

# Digital HRM Transformation Improves Employee Performance through Digital Competence

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## ABSTRACT

**Purpose** – This study investigates how digital transformation in human resource management contributes to employee performance by emphasizing the role of digital competence within organizational work systems. The study is conducted in the context of organizations in Medan that have increasingly adopted digital-based HR practices.

**Design/methodology/approach** – A quantitative explanatory approach was employed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Data were collected through questionnaires distributed to employees who had experience using digital HR systems, including electronic attendance, online training platforms, and digital performance evaluation systems.

**Finding/Results** – The findings demonstrate that digital HRM transformation positively influences employee digital competence and employee performance. Digital competence also shows a significant contribution to improving employee performance. In addition, the mediation analysis confirms that digital competence partially mediates the relationship between digital HRM transformation and employee performance, indicating that technological implementation becomes more effective when supported by employees' digital capabilities.

**Originality/Value** – This study offers a broader understanding of digital transformation by positioning digital competence as a strategic organizational capability rather than merely an individual technical skill. The findings provide practical insights for organizations seeking to align technological transformation with human capability development in order to achieve sustainable performance improvement

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## **1. Introduction**

Digital transformation has become one of the most influential organizational developments in contemporary human resource management (HRM). Across various organizational sectors, digital technologies are increasingly integrated into strategic HR activities such as recruitment systems, employee development, communication processes, and performance evaluation mechanisms. The growing adoption of digital HR systems reflects organizations' efforts to create more adaptive, efficient, and data-oriented work environments capable of responding to rapidly changing business conditions. Consequently, digital transformation in HRM should not merely be understood as technological modernization, but rather as a broader organizational transition that reshapes work processes, employee interaction patterns, and organizational capability development (Strohmeier, 2020; Vial, 2019).

The increasing implementation of digital HR systems has also intensified academic discussion regarding their impact on employee performance. Previous studies generally indicate that digital transformation contributes to operational efficiency, faster information processing, and improved organizational coordination. Nevertheless, empirical findings regarding the relationship between digital transformation and employee performance remain inconsistent across organizational contexts (Margherita & Bua, 2021). In many organizations, technological systems have been successfully implemented, yet improvements in employee performance are not always achieved optimally. Employees frequently encounter difficulties in adapting to digital work systems, utilizing technological platforms effectively, or integrating digital tools into their daily work activities. This condition suggests that technological implementation alone is insufficient to guarantee meaningful performance improvement. Instead, the effectiveness of digital transformation appears to depend heavily on the organization's ability to develop employee capability alongside technological change.

Within this context, employee digital competence becomes an increasingly important organizational capability. Digital competence refers not only to employees' technical ability to operate digital technologies, but also to their adaptability, digital problem-solving capacity, information utilization skills, and capability to integrate technology effectively into work processes. Employees possessing strong digital competence are generally more capable of adjusting to technological changes, utilizing digital systems productively, and responding more effectively to evolving organizational demands (van Laar et al., 2020). Conversely, limited digital competence may reduce the effectiveness of digital transformation because employees are unable to fully optimize the technological systems implemented within organizations. Therefore, digital competence should not merely be viewed as an individual technical skill, but rather as a strategic organizational capability that enables digital transformation initiatives to generate sustainable performance outcomes.

The importance of employee digital competence becomes more visible in emerging urban organizational environments such as Medan, Indonesia. In recent years, organizations in Medan have increasingly accelerated the implementation of digital HR systems as part of broader organizational modernization initiatives. However, employee readiness toward digital transformation remains uneven across organizations. Variations in technological exposure, educational background, work experience, and organizational learning opportunities contribute to differences in employees' digital competence levels. Under these conditions, the implementation of digital HR systems often produces unequal organizational outcomes. While some organizations experience improvements in operational efficiency and work coordination, others continue to face challenges in achieving meaningful employee

performance improvement despite substantial technological investments. This phenomenon reflects a transitional organizational environment in which the success of digital transformation depends not only on technology adoption, but also on workforce capability development. In many organizations, employee performance remains a critical concern despite the implementation of digital work systems.

The presence of digital technologies has not consistently resulted in improvements in work quality, productivity, timeliness, or overall work effectiveness. In several cases, employees continue to experience difficulties in adapting to digitally driven work processes, particularly when technological implementation is not accompanied by sufficient capability development. To provide a clearer overview of the organizational conditions underlying this study, several employee performance issues observed in organizations implementing digital HR systems are summarized in Table 1.

