

Human Resource Management Strategies for Enhancing Employee Performance in the Era of Digital Transformation

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Abstract: Digital transformation has changed job requirements and encouraged organizations to adjust their human resource management (HRM) strategies to improve employee performance. This study aims to analyze HRM strategies that can support employee performance improvement in the era of digital transformation. The study employs a qualitative approach using a library research method by reviewing relevant journal articles, books, institutional reports, and academic publications. The data were analyzed using content analysis and thematic synthesis by grouping findings into several aspects, including digital competency and skills development, upskilling and reskilling, HRM digitalization, leadership, organizational culture, performance management, and employee engagement. The findings indicate that effective HRM strategies should not focus solely on technology adoption but also emphasize the development of digital and adaptive competencies, continuous learning, leadership that supports change, an adaptive organizational culture, and digital-based HRM and performance management systems. These strategies need to be implemented integratively by placing people at the center of the transformation process so that technology can support productivity, innovation, effectiveness, and performance quality. Therefore, the success of digital transformation largely depends on an organization's ability to align technology, human competencies, organizational systems, and strategic objectives to achieve adaptive and sustainable employee performance.

Keywords: Human Resource Management, Digital Transformation, Digital Competency, Digital HRM.

INTRODUCTION

The development of digital technology has brought fundamental changes to the way organizations carry out activities, manage work, and develop human resources. Technologies such as artificial intelligence (AI), big data, cloud computing, automation, digital platforms, and various collaboration technologies have become part of an organization's strategy to create value, increase efficiency, expand access to information, and respond to changes in the business environment (Agir & Muharram, 2024). This change causes the boundary between human activities and technology to be more open, so that organizations are required to have faster adaptability, including through the readiness of human resources who are able to understand and utilize technological developments appropriately.

The dynamics of change are increasingly visible in the world of work as work that was previously done manually begins to shift towards digitized and data-driven processes. Internal communication can be done through various digital platforms, while AI is beginning to be used to support analysis, decision-making, and job completion. *World Economic Forum* in the Future of Jobs Report 2025 shows that technological developments are one of the key factors shaping the job market until 2030. AI and big data are among the fastest-growing skill groups, while technology literacy and adaptability are increasingly needed by the workforce (Mula & Ristiani, 2025). Field phenomena show that transformation is closely related to human readiness within the organization.

In the above context, human resource management acquires a strategic position. Organizations need to ensure that employees have competencies that are appropriate to job changes. The function of MSDM is increasingly connected to organizational strategy through career development, training, performance evaluation and competency development. Developments encourage the emergence of *Digital Human Resource* management (digital HRM), which is the use of digital technology in various HR processes. Technology enables the HR management process to be faster, data-based, and integrated, including through the use of analytics and AI (Kiswanto et al., 2025). Thus, human resources play a role in preparing humans to be able to provide optimal performance in a changing work environment.

The link between digital HRM and performance has received attention in previous research. Research (Zulfita, 2026) Through a meta-analysis of 96 empirical studies with a total of 37,924 respondents, it was found that digital HRM has a positive relationship with various performance categories, both at the individual, operational, transformational, and organizational levels. Research (Silalahi et al., 2025) also develop the concept of digital human resource strategy by placing the integration between the MSDM process and digital technology as an important part of the organization's strategy. Other research by (Mulyani et al., 2025) regarding HR digital transformation shows that the integration of AI and knowledge-based systems is increasingly important in the development of human resources digital capabilities. Meanwhile, research (Firdaus & Kuswinarno, 2024) shows that digital transformation is related to HR management, innovative work behaviors, and job performance. Research (Jamarudin et al., 2026) It shows that

digital transformation can improve performance through increased competence, motivation to learn, work autonomy, and the ability to unlearn.

The five previous studies provide an overview that the digitalization of HRD, competency development, digital transformation, and employee performance have a strong relationship. However, there is a difference in focus between these studies. Some studies emphasize the relationship between HRM digital and performance, others discuss digital transformation and competencies, while other studies highlight employee adaptation mechanisms or the integration of technology with HR strategies. This condition shows that the literature has provided many explanations on each aspect, but discussions that integrate various HR strategies in one complete framework still have room for development.

