

Digital Human Resource Management Practices in Enhancing Educational Staff Performance

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Abstract: The increasing integration of digital technology in organizational management has encouraged educational institutions to adopt Digital Human Resource Management (DHRM) practices to improve workforce performance. However, prior studies have predominantly focused on the corporate sector, with limited attention to the implementation of DHRM in educational settings and its impact on educational staff performance. Moreover, the research gap lies in the lack of explicit examination of organizational and individual factors influencing DHRM effectiveness. This study aims to analyze the contribution of DHRM practices to enhancing educational staff performance and to identify key supporting factors. This research employed a qualitative case study approach at an educational institution, with participants selected through purposive sampling. Data were collected through in-depth interviews, observations, and document analysis. The findings reveal that digital HR practices, including digital recruitment, online training, human resource information systems, and digital performance monitoring, improve administrative efficiency, strengthen competencies, and enhance transparency. The study also finds that staff digital literacy and accountability have increased. This study contributes by providing empirical evidence in the educational context and highlighting factors influencing DHRM success. It concludes that effective implementation requires organizational readiness, leadership support, and continuous professional development.

Keywords: *digital human resource management, digital transformation, educational staff performance, human resource management, organizational performance*

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INTRODUCTION

The rapid advancement of digital technology has significantly transformed organizational management, including human resource management in educational institutions. This transformation has encouraged the adoption of Digital Human Resource Management (DHRM), which integrates digital technologies such as human resource information systems, data analytics, and online training platforms into HR functions (Mandulangi, 2025; Rana & Kaur, 2024; Wahyoedi et al., 2023). These practices aim to enhance efficiency, improve decision-making, and strengthen employee performance. In the educational sector, the implementation of digital HRM is increasingly crucial as institutions are required to manage teaching and administrative staff in a flexible, data-

driven, and technology-supported environment (Sun & Jung, 2024; Zhang & Chen, 2024). Digital HR practices, including digital recruitment, online professional development, and technology-based performance evaluation, have become strategic tools to improve staff competence and organizational performance in response to the demands of the digital era (Apriyanto et al., 2025; Fachrilla et al., 2025).

The development of research in digital HRM highlights the important role of technology in improving organizational efficiency and supporting sustainable performance (Parry & Battista, 2023; Strohmeier, 2020). However, previous studies predominantly focus on corporate settings, emphasizing technological adoption and its impact on productivity and innovation, while limited studies explore how DHRM is implemented in educational institutions, particularly in managing educational staff (Afolayan, 2021; Ulfa et al., 2024). Moreover, prior research tends to examine digital transformation at the macro level, without explicitly analyzing how specific HR processes, such as recruitment, training, and performance evaluation, mediate the relationship between digital HR practices and staff performance. In addition, the roles of contextual factors such as organizational readiness, leadership support, and digital competencies are often discussed separately rather than examined holistically within the educational context (Meijerink et al., 2021; Nasir, 2025).

Based on these limitations, the research gap lies in the lack of in-depth, contextualized understanding of how DHRM practices operate within educational institutions and how they influence educational staff performance through specific HR mechanisms. Therefore, the novelty of this study is twofold: (1) it focuses on the educational context, which remains underexplored compared to the corporate sector, and (2) it employs a qualitative approach to provide a deeper and more comprehensive understanding of the implementation and impact of DHRM practices.

Accordingly, this study aims to explore how digital human resource management practices enhance the performance of educational staff. The research question guiding this study is: *How do Digital Human Resource Management practices improve the performance of educational staff?* The objective of this research is to analyze the implementation of digital HRM practices and examine their role in enhancing the performance of educational staff within educational organizations.

RESEARCH METHODS

This study employed a qualitative, embedded single-case design, which allows for in-depth exploration of a specific case while examining multiple units of analysis within the organization. The case selected was Yayasan Baitul Insan Khoir, located in Cianjur, Indonesia, chosen based on its active adoption of Digital Human Resource Management (DHRM) practices. The embedded units of analysis included administrative staff, HR personnel, and institutional leaders involved in implementing digital HR systems. This design enables a comprehensive understanding of how DHRM practices are implemented across different functional roles and how they contribute to educational staff performance.

The study population consisted of all educational staff at the institution. Informants were selected using purposive sampling with clearly defined criteria: (1) individuals who have direct involvement in HR processes (e.g., recruitment, training, or performance evaluation), (2) individuals who actively use digital HR systems in their daily work, (3) those with a minimum of one year of work experience to ensure sufficient familiarity with organizational practices, and (4) willingness to participate and provide in-depth information. Based on these criteria, 15 informants were selected, including school administrators, HR personnel, and educational staff. This variation allowed for data richness and multiple perspectives.

Data were collected through in-depth semi-structured interviews, non-participant observation, and document analysis. Interviews focused on participants' experiences, perceived benefits, challenges, and the impact of DHRM practices on performance. Observations were conducted to examine the actual use of digital HR systems, while institutional documents (e.g., HR policies, training reports, and system records) were analyzed to support data triangulation.