**Table 1.** Employee Performance Issues

<b>Performance Aspect</b>	<b>Employee Performance Issues</b>
Work Quality	The quality of employees' work has not shown significant improvement despite the implementation of digital work systems.
Work Quantity	Productivity tends to remain administrative in nature and is not fully reflected in core work outputs.
Timeliness	Digital systems have not yet effectively encouraged employees to complete tasks within specified time targets.
Work Effectiveness	Some employees still experience difficulties in utilizing digital technologies optimally to support work effectiveness.
Work Initiative	Employees' initiative and independence have not developed optimally in digitally driven work environments.

Source: Observation Results (2026)

From a theoretical perspective, the Resource-Based View (RBV) provides an important framework for explaining this phenomenon. RBV emphasizes that organizational advantage is not determined solely by the ownership of technological resources, but by the organization's ability to effectively integrate and utilize those resources through human capability development (Barney, 1991). In the context of digital transformation, technology itself does not automatically generate organizational value unless employees possess adequate competence to utilize digital systems effectively. Accordingly, digital competence may be understood as a strategic organizational resource that enables organizations to transform technological investment into meaningful performance improvement. Although previous studies have examined the relationship between digital transformation and employee performance, many of them continue to position digital competence primarily as an individual-level technical attribute. As a result, limited attention has been given to understanding digital competence as an organizational mechanism that explains how digital HRM transformation produces performance outcomes. Existing studies also remain heavily concentrated in highly digitalized organizational environments, while empirical evidence from emerging urban contexts remains relatively limited. Consequently, there is still insufficient understanding regarding how organizations undergoing uneven digital readiness manage technological transformation and workforce capability development simultaneously. Based on these gaps, the present study seeks to examine the relationships among digital HRM transformation, employee digital competence, and employee performance within

organizations in Medan. More specifically, this study positions digital competence as a mediating organizational capability that explains how digital HRM transformation contributes to employee performance improvement. The originality of this study lies in its attempt to reposition digital competence from a purely technical individual skill into a strategic organizational capability embedded within digital work systems. In addition, this study contributes empirical insight from an emerging urban organizational environment where digital transformation is actively developing while employee technological readiness remains uneven. Through this perspective, the study extends the discussion on digital HRM transformation beyond technological implementation by emphasizing the strategic importance of workforce capability development in achieving sustainable organizational performance.

## **2. Literature Review & Hypothesis Development**

### **2.1. Digital Transformation in Human Resource Management**

Digital transformation in human resource management (HRM) represents a fundamental shift in how organizations design, implement, and evaluate HR practices through the integration of digital technologies. This transformation goes beyond the mere adoption of technological tools, as it involves the restructuring of work processes, decision-making systems, and employee interactions within organizations. The utilization of digital platforms in recruitment, training, performance evaluation, and communication enables organizations to operate with greater efficiency, transparency, and flexibility. However, the effectiveness of digital HRM transformation is not solely determined by technological sophistication, but also by how well organizations align digital initiatives with human resource capabilities (Mekonnin & Ayenew, 2025; Strohmeier, 2020; Verhoef et al., 2021). From a strategic perspective, digital transformation strengthens internal organizational capabilities by facilitating knowledge sharing, accelerating information flows, and supporting data-driven decision-making. In line with the Resource-Based View (RBV), technology itself does not guarantee competitive advantage unless it is effectively integrated with human competencies (Barney, 1991; Wang et al., 2024). Therefore, digital HRM transformation should be viewed as a socio-technical process in which technological systems and human resources interact dynamically to create organizational value.

### **2.2. Employee Digital Competence**

Employee digital competence refers to an individual's ability to effectively utilize digital technologies in performing work-related tasks. This competence encompasses not only technical skills but also cognitive abilities, adaptability, and problem-solving capacity in digital environments. In contemporary organizations, digital competence has become an essential component of human capital, as employees are required to continuously interact with digital systems in their daily work activities. Individuals with strong digital competence are more capable of interpreting digital information, adapting to new technologies, and optimizing system utilization to enhance productivity (Trenerry et al., 2021; van Laar et al., 2020). Moreover, digital competence plays a critical role in bridging the gap between technological availability and actual performance outcomes. Even when advanced digital systems are implemented, their effectiveness largely depends on the extent to which employees are able to utilize them efficiently. Prior research suggests that employees with higher levels of digital competence tend to demonstrate better work performance, as they can perform tasks more independently, accurately, and efficiently (Ingsih et al., 2024; Pacheco &

Coello-Montecel, 2023). Digital competence is also shaped by continuous interaction with digital technologies, which enables employees to develop relevant skills and adapt to changing work environments (Bikse et al., 2021). Thus, digital competence can be understood as a strategic capability that enhances both individual and organizational performance.

