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Research Article

Human Resource Transformation in Hospitals: The Role of Digital Capabilities, Digital Training, and Organizational Agility

Anita Linda Yohana Pratasik [1*], Irvan Trang [2], Merinda Pandowo[3], Genita Lumintang[3]

[1] Universitas Sam Ratulangi, Manado, Indonesia; email: anitapratasikapt28@gmail.com
[2] Universitas Sam Ratulangi, Manado, Indonesia; email: trang_irvan@unsrat.ac.id
[3] Universitas Sam Ratulangi, Manado, Indonesia; email: amerindapandowo@unsrat.ac.id
[4] Universitas Sam Ratulangi, Manado, Indonesia; email: genitalumintang@unsrat.ac.id
* Corresponding Author : anitapratasikapt28@gmail.com

Abstract: Digital transformation in healthcare requires hospitals to strengthen human resources that can adapt to technological change. This study aims to analyze the influence of digital capability and digital training on human resource transformation, with organizational agility as a mediating variable, in hospitals in North Sulawesi Province. A quantitative approach with a survey method was employed, involving 200 hospital workers who use digital technology in their work. Data were analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS software. The findings show that digital capability has a positive and significant effect on organizational agility ($\beta = 0.400$; $p < 0.001$) and human resource transformation ($\beta = 0.371$; $p < 0.001$). Digital training also positively and significantly affects organizational agility ($\beta = 0.395$; $p < 0.001$) and human resource transformation ($\beta = 0.133$; $p = 0.010$). Organizational agility further contributes positively to human resource transformation ($\beta = 0.374$; $p < 0.001$). Mediation analysis confirms that organizational agility partially mediates the effects of digital capability and digital training on human resource transformation. These findings highlight the importance of integrating digital competence, structured training, and agile organizational systems to support sustainable hospital transformation in line with Dynamic Capability Theory and practical managerial needs.

Keywords: Digital Capability; Digital Training; Hospital; Human Resource Transformation; Organizational Agility.

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1. Introduction

Digital transformation has become a global strategic agenda in the healthcare sector as advances in information and communication technology transform how healthcare organizations deliver services to patients. Hospitals across the globe are increasingly adopting digital technologies, such as Electronic Health Records (EHRs), which digitally store patient clinical data and are used for various machine learning- and big data-based clinical analyses (Shickel et al., 2018). Artificial Intelligence (AI), the Internet of Medical Things (IoMT), and big data analytics enable real-time patient monitoring, remote diagnosis, and digital medical data integration (Ghubaish et al., 2021). Furthermore, Hospital Information Systems (HIS) to improve operational efficiency, service quality, and patient safety (WHO, 2019). The use of digital technology enables real-time integration of patient data, increased diagnostic accuracy, accelerated service processes, and data-driven decision-making (Salihati Hanifa & Kurniawan Erman Wicaksono, 2025; Stoumpos et al., 2023). These developments require healthcare organizations to not only invest in technology but also prepare human resources capable of adapting to the increasingly digital work environment.

While digital transformation offers numerous strategic benefits, its implementation still faces challenges related to human resource readiness. Various studies have shown that low digital literacy among healthcare workers, resistance to technological change, digital competency gaps, and limited training programs are key obstacles to hospital digitalization (Binsar et al., 2026; Gustshella et al., 2024; Salihati Hanifa & Kurniawan Erman Wicaksono, 2025). These challenges are becoming increasingly complex in developing countries, including Indonesia, which is accelerating the transformation of its national healthcare system through the digitalization of healthcare services. Although various hospitals have begun implementing health information systems, the level of human resource readiness still shows significant variation across institutions (Binsar et al., 2026). Research shows that the success of digital transformation in hospitals in Indonesia is heavily influenced by employee digital competency readiness and organizational support for the change process. Therefore, human resource capacity development is a key factor in the success of digital transformation in the healthcare sector.

In the context of digital transformation, digital capability is a strategic asset that determines an organization's ability to navigate technological change. Digital capability refers to the ability of individuals and organizations to utilize digital technology to support operational activities, decision-making, innovation, and value creation (van de Wetering & Versendaal, 2021). The Dynamic Capability Theory perspective developed by Teece (2007) explains that organizations need the ability to integrate, build, and reconfigure resources to effectively respond to environmental changes. Furthermore, Human Capital Theory emphasizes that individual competencies, knowledge, and skills are sources of an organization's competitive advantage (Becker, 1993). In a hospital environment, a workforce with high digital capabilities tends to be more able to adopt new technologies, utilize data effectively, and support improvements in the quality of healthcare services (Tenggono et al., 2025; Warner & Wäger, 2019).

