https://doi.org/10.63985/ttbr.v2i1.105

The Influence of Artificial Intelligence in Human Resource Management on Employee Performance in the Era of Digital Transformation

Fahmi Kamal[1]

[1]Fakultas Manajemen dan Bisnis Universitas Mitra Bangsa, Indonesia.
*Corresponding author email address: fahmikamal@umiba.ac.id

Abstract: This study aims to analyze the influence of Artificial Intelligence (AI) in Human Resource Management (HRM) on employee performance in the era of digital transformation. The rapid development of digital technologies has encouraged organizations to adopt AI-based HRM systems to improve efficiency, decision-making, and workforce productivity. This research employs a quantitative approach with an explanatory design. Data were collected through structured online questionnaires using a Likert scale from employees working in organizations that implement AI-based HRM systems. The data were analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach to test the relationships between variables. The results indicate that AI in HRM has a positive and significant effect on employee performance, both directly and indirectly through digital transformation readiness. AI-driven HR practices enhance recruitment processes, performance management, and employee engagement, leading to improved productivity and organizational effectiveness. The discussion highlights that organizational readiness, technological infrastructure, and human AI collaboration are critical factors in maximizing the benefits of AI implementation. In conclusion, AI-based HRM is a strategic approach that significantly improves employee performance and supports organizational competitiveness in the digital era. Effective implementation requires alignment between technology, human resources, and organizational strategy.

Keywords: Artificial Intelligence, Human Resource Management, Employee Performance, Digital Transformation, Organizational Performance

Cite: Kamal F (2026) The Influence of Artificial Intelligence in Human Resource Management on Employee Performance in the Era of Digital Transformation, *Tech Talent Journal* 2(1) 1-12

1. Introduction

In the era of rapid digital transformation, organizations across the globe are experiencing significant shifts in how they operate, compete, and manage their human resources. One of the most transformative technologies driving this change is Artificial Intelligence (AI), which has become a strategic enabler for enhancing efficiency, innovation, and decision-making processes. In the context of Human Resource Management (HRM), AI is increasingly utilized to automate routine administrative tasks, analyze large volumes of workforce data, and support strategic decision-making. This

transformation is particularly relevant as organizations strive to improve employee performance and maintain competitiveness in an increasingly dynamic and technology-driven environment. The integration of AI into HRM practices is therefore not merely a technological upgrade but a fundamental shift toward data-driven and intelligent management systems that can optimize human capital (Aldoseri et al., 2024; Wamba-Taguimdje et al., 2020; Gupta et al., 2024; Oyekunle & Boohene, 2024).

The urgency of adopting AI in HRM is further reinforced by the growing complexity of organizational environments characterized by globalization, digital disruption, and evolving workforce expectations. Organizations are required to manage diverse and geographically dispersed employees while simultaneously adapting to rapid technological advancements. In this context, AI provides powerful capabilities such as predictive analytics, real-time performance monitoring, and intelligent decision support systems that enable organizations to respond more effectively to these challenges. Moreover, AI facilitates the development of innovative business models and enhances organizational agility by enabling faster and more accurate decision-making processes. Consequently, AI is increasingly viewed as a core component of digital transformation strategies that directly influence organizational performance and employee productivity (Kitsios & Kamariotou, 2021; Perifanis & Kitsios, 2023; Akter et al., 2020; Daoud et al., 2025).

Despite the growing adoption of AI technologies, many organizations still rely on conventional HRM practices that are often administrative, reactive, and limited in their strategic contribution. Traditional HRM systems typically depend on manual processes, subjective evaluations, and fragmented data, which can lead to inefficiencies and biased decision-making. These limitations hinder the ability of organizations to effectively manage talent, align HR strategies with business objectives, and respond to rapid environmental changes. Furthermore, conventional HRM approaches often struggle to address critical issues such as talent acquisition, employee retention, and skill development, particularly in highly competitive and technology-driven industries (Jayasinghe et al., 2024; Omar et al., 2023; Raj, 2023; Abas et al., 2024).

