologies across all aspects of office management to enhance organizational efficiency, accuracy, and competitiveness. In the modern era, this change extends beyond the simple use of digital devices and systems to shifts in work culture and more flexible management patterns. Digital

 DOI: https://doi.org/10.61242/ijabo.25.621

transformation requires comprehensive adaptation of technology, human resources, and organizational structure to optimize innovation and collaboration. Rapid technological advancements are forcing organizations to adapt their strategies and operational models. Kraus *et al.* (2021) note that digitalization accelerates administrative processes and internal communications while changing expectations for productivity and responsiveness. In the office context, this change is evident in the use of project management software, cloud storage systems, and collaborative platforms that enable effective remote coordination.

Beyond technological factors, leaders are essential in steering successful digital transformation initiatives. Hanelt *et al.* (2021) explain that digital leaders must cultivate a culture of innovation and readiness for change throughout the entire organization. Supporting employee training and providing digital infrastructure are crucial steps in maintaining a balance between efficiency and employee well-being. The use of technologies like artificial intelligence and data analytics also improves office management effectiveness. Rêgo *et al.* (2021) suggest that data-driven automation and analytics systems can facilitate faster, more measurable decision-making. However, increased reliance on technology poses new challenges to information security and data protection. Therefore, organizations need to implement adaptive digital security policies and develop human resource competencies to operate securely in a technology-based work environment.

Related Research

Several previous studies have been conducted to review Human Resource Management (HRM) systems. Several studies have discussed increasing innovation through effective HR management practices (Adula *et al.*, 2022), strengthening managerial capabilities through artificial intelligence (AI) (Qamar *et al.*, 2021), the use of data mining in employee analyze (Jiang, 2022) and the application of cloud computing technology to support digital HR processes (Zhao & Rabiei, 2023). However, these studies also have limitations, which are explained further in Table 1.

(Adula *et al.*, 2022) make a significant contribution by explaining how the implementation of HRM promotes innovation within the workplace (Efawati, 2023). Furthermore, Qamar *et al.* (2021) Report That Research examining technological innovations indicates that AI can potentially improve managerial capabilities and organizational growth. Similarly, Zhao & Rabiei (2023) and Maqueira Marín *et al.* (2022) discuss cloud computing applications for enhancing HR productivity, and Jiang (2022) focuses on the contribution of data mining to strategic HR decision-making.

Table 1. Previous related research

Reference	Objective	Limitations
(Adula *et al.*, 2022)	Determine the HRM practices that most effectively enhance innovative work behavior (IWB) and examine the theoretical foundations that explain how HRM practices influence IWB.	Limited its focus to HRM practices that boosted IWB, excluding other HRM aspects.
(Qamar *et al.*, 2021)	Highlight the most advanced AI applications in human resource management, encompassing the enhancement of managerial skills and organizational growth.	Confined to AI-driven HRM practices, excluding the use of other technological tools.
(Jiang, 2022)	Support strategic decision-making in human resource management.	Focused exclusively on data mining in HRM, excluding other data analyze techniques.

 DOI: https://doi.org/10.61242/ijabo.25.621

(Zhao & Rabiei, 2023)	Assess the practicality of adopting a cloud-based HR payroll system and examine its impact on HR productivity.	Concentrated on cloud-based payroll systems without covering other aspects of cloud-based HRM.
(Maqueira Marín *et al.*, 2022)	Research on cloud computing in HRM can be categorized into four areas: the creation of cloud platforms for HRM, the flexibility of human resources, the adoption and deployment of cloud-based HRM platforms, and the effects and implications of using cloud platforms in HRM. implications of using cloud platforms in HRM.	Limited to scientific articles within two databases, potentially overlooking some pertinent research.

Source: Own Compilation (2025)

RESEARCH METHOD

This research employed a qualitative descriptive method, gathering data via a literature review, using a Systematic Literature Review (SLR) approach, a systematic approach used to collect, review, integrate, and summarize findings from various studies relevant to the study's focus or objectives (Abdussamad, 2021). The research process began with searching for and identifying articles related to the research topic. Next, the researcher selected high-quality studies relevant to the issues and themes being analyzed. The literature review was conducted through several leading academic databases, including Scopus, Sinta, and Google Scholar, utilizing a combination of appropriate and relevant keywords, such as "Human Resource Management," "Digitalization," "Office Management," "Artificial Intelligence," and other related terms. The publication period was limited to articles published from 2020 to 2025.

