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HUMAN RESOURCE DIGITAL COMPETENCY STRATEGIES FOR DIGITAL TRANSFORMATION AT THE MESUJI COMMUNICATION AND INFORMATICS OFFICE

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Abstract:

Digital transformation in local government requires not only adequate information technology infrastructure but also public employees who possess relevant and continuously updated digital competencies. This study aims to analyze strategies for strengthening the digital competence of human resources and to identify the constraints encountered at the Communication and Informatics Office of Mesuji Regency. A descriptive qualitative approach was employed. Data were collected through observation, semi-structured interviews with five key informants, documentation, and a literature review. Data validity was examined through source and technique triangulation, prolonged engagement, and persistent observation, while the data were analyzed through data reduction, data display, and conclusion drawing/verification. The findings show that the main strategies consist of education and training, competency-based promotion, and job rotation. These strategies are reinforced through continuous learning, knowledge sharing, mentoring, and digital competency mapping. Their implementation has improved employees' ability to use government applications, manage digital data, and support the Electronic-Based Government System. However, uneven competencies, discontinuous training, the absence of comprehensive competency mapping, limited budgets, and varying adaptability remain major constraints. An integrated and sustainable competency management policy is therefore essential to accelerate digital transformation and improve public service quality.

Keywords: *digital competence, human resource development, digital transformation, local government, SPBE*

INTRODUCTION

Human resources are a decisive factor in the success of government organizations because public employees are directly responsible for implementing policies and delivering services to the public. The quality of public employees cannot be supported solely by technical knowledge; it also requires integrity, professionalism, adaptability, and a willingness to engage in continuous learning. Human resource development must therefore be managed systematically through education and training, competency-based development, appropriate placement, and the strengthening of a work culture that supports organizational change (Hasibuan, 2017; Sedarmayanti, 2017).

The urgency of human resource development becomes even greater in the context of government digital transformation. Digital transformation does not merely mean replacing manual processes with applications; it also encompasses changes in work processes, communication patterns, decision-making, organizational culture, and forms of public service. Technology will generate benefits only when it is managed

by employees who can understand systems, process data, maintain information security, and adapt to technological updates. In public organizations, human resource readiness, organizational culture, and adaptability are among the principal challenges to successful digital transformation (Bahri et al., 2024; Norliani et al., 2024).

The Communication and Informatics Office of Mesuji Regency holds a strategic position as a regional government agency responsible for communication and informatics, statistics, and cryptography. The office performs functions related to public information management, government application development, sectoral data management, networks, and information security. Given this role, the office is not merely a user of technology but also a driving force behind the Electronic-Based Government System (SPBE) and the digitalization of services within the Mesuji Regency Government.

The preliminary survey showed that various government applications, online administrative services, and digital media were already in use. However, employee readiness remained uneven. Some tasks still depended on particular employees with greater information technology proficiency; some employees remained comfortable with conventional work methods; and digital training had not always been designed according to the actual needs of each position. These gaps may create imbalances in workload, slow adaptation to new systems, and reduce service effectiveness when technical support is unavailable.

Previous studies have emphasized that human resource readiness and adaptability affect the success of digital transformation in the public sector (Pratama & Nugroho, 2021). Digital-based training designed according to organizational needs can also improve public employee competencies and accelerate the implementation of technology-based work systems (Sari & Putra, 2022). Other studies indicate that public employee development strategies in the digital era require integration among learning, organizational support, and career management (Rahim, 2024; Kurniawan & Izzuddin, 2025).

Nevertheless, studies of digital transformation still frequently treat technology and training as separate issues. This study addresses that gap by analyzing organizational strategies for developing digital competencies at the Communication and Informatics Office of Mesuji Regency. The analysis covers not only education and training but also promotion, job rotation, learning culture, competency mapping, and implementation constraints. This focus is important because digital competence must be understood as a combination of knowledge, skills, openness to change, and the ability to work across functions.

Based on these issues, this study aims to analyze strategies for improving human resource digital competencies in support of digital transformation and to identify the constraints faced by the Communication and Informatics Office of Mesuji Regency. The findings are expected to provide a foundation for developing public employee policies that are more focused, sustainable, aligned with SPBE requirements, and supportive of improved public service quality.