Data analysis followed a thematic analysis approach with systematic coding procedures. First, I reviewed all interview transcripts to familiarize myself with the data. Second, open coding was conducted to identify meaningful units related to DHRM practices and staff performance. Third, codes were grouped into categories through axial coding, linking related concepts such as efficiency, competency development, and performance monitoring. Fourth, selective coding was applied to develop overarching themes that explain the relationship between DHRM implementation and staff performance. Finally, themes were interpreted to generate insights and answer the research question.

To ensure trustworthiness, this study applied credibility, dependability, and confirmability strategies, including data triangulation (interviews, observations, documents), member checking to validate participants' responses, and peer debriefing to minimize researcher bias. These procedures strengthened the validity and reliability of the findings.

RESULTS AND DISCUSSION

Results

The findings reveal that the institution has gradually adopted digital technologies to support various human resource management activities. Digital HR practices primarily simplify administrative processes, facilitate communication, and support more efficient decision-making in managing staff. The transition from manual to digital systems has allowed the institution to manage employee data more systematically and reduce the time required to complete administrative tasks.

The use of digital HR tools also improves employees' access to HR services. Staff members can access information related to their work, training schedules, and performance evaluations through digital platforms. As a result, HR processes become more transparent and easier to manage for both employees and administrators.

Table 1. Digital Human Resource Management Practices and Their Impact on Staff

Digital HRM Practice	Description of Implementation	Observed Impact
Digital Recruitment	Use of online platforms and digital communication channels for job announcements and candidate screening	Faster recruitment process and improved candidate quality
Online Training and Development	Use of webinars, digital learning platforms, and online workshops	Increased competencies and digital literacy
HR Information System	Digital management of employee data, attendance, and administrative records	Improved administrative efficiency
Digital Performance Monitoring	Use of digital tools to track work activities and evaluate performance	Increased transparency and accountability

Source: Data processed by the researcher (2026)



The results indicate that integrating digital systems into HR management has helped streamline organizational processes. Administrative staff reported that tasks such as recording attendance, documenting employee records, and managing internal communication can now be completed more efficiently through digital platforms.

One of the key digital HR practices identified in the study is the use of digital recruitment systems. Recruitment activities are conducted through online platforms that allow the institution to publish job vacancies, receive applications electronically, and communicate with potential candidates through digital channels. This system reduces the need for manual document submission and simplifies the screening process.

The digital recruitment process also enables the institution to reach a larger number of potential applicants compared with traditional recruitment methods. Informants reported that using digital recruitment platforms increases the diversity of applicants and improves the likelihood of selecting candidates with relevant competencies. In addition, the recruitment process becomes more efficient because HR managers can quickly review application documents and shortlist candidates based on predetermined criteria.

Another important finding concerns the implementation of digital training programs to enhance the competencies of educational staff. The institution organizes online training sessions, webinars, and digital workshops to support continuous professional development. These programs focus on improving digital literacy, administrative skills, and work efficiency.

Staff members indicated that digital training programs offer greater flexibility than conventional training methods. Employees can participate in training sessions without leaving their workplace and access training materials through digital platforms. This flexibility allows staff members to improve their competencies while continuing to perform their daily responsibilities.

Table 2. Benefits of Digital Training Programs

Aspect	Observed Outcome
Digital Skills	Increased ability to operate digital tools and platforms
Work Efficiency	Faster completion of administrative and academic tasks
Professional Development	Improved knowledge related to educational administration
Collaboration	Increased communication among staff members

Source: Data processed by the researcher (2026)

The findings show that digital training programs not only enhance individual competencies but also encourage collaboration among staff members. Through digital communication tools, employees can share knowledge and exchange information related to work activities.

The institution also utilizes a Human Resource Information System (HRIS) to manage employee data and administrative processes. This system stores various types of personnel information, including employment records, attendance data, training participation, and performance reports. The digital management of these records helps reduce administrative errors and improves the accuracy of HR data.

Participants reported that the HRIS simplifies the process of accessing employee information and preparing administrative reports. HR administrators can quickly retrieve data needed for performance evaluations, workforce planning, or institutional reporting. This efficiency allows the HR department to focus more on strategic activities, such as staff development and organizational planning, rather than on routine administrative work.

Digital performance monitoring emerged as another significant aspect of DHRM implementation. The institution uses digital tools to monitor employee activities, record attendance, and evaluate work performance. These systems allow managers to review staff performance using measurable indicators, such as task completion, participation in training programs, and adherence to institutional policies.

Implementing digital monitoring systems enhances transparency in the performance evaluation process. Staff members reported that digital performance systems provide clearer feedback regarding their work outcomes. As performance data are recorded systematically, employees are more aware of their responsibilities and performance expectations.

In addition, digital monitoring systems allow managers to identify performance issues more quickly and provide timely feedback to employees. This continuous monitoring process supports the development of a more responsive and accountable organizational environment.

Overall, the results demonstrate that Digital Human Resource Management practices play a crucial role in supporting the performance of educational staff. The implementation of digital recruitment systems improves the efficiency and quality of staff selection. Digital training programs contribute to the development of professional competencies and digital literacy among employees. The use of human resource information systems enhances administrative efficiency and data accuracy, while digital performance monitoring strengthens transparency and accountability in performance evaluation.