In the initial stage, the researcher successfully identified 30 articles related to the theme "Adoption of Artificial Intelligence Technology in Human Resource Management in Digital Office Management". After going through a screening process, 20 selected articles were obtained that met the research criteria, namely: (1) the article has gone through a peer-review process; (2) published in the period 2020 to 2025; and (3) discussing the influence or role of AI on employee performance. To provide an overview of the approach and steps applied in this study, the following is a flowchart showing the exclusion and inclusion processes carried out at the Systematic Review stage:

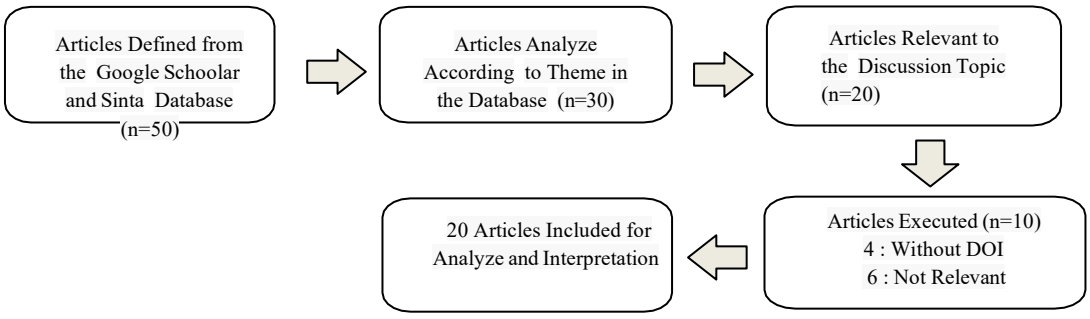

Figure 1. Flow Diagram of Systematic Literature Review
Source: Own Compilation, 2025

DISCUSSION

The Application of AI in Human Resource Functions in the Digital Era

The use of AI in organizational digital transformation aligns with the concept of digitalization proposed by Chaniago (2023), which emphasizes that digitalization involves

 DOI: https://doi.org/10.61242/ijabo.25.621

the application of information technology, digital devices, and software to enhance the speed and flexibility of a company's organizational processes. Therefore, digital components play a strategic role in accelerating the achievement of company targets through efficiency and innovation in work processes. In the recruitment phase, implementing artificial intelligence (AI) based systems allows companies to quickly and objectively screen thousands of applications by analyzing data patterns from candidate histories. Utilizing AI in this process helps automate various routine tasks, such as screening resumes, matching candidate profiles to job criteria, and scheduling interviews. This automation has been demonstrated to save time and effort compared to manual processes, while also increasing recruitment efficiency by up to 30% (Ore & Sposato, 2022). Additionally, in the realm of human resource development, AI provides training recommendations tailored to the results of performance evaluations and an individual's potential (Malik *et al.*, 2022).

Real-time reports help managers measure employee productivity more accurately (Votto *et al.*, 2021). AI-powered performance management systems are capable of objectively analyzing data using measurable metrics, thereby reducing subjective bias, ensuring fair assessments, and providing real-time and continuous feedback to encourage continuous performance improvement (Nyathani, 2023). In general, the implementation of AI can increase the efficiency of HR activities and improve operational performance in digital office environments by promoting a more data-driven, objective, and flexible workplace.

The Impact of AI Adoption on Human Resource Management Effectiveness

The application of Artificial Intelligence (AI) technology has significantly improved the efficiency of HRM in digital office environments. Through AI based systems, various processes that previously required time and human effort, such as candidate selection, performance assessment, and work schedule management, can be automated. This automation process not only speeds up administrative tasks but also enhances the precision and impartiality of decisions based on data. Heliana & Wahyuni (2024) state that the implementation of artificial intelligence (AI) encourages organizations to build more flexible and innovative work environments. By utilizing predictive analytics and AI-based recommendation systems, management can identify employee potential, measure job satisfaction levels, and develop more targeted career development strategies. This approach enables human resource management to be more strategic and focused on enhancing long-term performance (Nurain et al., 2024). Implementing AI in HR management is crucial for improving operational efficiency, particularly by streamlining work processes and optimizing the utilization of available labor. Furthermore, the implementation of AI-based digital work systems can increase employee satisfaction, strengthen collaboration between teams, and foster a creative and data-driven work culture. Therefore, the use of AI not only helps optimize company productivity but also strengthens organizational competitiveness in the digital era.