### **2.3. Employee Performance**

Employee performance reflects the degree to which individuals are able to achieve work outcomes in accordance with organizational objectives. It is typically assessed through multiple dimensions, including work quality, quantity, timeliness, effectiveness, and initiative. In digitally driven work environments, performance is no longer determined solely by traditional competencies, but also by the ability to adapt to technological changes and effectively utilize digital systems (Chatterjee et al., 2023; Hendri et al., 2024). As organizations increasingly rely on digital technologies, employees are expected to demonstrate greater flexibility, responsiveness, and efficiency in completing their tasks. Digital tools enable faster information processing, improved coordination, and more accurate performance monitoring, which can enhance overall productivity. The increasing reliance on digital technologies in the workplace also introduces new dynamics that influence employee performance, including both positive and negative technological impacts (Tarafdar et al., 2019). However, the extent to which these benefits are realized depends on employees' readiness and capability to engage with such technologies. Therefore, employee performance in the digital era is closely linked to both technological and human factors.

The relationship among digital HRM transformation, employee digital competence, and employee performance should not be understood as isolated organizational phenomena. Digital transformation fundamentally changes how organizational work systems operate by increasing employees' interaction with digital technologies in everyday work activities. Through continuous exposure to digital platforms, employees gradually develop the capability to adapt to technological changes, utilize digital information effectively, and integrate digital tools into work processes. In this context, digital competence emerges not merely as an individual technical attribute, but as an organizational capability that enables technological systems to function effectively within the workplace. Consequently, the effectiveness of digital HRM transformation in improving employee performance depends largely on how organizations develop employee competence alongside technological implementation. This perspective highlights that digital competence serves as the operational mechanism linking digital transformation initiatives with sustainable performance outcomes.

### **2.4. The Effect of Digital HRM Transformation on Digital Competence**

The implementation of digital HRM transformation creates an environment where employees are continuously exposed to digital technologies in their work processes. Through the use of digital systems in recruitment, training, and performance management, employees are encouraged to interact with technology more frequently, which gradually enhances their digital competence. This ongoing interaction functions as a learning mechanism that allows employees to develop their technological skills and adaptability over time (Blanka et al., 2022; Zhang & Chen, 2023). In addition, organizations often complement digital transformation initiatives with training programs and digital learning platforms, further supporting the development of employee competence. The more extensively digital technologies are integrated into HRM practices, the greater the opportunities for employees to improve their digital capabilities. Therefore, digital HRM transformation can be considered a key driver in enhancing employee digital competence.

**H1:** Digital transformation in human resource management positively affects employee digital competence.

### **2.5. The Effect of Digital HRM Transformation on Employee Performance**

Digital transformation in HRM contributes to the development of more structured, efficient, and transparent work systems. The use of digital technologies facilitates faster communication, reduces administrative errors, and enables employees to manage their tasks more effectively. As a result, digital transformation has the potential to directly improve employee performance by enhancing productivity and work efficiency (Al-kharabsheh et al., 2023; Bhardwaj & Chopra, 2025). However, empirical findings suggest that the direct impact of digital transformation on performance is not always consistent across different organizational contexts. In some cases, the expected improvements in performance are not fully realized due to limitations in employee capability or organizational readiness. This indicates that while digital transformation provides structural advantages, its effectiveness in improving performance depends on additional supporting factors. Recent studies also highlight that digital transformation in HRM can significantly enhance employee performance when supported by organizational readiness and digital capability development (Khan et al., 2022).