In addition to digital capability, digital training also plays a crucial role in supporting the success of an organization's digital transformation. Digital training is a competency development process designed to enhance individuals' abilities to understand, use, and optimize digital technology in their work. (Gustshella et al., 2024; Irfan Fitriansyah & Indiyati, 2025) explains that effective training can improve individual competency, productivity, and readiness to face organizational change. In the healthcare sector, digital training plays a crucial role in accelerating the adoption of health information systems, improving technology utilization, and reducing resistance to change (Brown et al., 2020; Nazeha et al., 2020). Thus, digital transformation cannot run optimally if organizations focus solely on technology investment without balancing it with continuous human resource competency development.

However, digital capability and digital training do not always directly result in optimal human resource transformation. Organizations also need the ability to respond to environmental changes quickly, flexibly, and adaptively. This capability is known as organizational agility. Organizational agility is understood as an organization's ability to adapt flexibly and quickly to dynamic environmental changes through effective decision-making processes, efficient communication, high internal motivation, and the capacity to build a shared identity and embrace change (Kwasek et al., 2025). In the hospital context, organizational agility is becoming increasingly important as organizations must navigate the rapid development of healthcare technology, regulatory changes, rising patient expectations, and complex environmental dynamics. Organizational agility, through a flexible information technology infrastructure, can facilitate the reaping of the benefits of digitalization (Irfan et al., 2019).

Organizational agility is also seen as a strategic mechanism that bridges the gap between digital capability, digital training, and human resource transformation. Individuals with strong digital capabilities and adequate training will be better prepared to face changes in technology and work processes. However, these benefits will be maximized if the organization has the ability to respond to change quickly and flexibly. Research by (Kludacz-Alessandri et al., 2025) showed that digital readiness and managerial capabilities contribute to increased organizational agility in the healthcare sector. Similar findings were also expressed by (Zulfikri, 2025) which states that organizational agility is a crucial factor in linking an organization's digital capabilities to the success of digital transformation and improved organizational performance. Therefore, organizational agility is thought to play a mediating role in the relationship between digital capability, digital training, and human resource transformation.

Although digital transformation has become a significant concern in the healthcare sector, several aspects still require further study. Most previous research focuses on the imple-

mentation of digital technology, health information systems, and organizational transformation, while studies focusing on human resource transformation in a digital context are relatively limited. Furthermore, research on the impact of digital capability and digital training on human resource transformation has not been widely integrated within a single research model, particularly in the hospital setting.

On the other hand, organizational agility is increasingly recognized as a crucial factor in helping organizations adapt to technological changes and dynamic work environments. However, understanding how organizational agility plays a role in supporting human resource transformation in the healthcare sector still requires broader empirical evidence. This situation highlights the need for research that integrates aspects of digital capabilities, digital training, organizational agility, and human resource transformation within a comprehensive research framework.

Based on these conditions, this study aims to analyze the influence of digital capability and digital training on human resource transformation, with organizational agility as a mediating variable, in hospitals undergoing digital transformation. This research is expected to contribute to enriching the literature on digital-based human resource management in the healthcare sector.

In North Sulawesi, hospital digital transformation has also shown significant progress. Several hospitals have implemented Electronic Medical Records (EMR), integrated health data with the SATUSEHAT platform, and developed the Smart Hospital concept to improve the quality of healthcare services. However, various studies indicate that the implementation of hospital information systems still faces challenges related to human resource readiness, particularly digital competency and understanding of health information systems. This situation indicates that the success of hospital digital transformation is determined not only by the availability of technology, but also by the organization's ability to develop human resources that are adaptive to digital change.

Based on this background, this study aims to analyze the influence of digital capability on organizational agility, analyze the influence of digital training on organizational agility, examine the influence of organizational agility on human resource transformation, and examine the mediating role of organizational agility in the relationship between digital capability, digital training, and human resource transformation in hospitals. Thus, this study is expected to provide a more comprehensive understanding of the factors supporting human resource transformation in the digital era.