The research gap is increasingly visible when the MSDM strategy is understood more broadly. Digital competency development, training and reskilling, leadership, organizational culture, performance management, employee engagement, and the use of technology in the MSDM process are interrelated aspects. In addition, digital transformation needs to be understood as a comprehensive change in the way organizations manage people. Digitalization can change the process of recruitment, training, communication, performance evaluation, decision-making, and leadership patterns.

At the employee level, another issue that needs to be considered is the competency gap. Not all employees have the same level of digital readiness. Some are able to adapt quickly to new systems, while others require more intensive training, mentoring, and learning opportunities (Faidz & Kuswinarmo, 2024). Therefore, the MSDM strategy needs to be directed at developing competencies in critical thinking skills, creativity, communication, collaboration, adaptation, and continuous learning.

The problem has become more complex with the development of AI. The changes brought about by AI are related to changes in work design, the division of tasks between humans and technology, and the demands on employee skills. The HR strategy therefore needs to pay attention to the ability of employees to work side by side with increasingly intelligent technology. Organizations need to build a work culture that provides space for learning, experimentation, communication, and the development of new skills. At the same time, leadership has an important

role in explaining the direction of change, building trust, providing support, and ensuring that employees have the conditions that allow them to adapt.

Based on the description above, the research problem does not stop at the question of whether digital transformation can improve employee performance, but develops on how MSDM strategies are designed and implemented so that transformation produces optimal performance. Strategies include digital competency development, training and reskilling, the use of technology in MSDM, leadership that supports change, an adaptive organizational culture, and a performance management system that is able to adapt to the characteristics of digital work.

On the basis of *the research gap* above, this study aims to systematically examine human resource management strategies in improving employee performance in the era of digital transformation. This study identifies competency development strategies, training, leadership, organizational culture, performance management, and technology utilization based on various previous studies as well as factors that support and hinder their implementation. Literature studies are used to compare and synthesize various research findings so that a more complete understanding of HR strategies in dealing with digital change is obtained. The results of the study are expected to contribute to the development of HR studies as well as become a consideration for organizations in developing human resources that are adaptive to digital transformation.

METHOD

This study uses a qualitative approach with a literature study method (*Library Research*) (Saadah et al., 2022). The research was conducted by examining various scientific sources relevant to human resource management strategies in improving employee performance in the era of digital transformation. Research data sources are in the form of secondary data obtained from scientific journal articles, books, institutional reports, and academic publications related to human resource management, digital transformation, digital human resource management, digital competencies, training and development, leadership, performance management, and employee performance. Literature search was conducted through Google Scholar, ScienceDirect and various academic journal portals using a combination of keywords such as "*Human Resource Management*", "*Strategic Human Resource Management*", "*Digital Transformation*", "*Digital HRM*" and

"upskilling". The literature was selected based on relevance to the research focus, availability of accountable information, and its contribution in explaining the relationship between HR strategy, digital transformation, and employee performance.

Literature collection and processing is carried out through the stages of identification, selection, critical reading, and grouping of sources based on the theme of the study. The literature is reviewed through titles and abstracts, then read in depth to identify objectives, methods, concepts, contexts, and research results that are relevant to the focus of the study. The information obtained is grouped into the themes of digital competency and skill development, training and *reskilling*, leadership, organizational culture, HR digitalization, performance management, and employee engagement. Furthermore, the data is analyzed qualitatively through content *analysis* and thematic *synthesis* by comparing similarities, differences, and tendencies of findings between sources. The validity of the study was strengthened through *cross-checking* of academic literature and credible institutional publications, then all findings were synthesized to gain an understanding of MSDM strategies that can support employee adaptation to digital transformation and performance improvement

RESULT AND DISCUSSION

1. Competency Development and Employee Adaptation Strategies in the Era of Digital Transformation

Digital transformation has changed the demands on employee competencies. Changes are not only related to the ability to use digital devices or applications, but also include the ability to understand data, adapt to new systems, learn sustainably, solve problems, and work effectively in an increasingly digitized environment. Studies on the development of digital MSDM show that organizations increasingly need integration between technology and human capabilities because digitalization fundamentally changes the design of work as well as the way employees carry out their work. Research (Harahap, 2026) shows that the HR digital strategy is a form of integration between the MSDM process and digital technology, this integration can contribute to improving organizational performance.