**H2:** Digital transformation in human resource management positively affects employee performance.

### **2.6. The Effect of Digital Competence on Employee Performance**

Digital competence plays a crucial role in determining how effectively employees utilize digital technologies in their work. Employees with strong digital competence are better equipped to adapt to technological changes, process information efficiently, and complete tasks with higher accuracy and speed. These capabilities contribute to improved work quality, productivity, and overall performance (Pacheco & Coello-Montecel, 2023; van Laar et al., 2020). In contrast, employees with limited digital competence may face difficulties in utilizing digital systems, which can hinder their performance. Therefore, digital competence can be considered a key determinant of employee performance in technology-driven work environments.

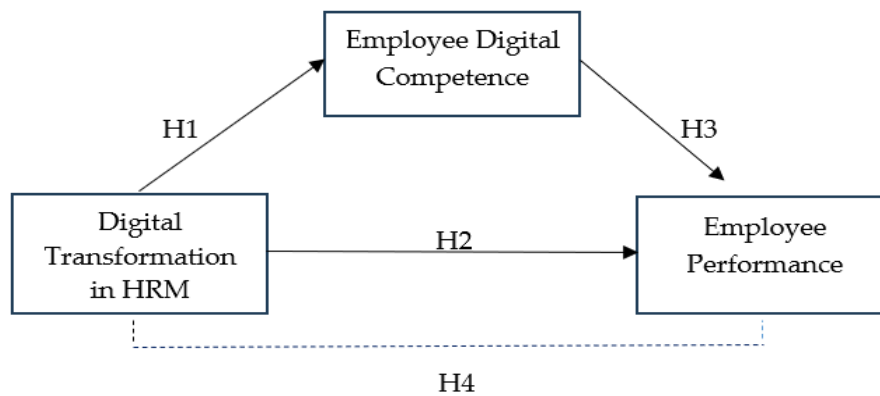
**H3:** Employee digital competence positively affects employee performance.

### **2.7. The Mediating Role of Digital Competence**

Digital transformation in HRM does not always lead directly to improved employee performance, particularly when employees lack the necessary competence to effectively utilize digital technologies. In this context, digital competence functions as an intervening mechanism that explains how digital transformation influences performance outcomes. When organizations implement digital systems while simultaneously enhancing employee competence, the impact on performance becomes more substantial and sustainable (Blanka et al., 2022; Wang et al., 2024). This suggests that digital competence is not merely an individual attribute, but a strategic factor that determines the success of digital transformation initiatives. By strengthening employee competence, organizations can ensure that technological investments are translated into meaningful performance improvements.

**H4:** Employee digital competence mediates the relationship between digital transformation in human resource management and employee performance

**Figure 1.** Research Framework



Source: Data processed (2026)

The conceptual framework developed in this study provides the foundation for hypothesis formulation and informs the methodological approach employed in the subsequent section.

### 3. Methodology

This study adopts a quantitative approach with an explanatory research design to examine the causal relationships among digital transformation in human resource management (HRM), employee digital competence, and employee performance. The quantitative approach is considered appropriate as this study aims to test both direct and indirect relationships among variables within a structured conceptual model. Meanwhile, the explanatory design is employed to provide empirical evidence regarding the proposed hypotheses and to clarify the underlying mechanisms linking the variables. The study was conducted among employees working in various organizations in Medan that have implemented digital HRM practices. The population consists of full-time employees with a minimum of one year of work experience and prior exposure to digital HR systems, including electronic attendance, digital recruitment platforms, online training systems, and electronic performance evaluation tools. These criteria were applied to ensure that respondents possess sufficient experience relevant to the research variables.

A purposive sampling technique was employed to select respondents based on their relevance to the research objectives. The sample size ranged from 200 to 250 respondents, which is considered adequate for analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM). The use of PLS-SEM is justified by its ability to analyze complex structural relationships, including mediation effects, while accommodating relatively small to medium sample sizes and non-normal data distributions (Hair et al., 2021). In addition, PLS-SEM is particularly suitable for predictive-oriented research and theory development in management studies (Henseler, 2015). Data were collected using a structured questionnaire developed based on measurement indicators adapted from prior studies. Each item was measured using a five-point Likert scale ranging from strongly disagree to strongly agree. Before the main data collection, a pilot test was conducted to ensure the clarity, validity, and contextual relevance of the measurement items. This process helped refine the instrument to better reflect the organizational context in which the study was conducted.