This research provides theoretical and practical contributions. Theoretically, this research expands the literature on digital human resource transformation by integrating Dynamic Capability Theory (Teece, 2007) and the concept of organizational agility in explaining human resource transformation in the healthcare sector. Furthermore, this study provides empirical evidence regarding the role of organizational agility as a mechanism connecting digital capability and digital training with human resource transformation. Practically, the research findings are expected to serve as a basis for hospital management in designing digital competency development strategies, developing effective digital training programs, and enhancing organizational agility to support the success of sustainable digital-based healthcare service transformation.

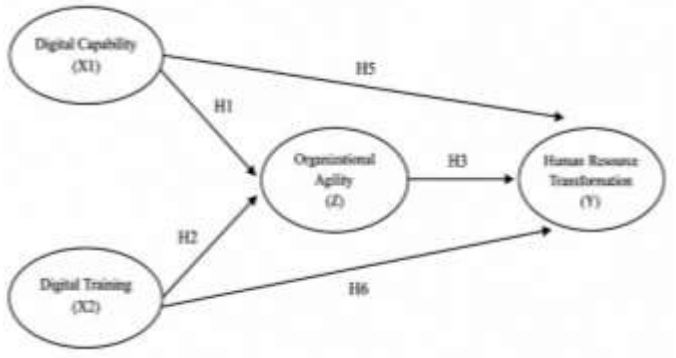


Figure 1. Information.

H1 : Digital Capabilities have a positive impact on Organizational Agility.
H2 : Digital Training has a positive impact on Organizational Agility.
H3 : Organizational Agility has a positive impact on Resource Transformation Human Resources.
H4 : Digital Capabilities have a positive impact on Human Resource Transformation.

H5 : Digital Training has a positive impact on Human Resource Transformation.
H6 : Organizational Agility mediates the relationship between Digital Capabilities and Human Resource Transformation.
H7 : Organizational Agility Mediates the Relationship between Digital Training and Transformation Human Resources

2. Literature Review

Dynamic Capability Theory

Dynamic Capability Theory introduced by David J. Teece explains that organizations need to develop the ability to integrate, build, and reconfigure internal and external competencies to respond to dynamic environmental changes (Teece, 2007). In the era of digital transformation, these capabilities are becoming increasingly important as organizations are required to continuously adapt to technological developments and changing customer needs. Dynamic capabilities enable organizations to detect opportunities, respond to change, and sustainably transform (García-Valenzuela et al., 2023). Recent studies in the healthcare sector show that dynamic capabilities play a critical role in driving digital readiness, organizational agility, and strategic innovation in hospitals (Tenggono et al., 2024).

In the hospital context, Dynamic Capability Theory serves as a relevant theoretical foundation for explaining how digital capabilities and digital training can enhance an organization's ability to navigate technological change and drive human resource transformation. Organizations with strong dynamic capabilities are more likely to develop organizational agility and maintain competitive advantage in a rapidly changing environment.

Digital Capability

Digital capability is a company's ability to acquire, use, combine, and reconfigure digital technology-related resources to support its business operations and strategies (Gökalp & Martinez, 2021). These capabilities include digital literacy, the ability to use information systems, utilize digital data, and the ability to adapt to new technologies. In a hospital setting, digital capability is a crucial factor because most healthcare processes today rely on digital technologies such as Electronic Health Records (EHR), telemedicine, and Hospital Information Systems (HIS) (Stoumpos et al., 2023).

Research shows that high digital capabilities enable healthcare workers to work more effectively, improve the accuracy of information, and speed up responses to patient needs (Borges do Nascimento et al., 2023; Ferreira et al., 2025). In addition, digital capability also serves as a foundation for developing organizational agility because individuals with digital competencies are more adaptable to changes in technology and work procedures (Le et al., 2026; Subariyanti et al., 2025).

Digital Training

the process of improving an organization "by triggering significant changes in its properties through a combination of information, computing, communications, and connectivity technologies (Bouwmans et al., 2024). Digital training focuses not only on mastering technological devices, but also on improving adaptability, problem-solving, and continuous learning in a digital environment.

In the healthcare sector, digital training is becoming an important need because the implementation of continuously developing healthcare technologies requires new competencies from the workforce (Longhini et al., 2022; Punzalan & Punzalan, 2025). Various studies show that structured training programs can improve digital readiness, accelerate technology adoption, and reduce resistance to organizational change (Alotaibi et al., 2025). A recent systematic review showed that digital competency development and training interventions are key factors in improving the digital readiness of healthcare workers (Kulju et al., 2024; Natakusumah et al., 2022).

Thus, digital training is seen as a strategic investment for organizations to strengthen employee capabilities in facing digital transformation while supporting the achievement of organizational goals.