Challenges of AI Implementation in Digital Human Resources

Despite its numerous benefits, the application of Artificial Intelligence in digital HR management (HRM) still faces a variety of complex challenges. Employee privacy and data protection are crucial issues, given that artificial intelligence platforms process large amounts of personal information for performance analyze (Böhmer & Schinnenburg, 2023). As digitalization in the office environment increases, so do cyber threats, necessitating the implementation of comprehensive security policies and robust data protection systems. Mwita & Kitole (2025) emphasize that security challenges are not merely technical but also relate to the organization's moral and ethical responsibility to ensure data is used transparently, fairly, and without violating individual privacy rights.

 DOI: https://doi.org/10.61242/ijabo.25.621

Furthermore, from a human resources perspective, low digital literacy and resistance to change are the primary factors inhibiting AI adoption. This aligns with the findings of Lutfi & Mohammadi (2025), who stated that limited digital competency and a lack of understanding of AI's potential prevent some employees from optimizing its use. In some organizations, concerns that AI will replace humans also create psychological barriers to innovation. Therefore, this technology should be viewed as a strategic tool that improves productivity and decision-making accuracy, rather than as a threat to the sustainability of the human workforce. In this context, psychological readiness, an organizational culture that demonstrates adaptability to innovation, and the application of ethical principles are crucial components for effective AI implementation and alignment with organizational values and goals (Triono & Wijaya, 2025).

AI Adoption Optimization Strategy in HR

To effectively adopt Artificial Intelligence (AI) in HR management, organizations must implement a comprehensive and sustainable strategy. First, improving digital literacy among employees is crucial for their ability to master and collaborate effectively with AI-based systems (Charlwood & Guenole, 2022). Second, ethical and transparent policies are needed to ensure that every decision made by AI remains grounded in humanitarian values and accountability (Triono & Wijaya, 2025). Third, organizations must establish a robust technological infrastructure and a reliable cybersecurity system to protect employee personal data (Böhmer & Schinnenburg, 2023). Fourth, HR management needs to play an active role in developing AI-based training programs tailored to individual needs (Malik *et al.*, 2022), and fostering a digital work culture that is adaptive to change (Nagel, 2020).

Furthermore, organizations need to strengthen their change management processes to ensure all employees understand the advantages and objectives of AI adoption, thereby minimizing potential resistance to new technology. The active role of line managers and top leaders is also crucial in building trust and ensuring that AI integration aligns with established HR policies (Bodie & Alimardani, 2023). In this context, Chaniago (2022) emphasized that leadership-led innovation tailored to the capacities and capabilities of subordinates will accelerate the effective implementation of such innovations. This suggests that the effective implementation of AI relies significantly on an adaptive leadership approach that considers the team's readiness and competency in facing technological change. Adopting a human-focused AI strategy is crucial to guarantee that technology improves the analytical and decision-making capabilities of HR professionals, rather than replacing them (Rahwan & Larson, 2022; Efawati, 2020). With this synergy between humans and machines, performance management, recruitment, and employee development can be carried out more objectively, efficiently, and precisely. Organizations are also advised to regularly review and monitor the assess the performance of their implemented AI systems. This evaluation serves to assess the system's effectiveness, detect potential algorithmic bias, and ensure compliance with internal policies and employment regulations. With a consistent oversight mechanism, AI implementation can have a positive impact not only on efficiency and productivity but also on increasing organizational competitiveness and sustainability in the digital workplace. By implementing this strategy, organizations can maximize applying AI to improve efficiency and productivity, while also establishing a lasting competitive edge in the era of digital office management.

CONCLUSIONS

This study focused on how the use of Artificial Intelligence (AI) in human resource management within digital office settings enhances the effectiveness of HR tasks and the organization's overall performance. The findings show that AI helps make HR processes

 DOI: https://doi.org/10.61242/ijabo.25.621

more efficient, accurate, and fair, while also bringing up new issues such as data security, ethical concerns, and the level of digital preparedness among employees. The use of Artificial Intelligence (AI) in managing human resources and digital office administration has markedly improved organizational efficiency, accuracy, and overall effectiveness. AI facilitates automation in essential HR processes including recruitment, employee evaluation, and career progression, thereby promoting more data-informed and uniform decision-making. The adoption of digital technologies further expedites the dissemination of information, enhances interdepartmental collaboration, and fosters a workplace culture that is flexible, cooperative, and innovative. This study has several limitations, including the rapid advancement of AI technologies that may render the current findings less relevant, issues involving data protection and security, and differing degrees of digital literacy across organizations. The reliance on secondary data, as determined through a literature review, additionally restricts the broader applicability of the findings. Future research should concentrate on empirical assessments within various organizational settings, investigate strategies to overcome resistance to AI implementation, and evaluate the lasting influence on employee welfare and company culture. Organizations seeking to maximize the advantages of AI must develop comprehensive strategies that encompass digital skills development, ethical governance, and robust data protection to ensure that AI serves as a vital facilitator of efficient, innovative, and sustainable office management in the digital age.