The data analysis was performed in two main stages: evaluation of the measurement model and assessment of the structural model. The measurement model was evaluated to assess construct validity and reliability using criteria such as outer loadings, composite reliability, Cronbach's alpha, and Average Variance Extracted (AVE). Indicators with loadings above 0.70

were considered acceptable, indicating adequate convergent validity. Subsequently, the structural model was assessed to examine the relationships among variables using path coefficients, t-statistics, and p-values obtained through bootstrapping procedures. Mediation analysis was conducted to examine the indirect effect of digital competence on the relationship between digital HRM transformation and employee performance. The significance of mediation was evaluated by analyzing indirect path coefficients using bootstrapping techniques. All statistical analyses were conducted in accordance with established guidelines for PLS-SEM to ensure the robustness and reliability of the findings. All research procedures were conducted in accordance with ethical standards. Participation was voluntary, and respondents were assured of the confidentiality and anonymity of their responses. The collected data were used solely for academic purposes and were analyzed in aggregate form without identifying individual participants.

### 3.1. Measurement of Variables

The variables in this study were operationalized based on established constructs derived from prior literature. Digital transformation in HRM was measured through the extent to which digital technologies are integrated into HR functions, including digital recruitment, digital training, performance management systems, and HR information systems (HRIS). Employee digital competence was measured based on individuals' ability to utilize digital technologies effectively, including aspects of digital knowledge, skills, adaptability, information utilization, and problem-solving capability. Meanwhile, employee performance was assessed using indicators such as work quality, quantity, timeliness, effectiveness, and initiative.

The measurement items were adapted and refined to ensure both content validity and contextual relevance to the organizational setting.

**Table 2.** Measurement of Variables

Variable	Indicators	Description	Scale	Source
Digital HRM Transformation	Digital Recruitment	Use of digital platforms in recruitment processes	Likert (1–5)	Adapted from (Verhoef et al., 2021; Zhang & Chen, 2023)
	Digital Training	Use of digital tools in employee training and development		
	Digital Performance Management	Use of digital systems in performance evaluation		
	HR Information Systems (HRIS)	Utilization of HRIS for managing employee data		
	Digital Communication	Use of digital tools for internal communication		
	Digital Competence	Digital Knowledge		
	Digital Skills	Ability to operate digital tools effectively	Likert (1–5)	Adapted from (Ingsih et al., 2024;

	Digital Adaptability	Ability to adjust to technological changes		Trenerry et al., 2021)
	Digital Information Utilization	Ability to use digital information for work tasks		
	Digital Problem-Solving	Ability to solve work-related problems using technology		
Employee Performance	Work Quality	Quality of work outcomes	Likert (1–5)	Adapted from
	Work Quantity	Volume of work completed		(Hendri et al., 2024)
	Timeliness	Ability to complete tasks within deadlines		
	Work Effectiveness	Effectiveness in task execution		
	Work Initiative	Initiative in performing job responsibilities		

Source: Data processed (2026)

#### 4. Results

##### 4.1. Measurement Model Evaluation

The measurement model was evaluated to ensure that all constructs met the required standards of validity and reliability within the Partial Least Squares Structural Equation Modeling (PLS-SEM) framework. Convergent validity was assessed by examining the outer loadings of each indicator, with a recommended threshold of 0.70. The results indicate that all indicators exceeded this threshold, confirming that they adequately represent their respective constructs. Construct reliability was evaluated using Cronbach’s alpha and composite reliability. As presented in Table 3, all constructs demonstrated values above the recommended minimum of 0.70, indicating strong internal consistency. In addition, the Average Variance Extracted (AVE) values for all constructs were above 0.50, further supporting convergent validity.

**Table 3.** Reliability and Validity Results

Variable	Cronbach’s Alpha	Composite Reliability	AVE
Digital HRM Transformation	0.972	0.975	0.799
Digital Competence	0.979	0.981	0.840
Employee Performance	0.975	0.978	0.816

Source: Data processed (2026)

Overall, these results confirm that the measurement model satisfies the required criteria for validity and reliability and is therefore suitable for further structural model analysis.