Organizational Agility

Organizational agility refers to an organization's ability to respond to environmental changes quickly, flexibly, and effectively (Wageeh, 2016). This concept emphasizes an organization's ability to detect change, make decisions quickly, and adjust strategies and operational processes.

In the digital era, organizational agility is a key factor in determining the success of organizational transformation. Research shows that agility enables organizations to capitalize on opportunities arising from technological advancements while mitigating the risks arising from environmental uncertainty (Zhang et al., 2023). The relationship between digitalization and agility is mutually reinforcing, where digital capabilities can improve organizational agility and conversely, agility accelerates the success of digital transformation (Yıldırım et al., 2025).

In the healthcare sector, agility is becoming increasingly important as hospitals must adapt to changing technology, regulations, patient needs, and the ever-evolving dynamics of healthcare services. Several recent studies also show that agility serves as a strategic mechanism linking digital transformation to improved healthcare organizational performance (Kludacz-Alessandri et al., 2025; Tenggono et al., 2025; Zulfikri, 2025).

Human Resource Transformation

Human Resource Transformation is a strategic change process that aims to improve the quality, competence and effectiveness of human resources to meet the demands of the ever-changing organizational environment (Hee & Shanmugam, 2019; Kriemadis et al., 2023). In the context of digital transformation, these changes include increasing digital competency, changing work patterns, increasing productivity, and the ability to adapt to new technologies (Verhoef et al., 2021).

Human resource transformation is a crucial aspect of an organization's successful digital transformation, as technology cannot deliver optimal benefits without the support of a competent workforce. Hospitals that are able to sustainably develop their human resources will be better prepared to face the challenges of digitalization and improve the quality of healthcare services (Ahmad Hariri et al., 2025; Nurmaidah et al., 2024). Therefore, developing digital capabilities, digital training, and organizational agility are factors that have the potential to accelerate the HR transformation process.

3. Research Methods

This study uses a quantitative approach with an explanatory research design to examine the influence of digital capability and digital training on human resource transformation through organizational agility as a mediating variable. The study population was hospital employees in North Sulawesi Province who use digital technology in their work activities and healthcare services.

Sampling was conducted using a purposive sampling technique, with respondents being active employees who had worked for at least one year and were involved in the use of digital technology in the hospital environment. A total of 200 respondents participated in this study. Respondents came from several hospitals that have implemented hospital information systems, electronic medical records, or other digital technologies to support healthcare processes.

Primary data was collected through a questionnaire using a 5-point Likert scale. Digital capability was measured using five indicators reflecting an individual's ability to utilize digital technology. Digital training was measured using five indicators reflecting the effectiveness of digital training provided by the organization. Organizational agility was measured using five indicators representing the organization's ability to respond to change quickly and flexibly. Meanwhile, human resource transformation was measured using five indicators reflecting the increase in competence, productivity, and adaptability of human resources as a consequence of the organization's digital transformation.

Data analysis was performed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with the help of SmartPLS software. Evaluation of the measurement model (outer model) was carried out through convergent validity, discriminant validity, Cronbach's alpha, composite reliability, and average variance extracted (AVE) tests. Furthermore, the structural model (inner model) was evaluated using the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and hypothesis testing through a bootstrapping procedure. The hypothesis was declared accepted if it had a p-value <0.05 and t-statistic >1.96.

4. Results

Respondent Characteristics

Table 1. Respondent Description

Characteristics	Frequency	Percentage (%)
Gender		
Male gender	121	60.5%
Female gender	79	35%
Total	200	100%
Age		
Age 20-30 Years	46	23%
Age 31-40 Years	81	41%
Age >40 Years	73	37%
Total	200	100%
Education		
D3 Education	74	37%
Bachelor's Degree Education	88	44%
Master's Degree Education	38	19%
Total	200	100%

Based on Table 1, the majority of respondents were male (121 people) (60.5%), while female respondents numbered 79 people (39.5%). Based on age group, the majority of respondents were in the 31–40 years age range (81 people) (40.5%), followed by respondents aged 40 years and over (73 people) (36.5%) and those aged 20–30 years (46 people) (23.0%). In terms of education, the majority of respondents had a Bachelor's degree (S1) of 88 people (44.0%), followed by Diploma (D3) of 74 people (37.0%) and Master's (S2) of 38 people (19.0%). These characteristics indicate that respondents were dominated by workers in the productive age group with a relatively high level of education, so they were considered to have an adequate understanding of the use of digital technology and the process of human resource transformation in the hospital environment.