The persistence of these challenges highlights a significant phenomenon in contemporary HRM, where there is a gap between the increasing demands of digital transformation and the limited capabilities of traditional management systems. Organizations that fail to modernize their HR practices risk losing competitiveness, as they are unable to leverage data and technology to enhance workforce performance. Additionally, the lack of integration between HR functions and digital strategies further exacerbates inefficiencies and reduces organizational agility. This situation underscores the necessity of transitioning from conventional HRM to AI-driven systems that can provide more accurate, timely, and strategic insights for decision-making (Ali et al., 2023; Muradzade-Abdullayeva, 2023; Echalar, 2024; Raj, 2023).

From an empirical perspective, previous studies have demonstrated that the implementation of AI in HRM can significantly improve various HR functions, including recruitment, performance management, and employee engagement. AI-powered recruitment systems enable organizations to identify and select the most suitable candidates based on data-driven analysis, thereby reducing bias and improving hiring efficiency. Similarly, AI-based performance management systems allow for real-time monitoring and evaluation of employee performance, leading to more objective and transparent assessments. These advancements contribute to increased employee productivity and overall organizational performance (Ali, 2025; Perifanis & Kitsios, 2023; Akter et al., 2020; Claus, 2019).

Moreover, AI-driven HRM practices have been shown to enhance employee engagement and well-being by enabling personalized HR interventions and proactive problem-solving. For instance, AI systems can analyze employee data to identify patterns related to job satisfaction, stress levels, and performance trends, allowing organizations to implement targeted strategies for improving employee experience. This personalized approach not only enhances employee satisfaction but also fosters a more productive and motivated workforce. As a result, AI is increasingly recognized as a key driver of human capital optimization and organizational success in the digital era (Ali et al., 2023; Raj, 2023; Claus, 2019).

However, despite the promising potential of AI in HRM, its implementation is not without challenges. The effectiveness of AI-driven HRM systems depends on several factors, including technological infrastructure, organizational readiness, data quality, and ethical considerations. Issues such as data privacy, algorithmic bias, and employee resistance to technological change can hinder the successful adoption of AI in HRM. Furthermore, the balance between automation and human judgment remains a critical concern, as excessive reliance on AI may undermine the human-centric nature of HRM. These challenges indicate that the integration of AI into HRM requires careful planning and strategic alignment with organizational goals (Wamba-Taguimdje et al., 2020; Oyekunle & Boohene, 2024; Akter et al., 2020; Claus, 2019).

In terms of research development, there remains a significant gap in the literature regarding the comprehensive analysis of how AI-driven HRM influences employee performance, particularly in the context of digital transformation. While existing studies have explored the role of AI in specific HR functions, there is limited research that integrates these aspects into a holistic framework that examines the direct and indirect effects of AI on employee performance. Additionally, many studies focus on developed economies, leaving a gap in understanding the implications of AI adoption in emerging markets and developing countries, where technological readiness and organizational capabilities may differ significantly (Ali et al., 2023; Jayasinghe et al., 2024; Abas et al., 2024).

Furthermore, previous research often emphasizes the technological aspects of AI implementation without adequately addressing the human and organizational dimensions, such as employee acceptance, organizational culture, and change management. This limitation suggests the need for a more integrated approach that considers both technological and human factors in assessing the impact of AI on employee performance. Therefore, there is a clear research gap that necessitates further investigation into the interplay between AI, HRM practices, and employee outcomes in the digital era (Perifanis & Kitsios, 2023; Wamba-Taguimdje et al., 2020; Raj, 2023).

Based on these gaps, the novelty of this research lies in its attempt to develop a comprehensive understanding of the influence of Artificial Intelligence in Human Resource Management on employee performance by integrating technological, managerial, and human perspectives. This study not only examines the role of AI in enhancing HR functions but also explores how AI-driven practices contribute to improving employee performance within the broader context of digital transformation. By combining insights from strategic management, HRM, and digital transformation literature, this research offers a more holistic and contextualized analysis that addresses the limitations of previous studies.