REFERENCES

Abdussamad, Z. (2021). *Qualitative Research Methods* (P. Rapanna, Ed.). CV. Syakir Media Press.

Adriansyah, M. A., Apriliana, F., Nadzifah, E. R., Febrianti, A. A. A., & Pramesti, S. A. A. (2022). Overview of work engagement with remote workers. *International Journal of Social Science and Business, 7*(1), 124–130. https://doi.org/10.23887/ijssb.v7i1.51383

Adula, M., Kant, S., & Birbirsa, Z. A. (2022). Systematic literature review on human resource management effect on organizational performance. *Annals of Human Resource Management Research, 2*(2), 131–146. https://doi.org/10.35912/ahrmr.v2i2.1418

Basu, S., Majumdar, B., Mukherjee, K., Munjal, S., & Palaksha, C. (2023). Artificial intelligence–HRM interactions and outcomes: A systematic review and causal configurational explanation. *Human Resource Management Review, 33*(1), 100893. https://doi.org/10.1016/j.hrmr.2022.100893

Batra, J., Kumar, D., Kautish, S., & Kumar, A. (2025). AI solutions for inclusive organizational culture and business benefits. *Advances in Human Resources Management and Organizational Development Book Series*, 1–34. https://doi.org/10.4018/979-8-3693-3960-2.ch001

Bodie, G. D., & Alimardani, M. (2023). Responsible artificial intelligence in human resources management. *AI and Ethics, 5*(3), 417–429. https://doi.org/10.1007/s43681-023-00325-1

Böhmer, N., & Schinnenburg, H. (2023). Critical exploration of AI-driven HRM to build up organizational capabilities. *Employee Relations: The International Journal, 45*(5), 1057–1082. https://doi.org/10.1108/ER-04-2022-0202

Budhwar, P., Malik, A., De Silva, M. T. T., & Thevisuthan, P. (2022). Artificial intelligence – challenges and opportunities for international HRM: A review and research agenda. *The International Journal of Human Resource Management, 33*(6), 1065–1097. https://doi.org/10.1080/09585192.2022.2035161

Calderón-Monge, E., & Ribeiro-Soriano, D. (2023). The role of digitalization in business and management: A systematic literature review. *Review of Managerial Science, 18*, 449–491. https://doi.org/10.1007/s11846-023-00647-8

Cavanagh, J., Pariona-Cabrera, P., & Halvorsen, B. (2024). The Effects of Artificial Intelligence on Human Resource Activities and the Roles of the Human Resource Triad: Opportunities and Challenges. *Frontiers in Psychology, 15*, 1360401. https://doi.org/10.3389/fpsyg.2024.1360401

Chaniago, H. (2020). The Effects of Entrepreneurial Personality on Competitiveness and Corporate Image: A Study on Chocolate Entrepreneurs. *International Review of Management and Marketing, 10*(2), 21–29. https://doi.org/10.32479/irmm

Chaniago, H. (2022). Purchase motives of retail consumers in nanostores: Evidence from Indonesia. *Quality - Access to Success, 23*(186), 98–103. https://doi.org/10.47750/QAS/23.186.13

Chaniago, H. (2023). An Investigation of Entrepreneurial Leadership and Digital Transformation: Achieving Business Success in Uncertain Economic Conditions. Journal of Technology & Innovation Management, 18(2), 18–27. https://doi.org/10.4067/S0718-27242023000200018

Charlwood, A., & Guenole, N. (2022). HR adapts to the paradoxes of artificial intelligence. *Human Resource Management Journal, 32*(4), 729–742. https://doi.org/10.1111/1748-8583.12433

Collins, C., Dennehy, D., Conboy, K., & Mikalef, P. (2021). Artificial intelligence in information systems research: A systematic literature review and research agenda. *International Journal of Information Management, 60*, 102383. https://doi.org/10.1016/j.ijinfomgt.2021.102383

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., & Williams, M. D. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management, 57*, 101994. https://doi.org/10.1016/j.ijinfomgt.2019.08.002

Efawati, Y. (2024). Peran Budaya Digital dan Kreativitas terhadap Kinerja Karyawan: Apakah Krusial Bagi Perusahaan?. *Jurnal Akuntansi Keuangan dan Bisnis*, *17*(2), 139-150.