RESEARCH METHOD

This study employed a descriptive qualitative approach to obtain an in-depth understanding of strategies for improving human resource digital competencies and

the constraints affecting their implementation. The qualitative approach was selected because the study focuses on the processes, experiences, views, and meanings assigned by organizational actors to the phenomenon of digital transformation (Sugiyono, 2016; Barusman, 2017). The study was conducted at the Communication and Informatics Office of Mesuji Regency.

The researcher served as the primary instrument, supported by a semi-structured interview guide. Informants were selected purposively because they possessed authority and knowledge concerning human resource management and digital transformation. They comprised the Head of the Communication and Informatics Office, the Head of the Public Information and Communication Management Division, the Head of the Informatics Application Management, Cryptography, and Statistics Division, the Head of the General Affairs and Personnel Subdivision, and the Head of the Planning and Programs/Finance Subdivision.

Primary data were obtained through observation and interviews, while secondary data were obtained from documentation, institutional profiles, organizational structures, activity reports, regulations, archives, and literature. Observation was used to examine technology-use practices, employee adaptation patterns, and the utilization of digital facilities. Interviews were used to explore policies, experiences, perceptions, and constraints related to competency development. Documentation was used to verify and supplement field information.

Data validity was maintained through source triangulation, technique triangulation, prolonged engagement, and persistent observation. Data analysis followed the model of Miles, Huberman, and Saldaña (2014), consisting of data reduction, data display, conclusion drawing, and verification. The findings were then mapped descriptively using SWOT analysis and the TOWS matrix to formulate directions for digital competency development strategies that could be implemented in stages.

FINDINGS AND DISCUSSION

Digital Competency Conditions and Organizational Strategic Direction

The Communication and Informatics Office of Mesuji Regency has implemented information technology for administration, data management, public information dissemination, government application development, and interdivisional coordination. This implementation demonstrates that digital transformation has become part of the organization's activities. However, observations and interviews showed that employees' ability to use technology remained varied. Employees with greater experience and more intensive training were able to work more independently, whereas other employees still required assistance when using new applications or dealing with changes in digital procedures.

Competency disparities were influenced by educational background, work experience, age, access to training, and individual adaptability. This condition created dependence on certain employees and caused the speed of new-system implementation to differ across units. Meanwhile, facilities such as networks, computers, servers, and government applications were available, but they were used more extensively for operational work than for independent learning and competency development.

The SWOT analysis showed that the organization possessed strengths in the form of leadership commitment, a dedicated information technology unit, digital infrastructure, the basic competencies of some employees, and the implementation of SPBE. External opportunities included policies accelerating digital transformation, government training and certification programs, collaboration with universities or training institutions, and the availability of online learning platforms. The main weaknesses were uneven competencies, discontinuous training, the absence of a competency map, budget limitations, and varying adaptability. Threats included rapid technological change, cybersecurity risks, regulatory changes, and increasing public expectations for digital services.

This position directs the organization toward strategies that leverage its strengths and opportunities to address its weaknesses. Leadership commitment and the available infrastructure should be linked to training programs, certification, external collaboration, and online learning. At the same time, the organization needs to establish a digital competency system that objectively identifies the requirements of each position and the competency gaps of each employee.

Strategies for Improving Human Resource Digital Competencies

The main findings show that digital competency improvement is implemented through three human resource development instruments: education and training, promotion, and job rotation. These instruments are consistent with a human resource development approach that views learning, career advancement, and broader experience as means of strengthening employee capacity (Rivai & Sagala, 2014). In practice, the three strategies are also reinforced through continuous learning, knowledge sharing, mentoring, and competency mapping.

Education and training constitute the most dominant strategy. Activities attended by employees include technical guidance sessions, workshops, seminars, briefings on government applications, SPBE training, website and digital data management, and information security training. These activities are organized internally and through programs offered by ministries, the Lampung Provincial Government, and other training institutions. Training improves technical capabilities while fostering a digital mindset so that technology is used to accelerate work, increase transparency, and improve service quality.