**4.2. Structural Model Evaluation**

The structural model was assessed to examine the explanatory power of the proposed model. The coefficient of determination ( $R^2$ ) was used to evaluate the extent to which endogenous variables are explained by the exogenous variables. As shown in Table 4, digital HRM transformation explains 64.0% of the variance in digital competence ( $R^2 = 0.640$ ). Furthermore, digital HRM transformation together with digital competence explains 71.3% of the variance in employee performance ( $R^2 = 0.713$ ). These values indicate that the model has substantial explanatory and predictive power

**Table 4.** Coefficient of Determination ( $R^2$ )

Variable	R Square	Adjusted R Square
Digital Competence	0.640	0.638
Employee Performance	0.713	0.711

Source: Data processed (2026)

**4.3. Hypothesis Testing**

Hypothesis testing was conducted using the bootstrapping procedure to obtain path coefficients, t-statistics, and p-values. A relationship is considered significant when the t-statistic exceeds 1.96 at a 5% significance level. The results, presented in Table 5, show that all hypothesized relationships are positive and statistically significant.

**Table 5.** Path Coefficients

Relationship	Coefficient	T Statistic	P Value	Result
Digital HRM → Digital Competence	0.800	36.007	0.000	Supported
Digital HRM → Employee Performance	0.279	4.559	0.000	Supported
Digital Competence → Employee Performance	0.604	10.163	0.000	Supported

Source: Data processed (2026)

These findings indicate that digital HRM transformation significantly enhances digital competence and directly improves employee performance. In addition, digital competence plays a critical role in strengthening performance outcomes.

**4.4. Mediation Analysis**

The mediation effect of digital competence was examined by analyzing the indirect relationship between digital HRM transformation and employee performance. The results show that the indirect effect is significant, with a coefficient of 0.483, a t-statistic of 9.854, and a p-value below 0.001.

**Table 6.** Indirect Effect

Relationship	Coefficient	T Statistic	P Value	Result
Digital HRM → Digital Competence → Employee Performance	0.483	9.854	0.000	Supported

Source: Data processed (2026)

Furthermore, the direct effect of digital HRM transformation on employee performance remains significant even after the inclusion of the mediator. This indicates that digital competence acts as a partial mediator in the relationship

## **5. Discussion**

The findings of this study provide important insight into how digital transformation in human resource management (HRM) influences employee capability development and performance outcomes within digitally evolving organizational environments. The results indicate that digital transformation should not merely be interpreted as technological modernization, but rather as an organizational process that restructures work systems, interaction patterns, and capability development mechanisms. In this context, the effectiveness of digital transformation depends not only on technological implementation, but also on employees' ability to adapt to digitally integrated work environments.

The findings demonstrate that digital HRM transformation plays a substantial role in shaping employee digital competence within organizational work systems. This relationship indicates that competence development increasingly emerges through continuous interaction between employees and digital technologies embedded in everyday organizational activities. The implementation of digital HR systems does not merely introduce new technological tools into the workplace, but also restructures how employees communicate, access information, perform tasks, and adapt to organizational processes (Blanka et al., 2022; Strohmeier, 2020). As employees become more frequently exposed to digital platforms in recruitment systems, performance monitoring, communication channels, and learning activities, they gradually develop stronger technological adaptability and digital capability.

This finding suggests that employee digital competence is not developed solely through formal training programs, but is also formed through repeated technological engagement within digitally transformed work environments. In this context, digital transformation creates an adaptive organizational learning environment in which employees continuously adjust their work behavior according to technological demands. Consequently, organizations implementing digital HR systems indirectly encourage competence development by increasing employees' dependency on digital interaction and technology-based work processes (Trenerry et al., 2021; Zhang & Chen, 2023).

The findings also reveal that digital competence should not merely be interpreted as an individual technical skill. Instead, it represents a broader organizational capability that reflects employees' readiness to operate effectively within digitally integrated work systems. This perspective strengthens the argument that the success of digital transformation depends not only on technological investment, but also on organizations' ability to create work environments that facilitate continuous capability development. Therefore, digital HRM transformation and employee competence development should be understood as interconnected organizational processes rather than separate managerial initiatives. This finding also reinforces the Resource-Based View perspective, which emphasizes that organizational resources only generate value when supported by appropriate human capability development (Barney, 1991; Wang et al., 2024).

Furthermore, the results indicate that digital HRM transformation positively influences employee performance, although the magnitude of the direct relationship remains relatively moderate compared to the influence of digital competence. This finding suggests that digital technologies contribute to improving organizational efficiency, communication flow,

coordination mechanisms, and work process integration. Through digital systems, employees are able to access information more quickly, perform administrative activities more efficiently, and complete work processes in a more structured manner (Al-kharabsheh et al., 2023; Bhardwaj & Chopra, 2025). However, the findings also imply that technological implementation alone is insufficient to produce optimal performance outcomes when employees are unable to utilize digital systems effectively.