These findings illustrate that integrating digital technologies into human resource management processes enables educational institutions to manage their workforce more effectively while supporting the continuous development of staff performance in the digital era.

Discussion

This study aimed to explain how Digital Human Resource Management (DHRM) practices contribute to improving the performance of educational staff. The findings demonstrate that DHRM should not be understood merely as a technological shift but rather as a socio-technical transformation that reshapes the interaction between human resources, technology, and organizational processes. In this regard, the results can be critically interpreted through the lens of the Resource-Based View (RBV) and Dynamic Capability Theory, which emphasize that organizational performance is not driven solely by technology but by the ability to integrate, develop, and reconfigure internal resources. The findings indicate that digital HR practices enhance performance when embedded within organizational capabilities, such as digital competencies, leadership support, and an adaptive culture.

First, the role of digital recruitment can be theoretically explained through the RBV perspective, where access to a broader talent pool enhances the quality of human capital as a strategic resource. While prior studies highlight efficiency and transparency, this study provides a more nuanced understanding by showing that digital recruitment effectiveness depends on the alignment between technological tools and strategic HR criteria. This supports the argument that technology acts as an enabler rather than a determinant of performance, thereby extending the existing literature, which tends to adopt a technologically deterministic view.

Second, the findings on digital training and professional development can be interpreted using Human Capital Theory and Learning Organization Theory. Digital learning platforms facilitate continuous skill development, which strengthens employees' capacity to respond to changing organizational demands. However, this study critically shows that technological availability alone does not guarantee learning outcomes; instead, intrinsic motivation and a learning culture mediate. This extends prior research by positioning digital HRM not only as a tool for skill enhancement but also as a mechanism for fostering a sustainable learning ecosystem within educational institutions.

Third, the implementation of digital performance monitoring systems aligns individual behavior with organizational goals, reflecting the principles of Performance Management Theory and Control Theory. The findings confirm that digital systems

improve objectivity and accountability; however, they also reveal a paradox consistent with socio-technical perspectives: increased transparency may simultaneously enhance performance and generate perceptions of surveillance. This duality highlights that the effectiveness of digital monitoring depends on organizational trust, communication, and leadership framing, thereby challenging purely technical interpretations of performance systems.

Furthermore, the study identifies digital competence as a critical mediating factor linking DHRM practices and employee performance. This aligns with Dynamic Capability Theory, which posits that organizations must continuously develop new competencies to remain competitive in rapidly changing environments. The findings suggest that digital HRM contributes to performance not directly, but through its role in enabling employees to acquire and apply digital skills, thus reinforcing the argument that capability development is central to digital transformation.

The challenges identified, including disparities in digital literacy and infrastructural limitations, further support the Technology-Organization-Environment (TOE) framework, which emphasizes that technological adoption is influenced by organizational readiness and environmental context. This study extends the framework by demonstrating that, within educational institutions, leadership commitment and cultural adaptation are equally critical in overcoming resistance and ensuring successful implementation.

From a theoretical perspective, this study makes several contributions. First, it extends DHRM literature by integrating RBV, Dynamic Capability, and socio-technical perspectives to explain how digital HR practices influence performance beyond technological determinism. Second, it provides a contextualized understanding within the education sector, which has been underexplored compared to corporate settings. Third, it offers a process-based explanation by highlighting how specific HR functions (recruitment, training, performance management) act as mechanisms through which DHRM affects employee performance.

From a practical perspective, the findings imply that educational institutions should adopt a holistic approach to digital HR transformation by aligning technological systems with human resource development strategies, organizational culture, and leadership practices. Digital transformation should therefore be managed as an organizational change process rather than a purely technical implementation.

Overall, this study reinforces the argument that the success of DHRM lies not in the technology itself, but in the organization's ability to integrate technology with human and organizational capabilities strategically.

CONCLUSION AND RECOMMENDATIONS

This study concludes that Digital Human Resource Management (DHRM) practices enhance the performance of educational staff not merely through administrative efficiency, but through the transformation of HR processes into more strategic, transparent, and competency-driven systems. The findings confirm that digital recruitment, online training, and digital performance monitoring function as key mechanisms that improve staff competence, accountability, and adaptability. However, their effectiveness depends on organizational readiness, leadership support, and employees' digital competencies.

From a theoretical perspective, this study contributes by extending digital HRM literature beyond a technological-deterministic view, demonstrating that human and organizational capabilities mediate the impact of DHRM on performance. It also provides contextual enrichment by empirically validating DHRM implementation within the educational sector, which has been underexplored compared to corporate settings.

From a practical perspective, the study highlights that educational institutions should prioritize (1) the integration of digital HR systems with competency development programs, (2) continuous digital skills training for staff, and (3) leadership-driven strategies to foster a supportive digital culture. These targeted actions are essential to maximize the effectiveness of digital HR transformation.

Despite its contextual limitations, this study offers a focused understanding of how DHRM practices can be strategically leveraged to improve educational staff performance and provides a foundation for future research across broader institutional settings.

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