Competency development is the main strategy of MSDM in facing digital transformation. Digital competence needs to be directed at employees' ability to utilize technology, make data-based decisions, and solve work problems (Nugroho & Tambunan, 2025). As automation of routine work occurs, organizations need to implement strategies Upskilling and reskilling in a sustainable manner so that employee competencies remain in accordance with technological changes and job demands. The success of this strategy is supported by a culture of continuous learning, the use of technology in learning, and the involvement of leaders.

Competency development also needs to be placed as an ongoing process. Employees who are used to learning and updating their competencies will be more likely to adapt when technology, procedures, and job demands change. This is reinforced by research (Metris et al., 2025) shows that the benefits of digital transformation on employee performance are greatly influenced by the individual's ability to absorb and apply digital knowledge

In addition to technical skills, employee adaptation is also influenced by the organization's ability to build psychological and social conditions that support change. Digitalization that is too technology-oriented has the potential to cause digital overload, resistance, or feelings of loss of control over work. Studies on *Digital Human-Centricity* by (Nisa et al., 2026) It found that an approach that puts humans at the center of digital transformation can improve employee well-being and ultimately support organizational performance. However, that influence can be weakened when the digital burden is too high, while organizational leadership and culture can strengthen employees' acceptance of technology.

Based on these studies, competency development strategies in the era of digital transformation need to be directed at a combination of technical competencies and adaptive competencies. Organizations do not provide enough training for employees to be able to operate digital systems, but need to build learning skills, think critically, solve problems, collaborate, and adapt to change. Thus, competency development is not just an instrument for skill improvement, but a strategic mechanism to ensure that technology investment can be translated into improved human performance.

2. Transforming Human Resource Management Practices in Improving Employee

Performance

Digital transformation also encourages changes in the practices of MSDM itself. The function of MSDM, which previously relied heavily on administrative processes, is starting to move towards a system that is integrated with digital technology, data, automation, and artificial intelligence. Shifts can be seen in the processes of recruitment, management, training, talent management, performance evaluation, and decision-making in MSDM.

One of the important changes is the development of digital concepts *Human Resource Management* or e-HRM. Through digital systems, organizations can integrate employee information and carry out various MSDM functions more quickly and in a structured manner (Mahmudah et al., 2024). A meta-analysis of e-HRM research showed that factors such as perceptions of system usability, organizational resources, user knowledge, and social influence were associated with e-HRM adoption. The study also found a positive relationship between e-HRM and organizational performance, although the magnitude of benefits can vary depending on the level of information technology development and the quality of human capital in an organizational environment.

In a broader context, digitalization is also changing performance management systems. Technology allows organizations to collect job data more quickly, monitor performance indicators, provide feedback, and use that information to support employee development decisions. However, digital performance management systems need to be designed proportionately so that they do not turn into excessive oversight mechanisms. Research (Umboh, 2025) About *AI-driven HRM* shows that technology can support employee learning and innovation, but the benefits depend on how the system affects employees' autonomy, motivation, and ability to use the knowledge they have.

The transformation of HR practices also shows that the HR function is increasingly required to become a strategic partner of the organization (Nasti & Lubis, 2025). HR needs to be able to read data, identify competency gaps, predict workforce needs, and design development interventions that are in line with the direction of the business.

The findings show that the transformation of HR practices should not be understood as the digitization of administrative procedures alone. More substantive transformation occurs when technology is used to improve the quality of decision-making, accelerate competency development, improve employee experience, and create more responsive performance systems.

Thus, the success of the transformation of MSDM practices is determined by the compatibility between technology, organizational systems, and human readiness. Organizations need to ensure that HR digitization provides convenience for employees, not just adding new systems that must be learned. The application of technology also needs to be accompanied by policies regarding data security, transparency, user training, and evaluation mechanisms. This approach allows the digitalization of MSDM to contribute to performance without neglecting the needs and experience of employees.

3. MSDM's Integrative Strategy in Building Adaptive and Sustainable Employee Performance

The results of the study in the previous section show that improving employee performance in the era of digital transformation cannot be explained through just one strategy. Competency development is important, but good competencies will not provide optimal results if the organization does not have a supporting HR system. Similarly, the application of HR technology can increase efficiency, but the benefits will be limited if employees do not have the ability and readiness to use it. Therefore, the HR strategy needs to be built integratively by connecting human development, transformation of HR practices, technology, leadership, and organizational culture.