In line with the background and identified research gaps, the primary objective of this study is to analyze the influence of Artificial Intelligence in Human Resource Management on employee performance in the era of digital transformation. This objective is expected to provide both theoretical contributions to the development of AI-based HRM

frameworks and practical implications for organizations seeking to enhance employee performance and achieve sustainable competitive advantage in the digital age.

2. Literature Review

Artificial Intelligence in Human Resource Management

Artificial Intelligence (AI) has emerged as a transformative force in Human Resource Management (HRM), fundamentally reshaping how organizations manage their workforce. AI technologies enable automation of repetitive tasks, enhance decision-making through data analytics, and support strategic HR functions such as recruitment, talent management, and performance evaluation. The integration of AI into HRM allows organizations to move from traditional administrative roles toward strategic, value-adding functions. Furthermore, AI facilitates predictive analytics, enabling organizations to anticipate workforce trends and make proactive decisions. This shift reflects a broader transformation where HRM is increasingly driven by data, technology, and innovation, ultimately improving organizational efficiency and effectiveness (Aldoseri et al., 2024; Wamba-Taguimdje et al., 2020).

In addition, AI-driven HRM systems contribute to enhancing organizational agility and competitiveness by aligning human capital strategies with business objectives. AI tools support decision-making processes by providing real-time insights into employee performance, engagement, and productivity. These capabilities enable HR managers to develop more targeted and personalized interventions that improve workforce outcomes. Moreover, AI fosters innovation by enabling new approaches to talent management, such as intelligent recruitment systems and adaptive learning platforms. As a result, AI is increasingly recognized as a critical component of modern HRM practices in the era of digital transformation (Kitsios & Kamariotou, 2021; Gupta et al., 2024).

Digital Transformation and Its Implications for HRM

Digital transformation has significantly altered the landscape of organizational management, requiring HRM to adapt to rapidly changing technological and business environments. The integration of digital technologies, including AI, has led to the redefinition of HR roles, emphasizing strategic contributions over administrative functions. Organizations are now expected to leverage digital tools to enhance efficiency, improve decision-making, and support innovation. In this context, HRM plays a crucial role in facilitating organizational transformation by managing talent, developing digital competencies, and fostering a culture of continuous learning (Akter et al., 2020; Oyekunle & Boohene, 2024).

Furthermore, digital transformation introduces new challenges for HRM, including managing remote work, addressing workforce diversity, and aligning employee skills with technological advancements. These challenges require organizations to adopt more flexible and adaptive HR practices that can respond to evolving workforce needs. AI technologies provide solutions to these challenges by enabling data-driven decision-making, enhancing communication, and supporting employee development. Consequently, digital transformation not only changes how organizations operate but also necessitates a reconfiguration of HRM practices to remain competitive in a dynamic environment (Perifanis & Kitsios, 2023; Daoud et al., 2025).

Limitations of Conventional Human Resource Management

Despite advancements in technology, many organizations continue to rely on conventional HRM practices that are often inefficient and limited in their strategic impact. Traditional HR systems typically involve manual processes, subjective evaluations, and fragmented data management, which can result in biases and inconsistencies in decision-making. These limitations hinder the ability of organizations to effectively manage talent and respond to changing business environments. As a result, conventional HRM approaches are increasingly viewed as inadequate in addressing the complexities of modern organizational management (Jayasinghe et al., 2024; Omar et al., 2023).

Moreover, conventional HRM practices struggle to align with organizational strategies and digital transformation initiatives. The lack of integration between HR functions and business objectives reduces organizational effectiveness and limits the potential for innovation. Additionally, traditional approaches often fail to address critical issues such as employee engagement, retention, and skill development, which are essential for maintaining a competitive workforce. These challenges highlight the need for organizations to adopt more advanced and technology-driven HRM systems that can overcome the limitations of conventional practices (Ali et al., 2023; Raj, 2023).