The relatively moderate direct effect of digital HRM transformation on employee performance indicates that the organizational impact of digital technologies is highly dependent on supporting human capabilities. In many organizations, technological systems may already be available, yet employees still encounter difficulties in adapting to digital work procedures or integrating technology effectively into task execution. Under such conditions, digital transformation may improve operational systems structurally, but the resulting performance improvement remains limited when employee capability development does not progress simultaneously. This finding reflects that successful digital transformation requires alignment between technological infrastructure and workforce readiness.

The findings further demonstrate that employee digital competence has a strong and significant effect on employee performance. This result highlights that employees' ability to utilize digital technologies effectively has become an increasingly important determinant of work performance within digitally driven organizational environments. Employees possessing stronger digital competence are generally more capable of adapting to technological changes, processing information efficiently, solving work-related problems using digital tools, and integrating technology into daily operational activities (Pacheco & Coello-Montecel, 2023; van Laar et al., 2020). As a result, they are able to perform work tasks more accurately, efficiently, and productively. More importantly, the findings suggest that digital competence functions not only as a technical capability, but also as an adaptive organizational resource. Employees with stronger digital competence are more responsive to organizational change because they possess greater confidence and flexibility in operating within digitally integrated work environments. This condition enables employees to manage technological complexity more effectively while maintaining work productivity and coordination quality. Consequently, digital competence becomes increasingly important as organizations continue to rely on digital systems in managing organizational activities and employee performance.

The mediation analysis further confirms that digital competence partially mediates the relationship between digital HRM transformation and employee performance. This finding demonstrates that digital transformation does not automatically generate meaningful performance outcomes unless employees possess adequate capability to utilize digital technologies effectively. In this context, digital transformation creates organizational potential through technological systems, while employee digital competence functions as the operational mechanism that enables such technological potential to be translated into actual performance improvement. The presence of partial mediation also indicates that digital HRM transformation influences employee performance through both direct and indirect pathways. On the one hand, digital technologies improve organizational systems, communication processes, and work efficiency directly. On the other hand, digital transformation simultaneously contributes to employee competence development, which subsequently strengthens performance outcomes. This finding highlights that the organizational effectiveness of digital transformation depends not only on technological adoption, but also

on organizations' ability to develop workforce capability alongside digital implementation processes.

The findings of this study also provide important insight into the organizational conditions experienced in emerging urban environments such as Medan. Unlike organizations operating within highly digitalized environments, many organizations in Medan continue to experience uneven employee readiness toward technological transformation. Variations in technological exposure, digital literacy, organizational learning opportunities, and employee adaptability create different levels of digital competence among employees. Under these conditions, the effectiveness of digital transformation becomes highly dependent on how organizations manage workforce capability development in parallel with technological implementation. Consequently, the findings contribute to a broader understanding that digital transformation within emerging organizational contexts requires not only technological investment, but also continuous organizational efforts to strengthen employee adaptability and digital readiness. From a theoretical perspective, this study extends the Resource-Based View (RBV) by emphasizing that digital competence should be understood as a strategic organizational capability rather than merely an individual technical attribute. The findings demonstrate that technological resources alone are insufficient to generate organizational value unless supported by employees capable of effectively utilizing digital systems within organizational work processes. Therefore, digital competence functions as an important organizational mechanism that connects digital transformation initiatives with sustainable employee performance outcomes. This perspective contributes to the growing discussion regarding the human dimension of digital transformation, particularly in organizational environments undergoing uneven technological readiness and capability development.

## **6. Conclusion**

This study aims to examine the relationships among digital transformation in human resource management (HRM), employee digital competence, and employee performance within organizations in Medan. The findings indicate that digital HRM transformation has a positive and significant effect on both employee digital competence and employee performance. In addition, employee digital competence is found to significantly enhance performance outcomes. These results highlight that employees' ability to effectively utilize digital technologies is a critical factor in improving work effectiveness in increasingly digitalized organizational environments. Furthermore, this study confirms that digital competence plays a partial mediating role in the relationship between digital HRM transformation and employee performance. This suggests that digital transformation does not automatically lead to improved performance unless it is supported by employees' capability to optimally utilize the implemented technologies. Therefore, the success of digital transformation initiatives depends not only on technological adoption but also on the readiness and capacity of human resources. Digital transformation and employee competence development should be managed simultaneously to achieve optimal performance outcomes.