Evaluation of the Measurement Model (Outer Model)

Convergent Validity

Table 2. Outer Loading (Convergent Validity).

Construct	Indicator	Loading Factor	Information
Digital Capability	DC1	0.891	Valid
	DC2	0.905	Valid
	DC3	0.884	Valid
	DC4	0.873	Valid
	DC5	0.849	Valid
Digital Training	DT1	0.886	Valid
	DT2	0.901	Valid
	DT3	0.914	Valid
	DT4	0.879	Valid
	DT5	0.867	Valid
Organizational Agility	OA1	0.921	Valid
	OA2	0.907	Valid
	OA3	0.895	Valid
	OA4	0.884	Valid
	OA5	0.872	Valid
Human Resource Transformation	HRT1	0.918	Valid
	HRT2	0.911	Valid
	HRT3	0.899	Valid
	HRT4	0.887	Valid
	HRT5	0.874	Valid

Convergent validity is used to measure the ability of indicators to represent the construct being measured. Convergent validity evaluation is conducted based on the outer loading value with a minimum criterion of 0.70 (Hair et al., 2022). The test results presented in Table 2 show that all indicators have outer loading values above 0.70 with a value range between 0.849 and 0.921. Indicators in the Digital Capability construct have loading values between 0.849–

0.905, Digital Training between 0.867–0.914, Organizational Agility between 0.872–0.921, and Human Resource Transformation between 0.874–0.918. These results indicate that all indicators are able to explain the latent construct strongly, so no indicators need to be eliminated from the research model.

Construct Reliability

Table 3. Construct Reliability and Validity.

Construct	Cronbach Alpha	rho_A	Composite Reliability	AVE
Digital Capability	0.909	0.912	0.932	0.733
Digital Training	0.918	0.920	0.938	0.752
Organizational Agility	0.945	0.947	0.958	0.818
Human Resource Transformation	0.937	0.939	0.952	0.799

Construct reliability was evaluated using Cronbach's Alpha, rho_A, and Composite Reliability (CR) values, while convergent validity was measured through the Average Variance Extracted (AVE) value. According to (M., 2021), a construct is declared reliable if it has a Cronbach's Alpha and Composite Reliability value above 0.70, while convergent validity is fulfilled if the AVE value exceeds 0.50.

Based on the test results presented in Table 3, all constructs have Cronbach's Alpha values between 0.909 and 0.945, rho_A values between 0.912 and 0.947, and Composite Reliability values between 0.932 and 0.958. Furthermore, the AVE values for all constructs range from 0.733 to 0.818. These results indicate that all research variables meet the established reliability and convergent validity criteria.

High reliability values indicate that each indicator has good internal consistency in measuring the construct it represents. Meanwhile, AVE values above the minimum threshold indicate that each construct is able to adequately explain the variance of its indicator. Thus, all constructs in this study are deemed reliable and valid for use in the structural model testing phase.

Discriminant Validity

Table 4. Fornell-Larcker Criterion.

Construct	DC	DT	OA	HRT
DC	0.856			
DT	0.621	0.867		
OA	0.548	0.562	0.904	
HRT	0.583	0.512	0.674	0.894

Criteria: √AVE must be greater than the correlation between constructs.

Table 5. HTMT Ratio.

Construct	DC	DT	OA	HRT
DC-DT	0.711			
DC-OA	0.642			
DC-HRT	0.673			
DT-OA	0.655			
DT-HRT	0.621			
OA-HRT	0.752			

Discriminant validity aims to ensure that each construct in the research model has distinct characteristics and is capable of measuring its intended concept. In this study, discriminant validity was evaluated using the Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT) approaches.

Based on the Fornell-Larcker Criterion test results in Table 4, the square root of the Average Variance Extracted (√AVE) value for each construct is greater than the correlation value with other constructs. The √AVE value for each construct is 0.856 for Digital Capability, 0.867 for Digital Training, 0.904 for Organizational Agility, and 0.894 for Human Resource Transformation. These results indicate that each construct has a better ability to explain its own indicators compared to other constructs, thus meeting the discriminant validity criteria.

Furthermore, the test results using HTMT in Table 5 show that all HTMT values range from 0.621 to 0.752. This value is still below the threshold of 0.90 as recommended by Hair et al. (2022). Thus, it can be concluded that all constructs in this study have met the requirements for discriminant validity and have an adequate level of difference from each other.