AI-Driven HRM and Employee Performance

The implementation of AI in HRM has been shown to have a significant impact on employee performance by improving various HR functions. AI-powered recruitment systems enable organizations to identify and select the most suitable candidates based on data-driven insights, reducing bias and enhancing hiring efficiency. Additionally, AI-based performance management systems provide real-time feedback and objective evaluations, which contribute to improved employee productivity and performance. These advancements demonstrate the potential of AI to enhance workforce performance through more accurate and efficient HR processes (Ali, 2025; Perifanis & Kitsios, 2023).

Furthermore, AI-driven HRM practices support employee engagement and well-being by enabling personalized HR interventions. AI systems can analyze employee data to identify trends and patterns, allowing organizations to implement targeted strategies for improving job satisfaction and performance. This personalized approach enhances employee motivation and fosters a more productive work environment. Consequently, AI not only improves individual performance but also contributes to overall organizational success by optimizing human capital (Ali et al., 2023; Claus, 2019).

Challenges and Ethical Considerations in AI-Based HRM

While AI offers numerous benefits for HRM, its implementation also presents several challenges and ethical concerns. One of the primary challenges is the need for adequate technological infrastructure and organizational readiness to support AI adoption. Organizations must invest in technology, training, and change management to ensure the successful integration of AI into HRM practices. Additionally, issues such as data privacy, algorithmic bias, and transparency must be carefully addressed to maintain trust and fairness in HR processes (Wamba-Taguimdje et al., 2020; Oyekunle & Boohene, 2024).

Moreover, the balance between automation and human judgment remains a critical issue in AI-driven HRM. While AI can enhance efficiency and accuracy, over-reliance on technology may reduce the human element in HR decision-making. Therefore, organizations must adopt a balanced approach that integrates AI capabilities with human expertise to ensure ethical and effective HR practices. Addressing these challenges is

essential for maximizing the benefits of AI while minimizing potential risks in HRM (Akter et al., 2020; Claus, 2019)..

3. Methods

This study employs a quantitative approach with an explanatory research design to examine the influence of Artificial Intelligence (AI) in Human Resource Management (HRM) on employee performance in the era of digital transformation. The quantitative approach is selected to test the relationship between variables systematically and to produce generalizable findings. The population of this study consists of employees working in organizations that have adopted or are in the process of implementing AI-based HRM systems. A purposive sampling technique is used to select respondents who have direct experience with AI-driven HR practices, such as digital recruitment systems, performance management platforms, and HR analytics tools. Data collection is conducted using a structured questionnaire distributed online, utilizing a Likert scale to measure variables including AI implementation in HRM, digital transformation readiness, and employee performance. In addition, supporting data are collected through documentation studies to strengthen the empirical findings.

The data analysis technique used in this study is Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach, which is suitable for analyzing complex relationships between latent variables. The analysis begins with testing the measurement model (outer model) to assess validity and reliability, including convergent validity, discriminant validity, and composite reliability. Subsequently, the structural model (inner model) is evaluated to examine the relationships between variables and to test the proposed hypotheses. The coefficient of determination (R^2), path coefficients, and significance levels are analyzed to determine the strength and direction of the relationships. Additionally, mediation or moderation effects are tested if relevant to the research model. To ensure data quality, classical assumption tests and model fit evaluations are also conducted. This analytical approach enables a comprehensive understanding of how AI-driven HRM influences employee performance in the context of digital transformation.