## **7. Implications**

### **7.1. Theoretical Implications**

From a theoretical perspective, this study contributes to the growing discussion on digital transformation and human resource management by extending the Resource-Based View (RBV) within the context of digitally evolving organizations. The findings demonstrate that

digital competence should not merely be interpreted as an individual technical skill, but rather as a strategic organizational capability that enables digital transformation initiatives to generate meaningful employee performance outcomes. This perspective broadens the understanding of digital transformation by emphasizing that organizational value is created not only through technological investment, but also through the organization's ability to develop workforce capability alongside technological implementation. In addition, this study contributes to the literature by positioning digital competence as a mediating organizational mechanism linking digital HRM transformation and employee performance. Previous studies have frequently examined digital competence as an independent employee attribute, whereas this study highlights its strategic role in translating technological systems into sustainable organizational outcomes. Consequently, the findings provide a more integrated explanation regarding how digital transformation influences employee performance within digitally integrated work environments.

This study also contributes contextual insight from organizations operating in emerging urban environments such as Medan, where technological transformation continues to develop alongside uneven employee digital readiness. The findings indicate that the organizational effectiveness of digital transformation may vary significantly depending on workforce capability development and organizational adaptability. Therefore, this study enriches the discussion on digital transformation by emphasizing the importance of contextual organizational conditions within developing and transitional digital environments.

## **7.2. Practical Implications**

From a practical perspective, the findings indicate that organizations should avoid viewing digital transformation solely as technological modernization or administrative system improvement. Although digital HR systems contribute to operational efficiency and work integration, technological implementation alone is insufficient to generate optimal employee performance outcomes. Organizations must simultaneously strengthen employee digital competence to ensure that technological systems can be utilized effectively within everyday organizational activities. The findings suggest that organizations should prioritize long-term workforce capability development as part of digital transformation strategy. This may be achieved through continuous digital learning programs, adaptive training systems, technological mentoring, and organizational support mechanisms that encourage employees to engage more actively with digital work environments. Organizations also need to create work systems that facilitate continuous interaction with digital technologies so that competence development becomes embedded within everyday organizational routines rather than relying solely on formal training activities.

Furthermore, organizations operating in environments with uneven digital readiness should pay greater attention to differences in employee technological adaptability. Variations in digital literacy, technological exposure, and work experience may influence how employees respond to digital transformation initiatives. Therefore, organizations are encouraged to implement more flexible and inclusive digital capability development strategies to ensure that digital transformation produces sustainable organizational performance improvement across different employee groups.

## **8. Limitations and Future Research**

This study has several limitations that should be considered when interpreting the findings. First, the study employs a quantitative cross-sectional approach based on self-reported

responses, which may limit the ability to capture changes in employee competence and performance over time. Although the findings provide important empirical evidence regarding the relationship among digital HRM transformation, digital competence, and employee performance, the results primarily reflect employees' perceptions within a particular period of organizational transformation. Second, the study focuses on organizations operating within the context of Medan as an emerging urban environment undergoing digital organizational transformation. While this context provides important insight into how organizations manage technological implementation alongside uneven workforce readiness, the findings may not fully represent organizations operating within highly digitalized environments or different industrial contexts. Nevertheless, the Medan organizational context offers valuable academic insight because it reflects transitional organizational conditions in which digital transformation continues to develop alongside varying levels of employee adaptability and technological exposure.

Third, this study positions digital competence as the primary mediating mechanism linking digital HRM transformation and employee performance. Although the findings confirm the strategic importance of digital competence, other organizational factors may also influence the effectiveness of digital transformation. Variables such as digital leadership, organizational learning culture, employee engagement, technological support systems, and organizational adaptability may further explain how digital transformation generates sustainable organizational outcomes. Future research is therefore encouraged to develop more comprehensive models by incorporating additional organizational and behavioral variables that may strengthen the understanding of digital transformation processes within evolving work environments. Longitudinal approaches may also provide deeper insight into how employee digital competence develops over time as organizations continue to implement digital systems. In addition, comparative studies across industries or regional organizational environments are recommended to examine how contextual differences influence the relationship between digital transformation, workforce capability development, and employee performance.

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