Efawati, Y. (2023). Trust as Antecedent of Innovative Behavior in the Workplace. International Journal Administration, Business & Organization, 4(3), 35-47. https://doi.org/10.61242/ijabo.23.381

Efawati, Y. (2020). The influence of working conditions, workability and leadership on employee performance. *International Journal Administration, Business & Organization*, *1*(3), 8-15. https://doi.org/10.61242/ijabo.20.40

García-Martínez, I., Fernández-Batanero, J. M., Fernández-Cerero, J., & León, S. P. (2023). Analyzing the impact of artificial intelligence and computational sciences on student performance: Systematic review and meta-analysis. *Journal of New Approaches in Educational Research, 12*(1), 171–197. https://doi.org/10.7821/naer.2023.1.1240

Golightly, L., Chang, V., Xu, Q. A., Gao, X., & Liu, B. S. (2022). Adoption of cloud computing as innovation in the organization. *International Journal of Engineering Business Management, 14*, 18479790221093992. https://doi.org/10.1177/18479790221093992

Gowthami, S. (2025). Enhancing the efficiency of human resources with artificial intelligence in management. *ComFin Research, 13*(S1-i2), 233–237. https://doi.org/10.34293/commerce.v13is1-i2.8773

Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies, 58*(5), 1159–1197. https://doi.org/10.1111/joms.12639

Heliana, & Wahyuni, H. (2024). Big data analysis in human resources decision making: Optimizing workforce management. *JRMSI – Indonesian Journal of Management Science Research, 15*(01), 58–69. https://doi.org/10.21009/JRMSI.015.1.06

Isa Anshori, M., & Safrizal, H. B. A. (2024). Artificial intelligence in Maryawan's recruitment and selection process: A systematic literature review. *Jurnal Masharif Al-Syariah: Journal of Islamic Economics and Banking, 9*(1), 298–314. https://doi.org/10.30651/jms.v9i1.21072

Jiang, Y. (2022). Application of Data Mining Technology in Enterprise Human Resource Management Informatization In *Proceedings of the 2022 International Conference on Artificial Intelligence and Autonomous Robot Systems (AIARS 2022)* (pp. 228–232). IEEE. https://doi.org/10.1109/AIARS57204.2022.00058

Komajwar, S. (2025). Artificial intelligence in human resources: Transforming talent management and workforce efficiency. *International Journal for Multidisciplinary Research, 7*(2), 72. https://doi.org/10.36948/ijfmr.2025.v07i02.395

Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital transformation: An overview of the current state of the art of research. *SAGE Open, 11*(3), 21582440211047576. https://doi.org/10.1177/21582440211047576

Kuzniarska, A., & Stanczyk, I. (2024). Artificial intelligence in HR. In *Information* (pp. 83–98). https://doi.org/10.4324/9781032678719-6

Lutfi, A., & Mohammadi, S. (2025). Digital readiness and the adoption of artificial intelligence in human resource management. *Journal of Business Research, 172*, 114023. https://doi.org/10.1016/j.jbusres.2025.114023

Malik, A., Budhwar, P., & Kazmi, B. A. (2023). Artificial intelligence (AI)-assisted HRM: Towards an extended strategic framework. *Human Resource Management Review, 33*(1), 100940. https://doi.org/10.1016/j.hrmr.2022.100940

Malik, A., Budhwar, P., Patel, C., & Srikanth, N. R. (2022). Delivering HR cost-effectiveness and individualized employee experiences in an MNE. *The International Journal of Human Resource Management, 33*(6), 1148–1178. https://doi.org/10.1080/09585192.2020.1859582

Maqueira Marín, J. M., De Oliveira-Dias, D., Jafari Navimipour, N., Gardas, B., & Unal, M. (2022). Cloud computing and human resource management: Systematic literature review and future research agenda. *Kybernetes, 51*(6), 2172–2191. https://doi.org/10.1108/K-05-2021-0420

Massoud, M., Maaliky, B., El Fawal, A., Mawllawi, A., & Yahkni, F. (2024). Transforming human resources with AI. In *IGI Global* (pp. 254–299). https://doi.org/10.4018/979-8-3693-1046-5.ch011

Mwita, K. M., & Kitole, F. A. (2025). Potential benefits and challenges of artificial intelligence in human resource management in public institutions. *Discover Global Society, 3*(1), Article 35. https://doi.org/10.1007/s44282-025-00175-8