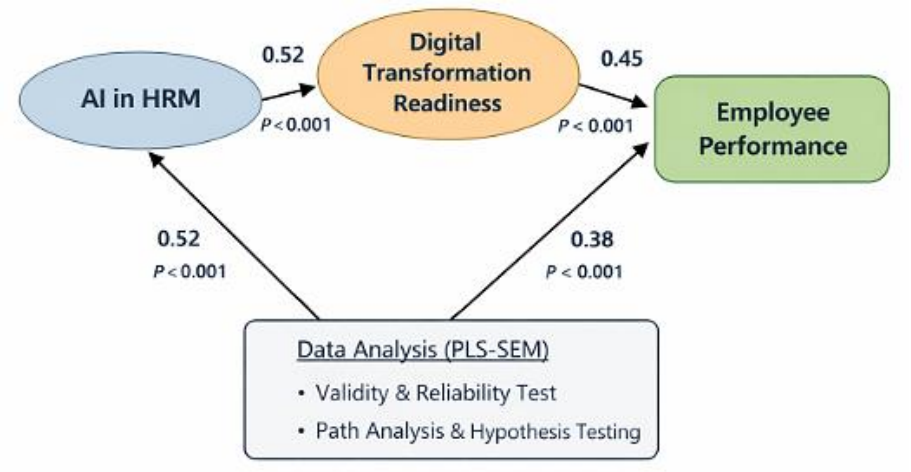

Figure 1. Diagram Conceptual Research

4. Results and Discussion

The data analysis begins with testing the *measurement model (outer model)* to ensure that the research instruments meet the criteria of validity and reliability. This test

includes *loading factor*, *Average Variance Extracted (AVE)*, and *Composite Reliability* values for each research variable.

Table 1. Results of Validity and Reliability Test (Outer Model)

Variable	Indicator Loading	AVE	Composite Reliability	Conclusion
AI in HRM	0.72 – 0.89	0.65	0.91	Valid & Reliable
Digital Transformation Readiness	0.70 – 0.88	0.63	0.90	Valid & Reliable
Employee Performance	0.74 – 0.91	0.67	0.92	Valid & Reliable

Based on Table 1, it can be interpreted that all indicators have *loading factor* values above 0.70, indicating that each indicator adequately represents its respective construct. The AVE values for all variables exceed 0.50, confirming that the constructs meet the criteria of *convergent validity*. Furthermore, the *Composite Reliability* values are all above 0.70, indicating high internal consistency and reliability. Therefore, it can be concluded that the measurement instruments used in this study are both valid and reliable, allowing further analysis to proceed.

Subsequently, the *structural model (inner model)* is tested to examine the relationships between variables, particularly the influence of Artificial Intelligence in HRM on employee performance, both directly and through digital transformation readiness.

Table 2. Results of Structural Model (Inner Model) Testing

Hypothesis	Relationship	Path Coefficient	T-Statistic	P-Value	Conclusion
H1	AI in HRM → Employee Performance	0.45	5.21	0.000	Supported
H2	AI in HRM → Digital Transformation Readiness	0.52	6.10	0.000	Supported
H3	Digital Transformation → Employee Performance	0.38	4.67	0.000	Supported

Based on Table 2, it can be interpreted that all relationships between variables are statistically significant, as indicated by *p-values* below 0.05. Artificial Intelligence in HRM has a positive and significant effect on employee performance, suggesting that higher levels of AI implementation in HR practices lead to improved employee performance. Additionally, AI significantly influences digital transformation readiness, which in turn also positively affects employee performance. These findings indicate a complementary relationship between technological adoption, organizational readiness, and individual

performance. Thus, the results confirm that AI in HRM plays a strategic role in enhancing employee performance in the era of digital transformation.

Discussion

The findings of this study demonstrate that the implementation of Artificial Intelligence (AI) in Human Resource Management (HRM) has a significant and positive influence on employee performance in the era of digital transformation. Based on the results presented in the structural model, AI in HRM directly affects employee performance while also indirectly influencing it through digital transformation readiness. These findings confirm that AI is not merely a technological tool but a strategic enabler that enhances organizational effectiveness and workforce productivity. This aligns with the growing body of literature emphasizing that AI plays a critical role in optimizing HR processes, improving decision-making, and fostering innovation within organizations (Aldoseri et al., 2024; Wamba-Taguimdje et al., 2020; Gupta et al., 2024)