Fulfillment of the Fornell-Larcker and HTMT criteria indicates that there are no overlapping problems between constructs so that the measurement model is suitable to proceed to the structural model evaluation stage.

Multicollinearity Test

Variance Inflation Factor (VIF)

Table 6. Collinearity Statistics (VIF).

Connection	VIF
DC → OA	1,734
DT → OA	1,734
DC → HRT	1,956
DT → HRT	1,822
OA → HRT	2.145

A multicollinearity test was conducted to ensure there was no excessive correlation between the predictor variables in the research model. The evaluation was conducted using the Variance Inflation Factor (VIF) value, with the criterion that the VIF value must be less than 5 to indicate the absence of multicollinearity (Hair et al., 2022).

Based on the test results presented in Table 6, all relationships between constructs have VIF values ranging from 1.734 to 2.145. The highest VIF value was found in the relationship between Organizational Agility and Human Resource Transformation at 2.145, while the lowest VIF value was found in the relationship between Digital Capability and Digital Training and Organizational Agility at 1.734. All of these values are below the recommended maximum limit, thus concluding that the research model does not experience multicollinearity issues. Thus, each independent variable is able to adequately explain the dependent variable without causing bias due to excessive correlation between predictors.

Structural Model Evaluation (Inner Model)

Coefficient of Determination (R^2)

Table 7. R-Square Value.

Endogenous Variables	R^2	Category
Organizational Agility	0.328	Moderate
Human Resource Transformation	0.455	Moderate

Structural model evaluation is conducted to assess the ability of exogenous variables to explain endogenous variables within the research model. One measure used is the Coefficient of Determination (R^2). According to Hair et al. (2022), the R^2 value indicates the proportion of the variance in endogenous variables that can be explained by the exogenous variables in the model. The higher the R^2 value, the greater the predictive ability of the research model.

Based on the test results presented in Table 7, the R^2 value for Organizational Agility is 0.328. This result indicates that Digital Capability and Digital Training are able to explain 32.8% of the variation in Organizational Agility, while the remaining 67.2% is explained by other factors outside the research model. Meanwhile, the R^2 value for Human Resource Transformation is 0.455, indicating that Digital Capability, Digital Training, and Organizational Agility are simultaneously able to explain 45.5% of the variation in Human Resource Transformation, while the remaining 54.5% is influenced by other variables not examined in this study.

Based on the criteria proposed by Hair et al. (2022), the R^2 values of 0.328 and 0.455 are considered moderate. Thus, the research model has a fairly good ability to explain the relationships between the studied variables, particularly in explaining human resource transformation in hospitals undergoing digital transformation.

These findings indicate that factors related to digital capabilities, digital training, and organizational agility contribute substantially to driving human resource transformation in hospitals. These results indicate that the success of HR transformation is influenced not only by individual competencies but also by the organization's ability to adapt to changes in the digital environment.

Effect Size (f^2)

Table 8. F-Square Value (Effect Size).

Connection	f^2	Category
DC → OA	0.214	Currently
DT → OA	0.205	Currently
OA → HRT	0.187	Currently
DC → HRT	0.176	Currently
DT → HRT	0.041	Small

In addition to evaluating the model's predictive ability using the R^2 value, this study also measured the magnitude of each construct's influence using the effect size (f^2) value. According to Hair et al. (2022), an f^2 value of 0.02 indicates a small effect, 0.15 indicates a medium effect, and 0.35 indicates a large effect.

Based on the test results in Table 8, the relationship between Digital Capability and Organizational Agility has an f^2 value of 0.214, which is considered moderate. Similar results were found for the relationship between Digital Training and Organizational Agility, with an f^2 value of 0.205. These findings indicate that both digital capability and digital training have a significant contribution to improving an organization's ability to adapt to changes in the digital environment.

Furthermore, the relationship between Organizational Agility and Human Resource Transformation yielded an f^2 value of 0.187, which is considered moderate. This result indicates that organizational agility plays a significant role in driving human resource transformation in hospitals. Furthermore, the relationship between Digital Capability and Human Resource Transformation also showed a moderate effect, with an f^2 value of 0.176.

Unlike other relationships, Digital Training's relationship with Human Resource Transformation only yielded an f^2 value of 0.041, which is considered small. Although the relationship proved statistically significant, the direct contribution of digital training to human resource transformation was relatively small compared to the influence of other variables. This finding indicates that the benefits of digital training tend to be more effective when supported by an organization's ability to respond to change quickly and flexibly.