Nagel, P. (2020). Improving competitive Indonesian human resources through education in the era of digital transformation and sustainable technology. *Proceedings of the National Seminar on Applied Science and Technology, 1*(1), 31–38. http://ejurnal.itats.ac.id/sntekpan/article/view/1212

Norman, E., & Pahlawati, E. (2024). The role of artificial intelligence in recruitment and selection: Improving efficiency and accuracy in HRM. *Sci-Tech Journal, 3*(1), 45–59. https://doi.org/10.56709/stj.v3i1.320

Nurain, A., Chaniago, H., & Efawati, Y. (2024). Digital Behavior and Impact on Employee Performance: Evidence from Indonesia. *Journal of Technology Management & Innovation*, *19*(3), 15-27.

Nyathani, R. (2023). AI in performance management: Redefining performance appraisals in the digital age. *Journal of Artificial Intelligence & Cloud Computing, 2*(1), 134. https://doi.org/10.47363/JAICC/2023(2)134

Ore, O., & Sposato, M. (2022). Opportunities and Risks of Artificial Intelligence in Recruitment and Selection *International Journal of Organizational Analysis, 30*(6), 1771–1782. https://doi.org/10.1108/IJOA-07-2020-2291

Putri, Z. Q. F., & Efawati, Y. (2025). Exploring the Impact of Customer Data Security on Consumer Trust in Gojek's Digital Services. *International Journal Administration, Business & Organization*, *6*(1), 136-145.

Qamar, Y., Agrawal, R. K., Samad, T. A., & Chiappetta Jabbour, C. J. (2021). When technology meets people: The interplay of artificial intelligence and human resource management. *Journal of Enterprise Information Management, 34*(5), 1339–1370. https://doi.org/10.1108/JEIM-11-2020-0436

Rahwan, I., & Larson, K. (2022). The ethics of AI in human resources. *Ethics and Information Technology, 24*(4), 723–735. https://doi.org/10.1007/s10676-022-09653-y

Rasyid, S. A., & Putra, R. S. (2018). *Office management: Manajemen perkantoran*. Bandar Publishing.

Rêgo, B. S., Jayantilal, S., Ferreira, J. J., & Carayannis, E. G. (2021). Digital transformation and strategic management: A systematic review of the literature. *Journal of the Knowledge Economy, 14*, 1172–1201. https://doi.org/10.1007/s13132-021-00853-3

Saranya, T. S., Babhuti, K., Jyoti, D., Kaur, H., & Kapoor, T. (2025). The evolving role of artificial intelligence (AI) in human resource management (HRM). In *Advances in Human Resources Management and Organizational Development* (pp. 301–310). https://doi.org/10.4018/979-8-3693-8679-8.ch015

Tabrizchi, H., & Kuchaki Rafsanjani, M. (2020). A survey on security challenges in cloud computing: Issues, threats, and solutions. *The Journal of Supercomputing, 76*(12), 9493–9532. https://doi.org/10.1007/s11227-020-03213-1

Triono, T. A., & Wijaya, E. F. A. (2025). Artificial intelligence in human resource management: Opportunities, ethics, and the future. *Journal of Society Bridge, 3*(2), 84–94. https://doi.org/10.59012/jsb.v3i2.82

Tursunbayeva, A., Bunduchi, R., Franco, M., & Pagliari, C. (2021). Ethics of digital health: A scoping review of empirical research. *BMC Medical Ethics, 22*(1), 13. https://doi.org/10.1186/s12910-021-00654-1

Ulrich, M. D., Way, S. A., & Wright, P. M. (2024). Building strategic human capabilities that drive performance. *International Journal of Human Resource Management, 35*(20), 3341–3373. https://doi.org/10.1080/09585192.2024.2408026

Votto, A. M., Valecha, R., Najafirad, P., & Rao, H. R. (2021). Artificial intelligence in tactical human resource management: A systematic literature review. *International Journal of Information Management Data Insights, 1*(2), 100047. https://doi.org/10.1016/j.jjimei.2021.100047

Zhang, J., & Chen, Z. (2024). Exploring human resource management digital transformation in the digital age. *Journal of the Knowledge Economy, 15*, 1482–1498. https://doi.org/10.1007/s13132-023-01214-y

Zhao, M., & Rabiei, K. (2023). Feasibility of implementing the human resource payroll management system based on cloud computing. *Kybernetes, 52*(4), 1245–1268. https://doi.org/10.1108/K-07-2021-0554