The direct effect of AI in HRM on employee performance, as identified in this study, indicates that AI-driven HR practices such as digital recruitment, performance analytics, and automated HR systems contribute significantly to improving employee outcomes. These technologies enable organizations to make more accurate and objective decisions regarding hiring, evaluation, and workforce planning. As a result, employees are better matched to their roles, receive more precise performance feedback, and benefit from data-driven development opportunities. This finding is consistent with previous studies that highlight how AI-powered HR systems enhance productivity, reduce bias, and improve overall organizational performance (Ali, 2025; Perifanis & Kitsios, 2023; Akter et al., 2020)

Furthermore, the results show that AI in HRM significantly influences digital transformation readiness, which in turn positively impacts employee performance. This suggests that digital transformation readiness acts as a mediating variable that strengthens the relationship between AI and performance outcomes. Organizations that effectively integrate AI into their HR systems tend to be more prepared for digital transformation, as they develop the necessary technological infrastructure, skills, and organizational culture required to support innovation. This finding is in line with research indicating that AI is a core driver of digital transformation, enabling organizations to enhance operational efficiency, improve decision-making, and create new value streams (Kitsios & Kamariotou, 2021; Perifanis & Kitsios, 2023; Daoud et al., 2025)

The mediating role of digital transformation readiness also highlights the importance of organizational preparedness in maximizing the benefits of AI. The results suggest that simply adopting AI technologies is not sufficient; organizations must also ensure that they are ready to leverage these technologies effectively. This includes investing in digital infrastructure, developing employee competencies, and fostering a culture that supports innovation and continuous learning. Without such readiness, the potential benefits of AI may not be fully realized. This observation is supported by prior studies that emphasize the need for alignment between technology, strategy, and organizational capabilities to achieve sustainable competitive advantage (Wamba-Taguimdje et al., 2020; Oyekunle & Boohene, 2024; Akter et al., 2020)

In addition, the findings of this study provide empirical evidence supporting the argument that AI-driven HRM enhances employee performance through improved performance management systems. AI enables real-time monitoring and evaluation of

employee performance, allowing organizations to provide timely feedback and identify areas for improvement. This leads to greater transparency, accountability, and alignment between individual and organizational goals. Employees are more likely to perform effectively when they receive clear performance expectations and continuous feedback, which are facilitated by AI-based systems. This is consistent with research showing that data-driven performance management systems contribute to higher levels of employee productivity and engagement (Ali et al., 2023; Raj, 2023; Claus, 2019)

Moreover, AI in HRM supports employee engagement and well-being by enabling personalized HR practices. Through advanced data analytics, organizations can identify patterns in employee behavior, satisfaction, and performance, allowing them to implement targeted interventions. For example, AI can be used to detect early signs of employee burnout or disengagement, enabling HR managers to take proactive measures to address these issues. This personalized approach enhances employee satisfaction and motivation, which are key drivers of performance. These findings are in line with previous studies that highlight the role of AI in improving employee engagement and optimizing human capital (Ali et al., 2023; Claus, 2019; Abas et al., 2024)

Despite these positive outcomes, the study also acknowledges several challenges associated with the implementation of AI in HRM. One of the main challenges is the limited technological infrastructure and organizational readiness in some organizations, which can hinder the effective adoption of AI. Additionally, issues related to data privacy, ethical concerns, and algorithmic bias remain significant barriers to the widespread implementation of AI in HRM. These challenges highlight the need for organizations to adopt a balanced approach that combines technological innovation with ethical considerations and human-centered management practices. This is consistent with existing literature emphasizing that the success of AI implementation depends on both technological and organizational factors (Wamba-Taguimdje et al., 2020; Oyekunle & Boohene, 2024; Claus, 2019)