The above integration shows that there is a mutually reinforcing relationship. Digital competencies provide employees with the ability to use technology, digitalization of MSDM provides systems and processes that support work, while leadership and organizational culture create an environment that encourages acceptance of change. These three elements are then strengthened through a performance management system that provides direction, indicators, feedback, and development opportunities. This pattern is in line with research findings (Kirana

et al., 2023) that the benefits of digital transformation on performance are greatly influenced by employees' capacity to absorb and apply digital knowledge.

At the strategic level, organizations need to build a culture of continuous learning. Digital transformation makes competencies that are relevant today not necessarily remain relevant in the coming years. Therefore, organizations need to change their HR development approach from a momentary training model to a continuous learning system. *Upskilling* and *reskilling* programs need to be linked to business needs and job development, while learning outcomes need to be linked to career opportunities and employee development. This kind of approach can build a workforce that is more agile and able to respond to changes more quickly.

Integrative strategies also require leadership that is able to bridge the interests of technology and people. Leaders need to ensure that the application of technology has clear goals, is communicated openly, and is accompanied by adequate support for employees. Leadership is becoming increasingly important because employees' responses to technology are not always the same (Darmawan & Adzhar, 2026). Some employees may see technology as a means to make work easier, while others may view it as a source of pressure or threat. Research (Prabawa & Kuswinarno, 2024) About the approach *Human-centric* shows that leadership and organizational culture can strengthen the acceptance of technology, while digital *Overload* It can actually weaken the positive impact of digital transformation.

In addition to leadership, performance sustainability requires attention to employee well-being and experience. Organizations that only pursue productivity through automation and digital monitoring have the potential to ignore the human aspect of work. In fact, sustainable performance requires a balance between job demands, employee capabilities, organizational support, and opportunities to grow. Studies on human-based HR transformation show that employee well-being can be one of the mechanisms that connect human-centered digital approaches to organizational performance.

Synthesis from various studies also shows that AI needs to be placed as a supporting tool, not a replacement for the overall role of humans in HRM. AI can help organizations automate administrative work, data analysis, competency mapping, and information-based decision-making. However, the use of AI still requires the ability of humans to interpret

information, consider context, maintain ethics, and make decisions. Research on AI-driven HRM shows that the use of AI can drive innovation through metacognitive strategies, but the impact depends on the ability of employees to understand and utilize the tacit knowledge they have.

Based on the overall study, the integrative strategy of MSDM in the era of digital transformation is a system that connects technology, competencies, leadership, organizational culture, and performance management. Technology provides infrastructure and information, competencies ensure employees are able to utilize them, leadership directs change, culture supports acceptance and learning, while performance management directs the entire process to achieving organizational goals. Therefore, performance improvement does not rely enough on technology, but requires a fit between human capabilities and digital systems through continuous competency development, digital-based HR practices, leadership that supports change, and an adaptive organizational culture. The strategy needs to be directed at a strategic, adaptive, data-driven, and human-oriented approach to MSDM while still managing skills gaps, resistance to change, privacy, digital burden, and cultural readiness so that performance improvement can take place in a sustainable manner.

CONCLUSION

Based on the results of a literature study, human resource management (HRM) strategies have an important role in improving employee performance in the midst of digital transformation. Technological changes require employees to have digital literacy, adaptability, critical thinking, problem-solving, collaboration, and continuous learning. Therefore, competency development through upskilling, reskilling, needs-based training, and continuous learning is an important strategy to maintain employee readiness to face technological changes. Digital transformation also encourages HRM to shift from administrative functions to more strategic functions through the digital use of HRM, HRIS, HR analytics, digital learning, talent management, and data-based performance management systems. However, the effectiveness of technology still depends on competency readiness, leadership, organizational culture, and a supportive work system.

The literature synthesis shows that relevant MSDM strategies in the era of digital transformation are integrative by linking competency development, digitization of MSDM practices, leadership, organizational culture, performance management, and integrated use of technology. This approach places humans as the main part of transformation so that technology can be leveraged to strengthen productivity, innovation, effectiveness, and performance quality. Thus, the success of digital transformation is not only determined by technology but also by MSDM's ability to create alignment between technology, human competencies, organizational systems, and strategic goals to produce adaptive and sustainable employee performance.

Conflict of Interest

The author declares no conflict of interest.

Generative AI Statement

The author declares that no generative artificial intelligence (AI) tools were used in the preparation, writing, or editing of this manuscript.

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