Training becomes more effective when the material is tailored to the needs of each work unit. Employees responsible for information security require stronger cybersecurity capabilities, while public communication personnel need competencies in digital media and information management. This finding reinforces the importance of a Training Needs Analysis so that training is not overly general. Post-training evaluation is also required to assess how the material is applied in the workplace and to determine appropriate follow-up programs.

Promotion is used both as recognition and as an incentive for competency development. Placement in positions related to applications, sectoral statistics, cryptography, networking, and public information takes into account competence, performance, integrity, and technological proficiency. Under the principle of placing the right person in the right position, digital capabilities become an added value in career development. Competency-based promotion encourages employees to pursue training and certification and to produce digital innovations rather than relying solely

on length of service.

Job rotation gives employees opportunities to learn about applications, information systems, data management, networks, information security, and business processes in different units. Rotation develops multi-skilled employees, broadens their understanding of interdivisional relationships, and strengthens collaboration in SPBE implementation. To prevent rotation from becoming merely an administrative transfer, it should be based on competency mapping and accompanied by mentoring and knowledge transfer in the new work unit.

Beyond the three main strategies, the organization has begun to foster a digital learning culture through webinars, online courses, technology literature, discussion forums, and knowledge sharing. Employees who have completed training can serve as internal resource persons so that knowledge does not remain concentrated in individuals. A lifelong learning culture is essential because digital competencies change rapidly and cannot rely solely on periodic formal training.

The findings also indicate the need to establish integrated digital competency management. Competency mapping for all employees, position-specific competency standards, periodic evaluations, and a competency information system would help the organization identify competency gaps and determine development priorities. With such a system, training, promotion, and rotation can be implemented more fairly, measurably, and accurately.

Table 1. Summary of Human Resource Digital Competency Improvement Strategies

Strategy	Field Implementation	Contribution to Digital Transformation
Education and training	Technical guidance, workshops, government application/SPBE training, information security, data management, webinars, and implementation evaluation.	Updates knowledge, technical skills, the digital mindset, and service quality.
Competency-based promotion	Placement of competent employees in application, statistics, cryptography, networking, and public information functions.	Enhances motivation, professionalism, innovation, and person-job fit.
Job rotation	Planned movement across units accompanied by mentoring and knowledge transfer.	Broadens experience, develops multi-skilled employees, and strengthens cross-functional collaboration.
Digital learning culture	Webinars, online courses, learning communities, discussion forums, and knowledge sharing.	Maintains up-to-date competencies and fosters continuous learning.
Competency management	Competency mapping, position-specific standards, periodic evaluations, and a competency database.	Directs training, promotion, and rotation in a measurable and targeted manner.

Implementation Constraints

The first constraint is the uneven distribution of employees' digital competencies. Differences in application proficiency, data management, and technical problem-solving mean that some employees can work independently, while others require assistance. This gap creates dependence on certain employees and hinders the

consistent implementation of digital systems across all units.

The second constraint is the discontinuous implementation of education and training. Some activities still depend on programs organized by the central government, provincial government, or other institutions; consequently, their frequency and number of participants are determined by the programs available. However, developments in applications and technology require regular knowledge updates. Sporadic training creates a risk that competencies will quickly become outdated.

The third constraint is the absence of comprehensive digital competency mapping. Without a competency map, the organization has difficulty identifying each employee's capability gaps, the training materials most needed, and appropriate measures of program success. The absence of competency data also means that promotion and rotation are not yet fully connected to long-term development plans.

The fourth constraint is budget limitations. Competency development requires funding for training, certification, resource persons, and learning facilities. Budget constraints force the organization to limit the number of participants and select only priority programs. Collaboration with ministries, the provincial government, universities, and training institutions offers an alternative means of expanding access to learning.

The fifth constraint is variation in employees' adaptability to technological developments. Every update to applications and procedures requires employees to learn new ways of working. Employees with an open attitude and digital experience adapt more easily, while others require more intensive assistance. Competency improvement must therefore address not only technical skills but also attitudes toward change and confidence in using technology.