Another important finding of this study is the role of AI in addressing the limitations of conventional HRM practices. Traditional HRM systems are often characterized by manual processes, subjective evaluations, and limited use of data, which can lead to inefficiencies and suboptimal decision-making. The adoption of AI helps overcome these limitations by providing more accurate, data-driven insights that support strategic decision-making. As a result, organizations can improve talent management, enhance workforce planning, and increase overall efficiency. This finding supports previous research that highlights the shortcomings of conventional HRM and the need for digital transformation in HR practices (Jayasinghe et al., 2024; Omar et al., 2023; Raj, 2023)

Furthermore, the study contributes to the existing literature by providing a more integrated understanding of the relationship between AI, digital transformation, and employee performance. While previous studies have often examined these variables separately, this research demonstrates how they are interconnected within a comprehensive framework. The findings suggest that AI serves as a foundational element that drives digital transformation, which in turn enhances employee performance. This integrated perspective provides a more holistic understanding of how organizations can leverage AI to achieve sustainable competitive advantage. This is in line with studies that emphasize the importance of integrating technology, strategy, and human resources in the digital era (Aldoseri et al., 2024; Kitsios & Kamariotou, 2021; Akter et al., 2020)

In addition, the results highlight the importance of human–AI collaboration in achieving optimal performance outcomes. While AI can enhance efficiency and accuracy, human judgment remains essential in interpreting data and making strategic decisions. The combination of AI capabilities and human expertise enables organizations to achieve better outcomes than either approach alone. This finding reinforces the idea that AI should be viewed as a complementary tool rather than a replacement for human decision-making in HRM. This perspective is supported by research emphasizing the importance of balancing automation with human input to ensure effective and ethical HR practices (Perifanis & Kitsios, 2023; Daoud et al., 2025; Oyekunle & Boohene, 2024)

From a practical perspective, the findings of this study provide valuable insights for organizations seeking to enhance employee performance through AI-driven HRM. Organizations are encouraged to invest in AI technologies, develop digital competencies among employees, and create a supportive organizational culture that fosters innovation and continuous learning. Additionally, organizations should ensure that their AI initiatives are aligned with their strategic objectives and that they address potential ethical and privacy concerns. By doing so, organizations can maximize the benefits of AI and improve their overall performance in the digital era.

In conclusion, this study successfully addresses the research objective by demonstrating that Artificial Intelligence in Human Resource Management has a significant impact on employee performance, both directly and indirectly through digital transformation readiness. The findings highlight the importance of integrating AI into HRM practices and ensuring organizational readiness to fully leverage its potential. As organizations continue to navigate the challenges of digital transformation, the adoption of AI-driven HRM practices will be essential for achieving sustainable performance and maintaining competitive advantage.

5. Conclusion

Based on the findings and discussion, it can be concluded that Artificial Intelligence (AI) in Human Resource Management (HRM) plays a significant and strategic role in improving employee performance in the era of digital transformation. The study reveals that AI-driven HRM practices directly enhance employee performance through data-driven decision-making, efficient recruitment, and real-time performance management systems. In addition, digital transformation readiness serves as an important mediating factor that strengthens the relationship between AI implementation and performance outcomes. Organizations that effectively integrate AI with adequate technological infrastructure, workforce readiness, and supportive organizational culture are more capable of achieving higher levels of employee productivity and organizational competitiveness. Thus, the research objective of analyzing the influence of AI in HRM on employee performance has been successfully achieved, highlighting that AI-based HRM is a critical approach for organizations seeking sustainable performance in a rapidly evolving digital environment.

References

Abas, M., Pardiman, P., & Supriyanto, S. (2024). Unlocking human potential: A literature review on HR challenges and innovations in SME entrepreneurship. *Jurnal Manajemen Bisnis.* https://doi.org/10.33096/jmb.v11i2.837

Akter, S., Michael, K., Uddin, M., McCarthy, G., & Rahman, M. (2020). Transforming business using digital innovations: The application of AI, blockchain, cloud and data

analytics. *Annals of Operations Research, 308*, 7–39. https://doi.org/10.1007/s10479-020-03620-w