Predictive Relevance (Q^2)

Table 9. Predictive Relevance (Q^2).

Variables	Q^2
Organizational Agility	0.241
Human Resource Transformation	0.318

Predictive Relevance (Q^2) is used to evaluate a model's predictive ability to explain endogenous variables. According to Hair et al. (2022), a research model has predictive relevance if the Q^2 value is greater than zero. The higher the Q^2 value, the better the model's ability to predict the variables studied.

Based on the test results in Table 9, the Q^2 value for Organizational Agility is 0.241 and the Q^2 value for Human Resource Transformation is 0.318. Both values are above zero, indicating that the research model has good predictive ability for the endogenous variables analyzed.

These results indicate that the combination of Digital Capability, Digital Training, and Organizational Agility can provide relevant information in predicting human resource transformation in hospital settings. Thus, the research model is not only able to statistically explain the relationships between variables but also has sufficient predictive power to describe the phenomenon of digital capability-based HR transformation.

Hypothesis Testing

Table 10. Path Coefficient (Direct Hypothesis).

Hypothesis	Connection	β	T Statistics	P Values	Decision
H1	DC → OA	0.400	7,227	0.000	Accepted
H2	DT → OA	0.395	7,120	0.000	Accepted
H3	OA → HRT	0.374	6,206	0.000	Accepted
H4	DC → HRT	0.371	6,385	0.000	Accepted
H5	DT → HRT	0.133	2,593	0.010	Accepted

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS. The hypothesis was accepted if it had a t-statistic value greater than 1.96 and a p-value less than 0.05. The results of the direct hypothesis testing are presented in Table 10.

Based on the test results, all direct hypotheses in this study were declared accepted. Digital Capability has a positive and significant effect on Organizational Agility ($\beta = 0.400$; $t = 7.227$; $p < 0.001$), so H1 is accepted. Digital Training also has a positive and significant effect on Organizational Agility ($\beta = 0.395$; $t = 7.120$; $p < 0.001$), so H2 is accepted.

Furthermore, Organizational Agility is proven to have a positive and significant effect on Human Resource Transformation ($\beta = 0.374$; $t = 6.206$; $p < 0.001$), so H3 is accepted. Digital Capability also has a positive and significant effect on Human Resource Transformation ($\beta = 0.371$; $t = 6.385$; $p < 0.001$), which indicates that H4 is accepted. In addition, Digital Training has a positive and significant effect on Human Resource Transformation ($\beta = 0.133$; $t = 2.593$; $p = 0.010$), so H5 is accepted.

These results indicate that digital capabilities and digital training play a crucial role in enhancing organizational agility and supporting human resource transformation in hospitals. Of all the direct relationships tested, the influence of digital capabilities on organizational agility had the largest coefficient of influence.

Testing the Mediation Effect

Table 11. Specific Indirect Effects (Mediation).

Hypothesis	Mediation Relationship	β	T Statistics	P Values	Decision
H6	DC → OA → HRT	0.150	4,712	0.000	Accepted
H7	DT → OA → HRT	0.147	4,439	0.000	Accepted

A mediation effect test was conducted to determine whether Organizational Agility could mediate the relationship between Digital Capability and Digital Training on Human Resource Transformation. The results of the mediation test were obtained through specific indirect effects analysis using the bootstrapping procedure in SmartPLS. The test results are presented in Table 11.

Based on the test results, Organizational Agility is proven to significantly mediate the relationship between Digital Capability and Human Resource Transformation with a coefficient value of 0.150, a t-statistic value of 4.712, and a p-value of 0.000. Thus, H6 is accepted. These results indicate that increasing employee digital capabilities not only has a direct impact on human resource transformation but is also able to increase organizational agility which in turn encourages more effective human resource transformation.

Furthermore, Organizational Agility was also proven to significantly mediate the relationship between Digital Training and Human Resource Transformation with a coefficient value of 0.147, a t-statistic value of 4.439, and a p-value of 0.000. Therefore, H7 was accepted. This finding indicates that digital training provided by organizations can improve human resource transformation by increasing the organization's ability to respond to change and adapt to technological developments.

Since the direct influence of Digital Capability on Human Resource Transformation (H4) and Digital Training on Human Resource Transformation (H5) remains significant, while the indirect influence through Organizational Agility is also significant, Organizational Agility in this study acts as a partial mediator. These results indicate that organizational agility is not the sole mechanism explaining human resource transformation, but rather serves as a reinforcing factor that magnifies the impact of digital capability and digital training on human resource transformation in the hospital environment.