Table 2. Constraints and Required Strategic Responses

Constraint	Impact	Required Strategic Response
Uneven competencies	Dependence on certain employees and different work speeds across units.	Tiered training, mentoring, and knowledge sharing.
Training is not yet continuous	Competencies quickly become outdated as applications and systems are updated.	A regular training calendar and online learning.
No competency map	Development programs are poorly targeted and difficult to evaluate.	Assessment and mapping of competency gaps by position.
Limited budget	The number of participants, certifications, and program coverage are limited.	Risk-based prioritization and external collaboration.
Varying employee adaptability	New-system implementation is inconsistent.	Mentoring, hands-on training, and strengthening the digital mindset.

Discussion and Implementation Plan

The findings confirm that digital transformation is a human-centered organizational change. The availability of applications and infrastructure does not automatically improve service quality when employees do not possess comparable capabilities. This finding is consistent with the view that digital transformation must integrate technology, organizational strategy, work culture, and human resource

readiness (Fauzi & Kusuma, 2025; Nadia & Nasution, 2024).

Education and training form the foundation because they provide the knowledge and skills directly required in the workplace. However, training is effective only when it is needs-based, followed by workplace application, and evaluated. The finding regarding the need for needs-based training is consistent with Sari and Putra (2022), who identify the relevance of training design as an important factor in improving public employee competencies. Training should therefore shift from an event-based pattern to a continuous learning system.

Promotion and rotation demonstrate that competency development cannot be separated from career management. Competency-based promotion creates incentives for employees to learn, while rotation provides the cross-functional experience required in an integrated digital government system. This principle is consistent with human resource development that not only improves capabilities for current work but also prepares employees for future responsibilities and organizational change (Sedarmayanti, 2019; Rivai & Sagala, 2014).

Digital learning culture and competency management serve as the connecting elements that enable the three main strategies to operate consistently. Knowledge sharing prevents knowledge from being concentrated in individuals, while competency mapping ensures that programs are provided to the appropriate employees. Without these two elements, training may remain sporadic, promotion may be difficult to measure, and rotation may fail to produce the expected learning outcomes.

Based on the SWOT/TOWS analysis, the implementation plan should be organized in stages. The short-term stage focuses on competency mapping, identification of training needs, strengthening basic training, and internal policies. The medium-term stage is directed toward advanced training, certification, e-learning, collaboration, and stronger evaluation systems. The long-term stage targets more even competency levels, a continuous learning culture, stronger information security, and adaptive digital public services.

Table 3. Stages of the Digital Competency Development Strategic Plan

Stage	Program Priorities	Main Outcomes
Short term (0-1 year)	Competency mapping, Training Needs Analysis, basic training, strengthening SPBE, and internal policies.	Data on competency gaps and focused priority programs.
Medium term (2-3 years)	Advanced training, certification, e-learning, external collaboration, mentoring, and periodic evaluation.	Improved competencies, broader access to learning, and more consistent digital work practices.
Long term (4-5 years)	More even competency levels, a continuous learning culture, integrated competency management, and stronger information security.	Adaptive digital governance and fast, transparent, innovative, and high-quality public services.

CONCLUSION

The strategies for improving human resource digital competencies at the Communication and Informatics Office of Mesuji Regency are implemented through education and training, competency-based promotion, and job rotation. Education and

training strengthen technical capabilities and a digital mindset; promotion increases motivation and improves placement suitability; and rotation broadens experience, cross-functional capabilities, and collaboration. These three strategies are more effective when supported by continuous learning, knowledge sharing, mentoring, competency mapping, and periodic evaluation. Their implementation has supported the use of government applications, digital data management, and SPBE implementation, but it continues to face uneven competencies, discontinuous training, the absence of a competency map, budget limitations, and differences in adaptability. The Communication and Informatics Office of Mesuji Regency needs to establish an integrated digital competency management policy, define competency standards for each position, provide regular needs-based training, expand external collaboration, and strengthen a digital learning culture. Future studies may quantitatively measure the effectiveness of each strategy and examine its relationship with employee performance, SPBE maturity, and public service quality.

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