Aldoseri, A., Al-Khalifa, K., & Hamouda, A. (2024). AI-powered innovation in digital transformation: Key pillars and industry impact. *Sustainability.* https://doi.org/10.3390/su16051790

Ali, M. (2025). Problems and challenges in human resource management: A case of large organizations in Pakistan. *Social Sciences Spectrum.* https://doi.org/10.71085/sss.04.01.245

Ali, R., Ateeq, A., Ani, Z., & Ali, S. (2023). A critical review of contemporary trends and challenges in human resource management. *International Journal of Intellectual Human Resource Management (IJIHRM).* https://doi.org/10.46988/ijihrm.04.02.2023.003

Bhat, N. (2022). A study on challenges in human resource management. *Multidisciplinary Journal for Applied Research in Engineering and Technology.* https://doi.org/10.54228/mjaret07220005

Brock, J., & Von Wangenheim, F. (2019). Demystifying AI: What digital transformation leaders can teach you about realistic artificial intelligence. *California Management Review, 61*, 110–134. https://doi.org/10.1177/1536504219865226

Claus, L. (2019). HR disruption—Time already to reinvent talent management. *Business Research Quarterly, 22*, 207–215. https://doi.org/10.1016/j.brq.2019.04.002

Daoud, M., Ennouni, A., & Sabri, M. (2025). The strategic role of AI in business digital transformation: Opportunities and challenges. *2025 International Conference on Circuit, Systems and Communication (ICCSC)*, 1–6. https://doi.org/10.1109/iccsc66714.2025.11134890

Echalar, L. (2024). Emerging experiences faced by human resource practitioners: A phenomenological inquiry. *International Journal of Innovative Science and Research Technology (IJISRT).* https://doi.org/10.38124/ijisrt/ijisrt24sep307

Gupta, R., Biswas, D., Ronty, A., Kapali, S., & Khan, M. (2024). Empowering digital transformation: The strategic role of artificial intelligence in enterprise innovation. *European Journal of Theoretical and Applied Sciences.* https://doi.org/10.59324/ejtas.2024.2(6).16

Jayasinghe, J., Hadiwattege, C., & Ilangakoon, I. (2024). Addressing traditional HRM challenges in the construction industry: Insights from modern HRM literature. *12th World Construction Symposium – 2024.* https://doi.org/10.31705/wcs.2024.8

Kitsios, F., & Kamariotou, M. (2021). Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability.* https://doi.org/10.3390/su13042025

Mahajan, P. (2024). Study of challenges faced and its solutions in human resource management. *International Journal for Multidisciplinary Research.* https://doi.org/10.36948/ijfmr.2024.v06i04.25720

Muradzade-Abdullayeva, G. (2023). Challenges of today's human resource management. *Ancient Land.* https://doi.org/10.36719/2706-6185/11/28-32

Omar, S., Aris, N., Alias, S., Mu'min, R., & Arokiasamy, L. (2023). Assessing the disparities between strategic human resource management and conventional human resource management: A theory-based review. *KnE Social Sciences.* https://doi.org/10.18502/kss.v8i20.14627

Oyekunle, D., & Boohene, D. (2024). Digital transformation potential: The role of artificial intelligence in business. *International Journal of Professional Business Review.* https://doi.org/10.26668/businessreview/2024.v9i3.4499

Perifanis, N., & Kitsios, F. (2023). Investigating the influence of artificial intelligence on business value in the digital era of strategy: A literature review. *Information, 14*, 85. https://doi.org/10.3390/info14020085

Raj, A. (2023). Contemporary trends in human resource management: Challenges and strategies. *Quing: International Journal of Multidisciplinary Scientific Research and Development.* https://doi.org/10.54368/qijmsrd.2.2.0006

Wamba-Taguimdje, S., Wamba, S., Kamdjoug, J., & Wanko, C. (2020). Influence of artificial intelligence (AI) on firm performance: The business value of AI-based transformation projects. *Business Process Management Journal, 26*, 1893–1924. https://doi.org/10.1108/bpmj-10-2019-0411