5. Discussion

The results of the study indicate that all proposed hypotheses are accepted. Digital Capability and Digital Training are proven to have a positive effect on Organizational Agility and Human Resource Transformation. Furthermore, Organizational Agility also has a positive effect on Human Resource Transformation and acts as a partial mediator in the relationship between Digital Capability and Digital Training on Human Resource Transformation. These findings indicate that human resource transformation in the hospital environment is not only determined by the individual's ability to utilize digital technology, but also by the organization's ability to respond to change quickly and adaptively.

Research findings indicate that digital capability is a critical factor driving organizational agility and human resource transformation. These results indicate that employees who possess the ability to operate digital technology, utilize information systems, and adapt technology-based work processes tend to be better prepared for organizational change. This finding aligns with the Dynamic Capability Theory perspective, which emphasizes that the ability to acquire,

integrate, and utilize digital resources is a critical factor in enhancing organizational adaptability.

This study also found that digital training has a positive impact on organizational agility and human resource transformation. These findings indicate that digital training programs can improve employee readiness in using technology and accelerate the process of adapting to digital change. However, the relatively small effect size value for the direct relationship between digital training and human resource transformation indicates that digital training alone is not sufficient to produce significant human resource changes. Digital training needs to be translated into more adaptive work practices to produce sustainable transformation.

Organizational Agility has been shown to have a positive influence on Human Resource Transformation. These findings indicate that hospitals that are able to respond quickly and flexibly to technological changes tend to be more successful in developing the competence, productivity, and adaptability of human resources. In the context of digital transformation in healthcare, agility enables organizations to adapt work processes, accelerate decision-making, and effectively integrate new technologies..

One of the important findings in this study is the mediating role of Organizational Agility. The analysis results show that Organizational Agility significantly mediates the relationship between Digital Capability and Human Resource Transformation as well as the relationship between Digital Training and Human Resource Transformation. This finding suggests that the benefits of digital capabilities and digital training will be optimal when organizations have the ability to adapt quickly to environmental changes. Interestingly, the indirect effect of Digital Training on Human Resource Transformation through Organizational Agility is greater than its direct effect. This indicates that the success of digital training is determined not only by improving individual competencies, but also by the organization's ability to transform these competencies into adaptive and innovative work behaviors.

Theoretically, this study extends the development of Dynamic Capability Theory by demonstrating that Organizational Agility is a crucial mechanism linking digital capabilities and human resource development in the hospital context. Practically, the research findings provide implications for hospital management that investment in digital technology needs to be balanced with the development of digital competencies and increased organizational agility. Thus, digital transformation is not only oriented towards technology implementation but also towards the transformation of human resources capable of supporting the sustainability of digital-based healthcare services.

6. Conclusion

This study aims to analyze the influence of Digital Capability and Digital Training on Human Resource Transformation through Organizational Agility in hospitals undergoing digital transformation in North Sulawesi Province. The results show that Digital Capability and Digital Training have a positive effect on Organizational Agility and Human Resource Transformation. Furthermore, Organizational Agility has also been shown to have a positive effect on Human Resource Transformation. These findings indicate that human resource transformation in a hospital environment is not only determined by the individual's ability to utilize digital technology, but also by the organization's ability to adapt to rapid and dynamic changes.

This study also found that organizational agility acts as a partial mediator in the relationship between digital capability and human resource transformation, as well as between digital training and human resource transformation. These results indicate that the benefits of digital capability and digital training will be optimal when supported by the organization's ability to respond to change, adopt new technologies, and flexibly adapt work processes. Thus, organizational agility is a strategic factor that strengthens the success of human resource transformation in the digital era.

Practically, the research findings provide implications for hospital management, focusing not only on technology investment but also on developing employee digital competencies and enhancing organizational agility. Continuous digital training programs, strengthening an adaptive culture, and supporting organizational innovation and learning are crucial steps in accelerating human resource transformation and improving the quality of digital-based healthcare services.

This study has limitations because it only involved respondents from hospitals in North Sulawesi Province and used a cross-sectional approach, thus failing to capture long-term changes in organizational behavior. Therefore, future research is recommended to expand the

scope of the study, add other variables such as digital leadership, innovation culture, or technology readiness, and use a longitudinal approach to gain a more comprehensive understanding of human resource transformation in the healthcare sector.

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