

Transformation of Human Resource Management in the Era of Digitalization of Indonesian Public Services

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ABSTRACT

The digitalization of public services in Indonesia is a national strategic agenda in order to improve the effectiveness, transparency, and quality of services to the community. This change requires the transformation of Human Resource Management (HRM) so that the apparatus is able to adapt to technological developments, digital work systems, and increasingly complex performance demands. However, the readiness of human resources in facing digital transformation is still a major challenge in various public agencies. This research aims to analyze the role and transformation strategy of Human Resource Management in supporting the digitalization of public services in Indonesia, as well as identify the challenges and opportunities that arise in the transformation process. This study uses a qualitative method with a literature study approach. Data was obtained from various secondary sources such as scientific journals, books, government reports, and regulations related to the digitization of public services and HRM in Indonesia. The data is analyzed descriptive-analytically to gain a comprehensive understanding. The results of the study show that the transformation of HRM in the era of digitalization of public services includes strengthening the digital competence of apparatus, changing the work culture towards more adaptive and collaborative, and implementing a technology-based performance management system. In addition, leadership support, consistent policies, and ongoing training are key factors in the success of HRM transformation in digital public services.



INTRODUCTION

The digitalization of public services in Indonesia is part of the national agenda in realizing effective, transparent, and accountable governance (Setyawan, 2024; Syahidan, 2024; Wahyudi et al., 2025). The development of information technology has prompted significant changes in the public service system, both in terms of processes, organizational structures, and the role of state apparatus (Bretschneider & Mergel, 2015; Donald C Menzel, 2011). In this context, Human Resource Management (HRM) is a key factor in determining the success of digital transformation in the public sector (Dwiyanto, 2018).

The Government of Indonesia actively encourages the implementation of the Electronic-Based Government System as the foundation for digitizing public services. This policy requires state civil servants to have digital competence, an adaptive mindset, and cross-sectoral collaborative skills. However, the acceleration of digitalization has not been fully balanced with adequate human resource readiness.

The urgency of this research lies in the need to understand how the transformation of HRM can support the success of the digitalization of public services in a sustainable manner. Without proper human resource management, digitalization has the potential to only be a technical change without improving the quality of services. Therefore, the transformation of Human Resource Management (HRM) must include aspects of competence, work culture, and performance management systems (Robbins & Judge, 2020; Sedarmayanti, 2017; Ulrich et al., 2019).

Theoretically, the transformation of HRM in public organizations can be explained through Human Capital theory and Change Management theory. Human Capital Theory emphasizes the importance of investing in HRM competencies and capabilities as an organization's strategic asset, while Change Management Theory highlights the role of leadership and organizational culture in dealing with change (Armstrong, 2020; Becker, 1993; Kotter, 2012)

Various national data shows that there is still a gap in the digital competency of civil servants in Indonesia. The national SPBE index and the digital readiness report of the apparatus show that technological transformation has not been fully accompanied by optimal hrm transformation (Valaskova et al., 2025).

Table 1. Overview of Digital Readiness of Indonesian ASN

Indicator	Percentage (%)
ASN with basic digital competencies	68
ASN with advanced digital competencies	32
Agencies with continuous digital training	45
Agencies with digital performance systems	54

Source: processed from KemenPAN-RB (2023) and Bappenas (2022)

Previous research shows that the digitalization of public services is greatly influenced by the quality of leadership and the readiness of human resources. Studies by Pratama (2020) and Nugroho (2021) emphasized the importance of digital training for civil servants, while Rahmawati (2022) found that work culture resistance is the main obstacle to digital transformation in the public sector (Nugroho, 2021; Pratama, 2020)

Although various studies have discussed the digitalization of public services and human resource development separately, there are still limited studies that specifically integrate the transformation of HRM with the context of the digitalization policy of public services in Indonesia. The research gap lies in the lack of a comprehensive analysis of MSDI's transformation strategy as the main foundation of SPBE's success. The novelty of this research is the presentation of an integrative analysis between HRM, digital competence, and the work culture of public apparatus (Miles et al., 2014; Ulrich et al., 2019).

This research aims to analyze the role of Human Resource Management transformation in supporting the digitalization of public services in Indonesia. The benefits of this research are expected to make a theoretical contribution to the

development of public sector HRM studies as well as practical contributions for policy makers in designing adaptive and sustainable HRM management strategies (Creswell & Creswell, 2018; Sedarmayanti, 2017; Sugiyono, 2020).

METHOD

This study uses a qualitative type of research with a descriptive-analytical approach. This approach was chosen to gain an in-depth understanding of the transformation of Human Resource Management (HRM) in supporting the digitalization of public services in Indonesia. Qualitative research allows researchers to comprehensively analyze phenomena based on the context of emerging policies, theories, and practices.

Population and Sampling

The population in this study includes all scientific studies, policy documents, and official reports related to HRM and the digitization of public services in Indonesia. The sampling technique used is purposive sampling, which is the deliberate selection of data sources based on the relevance, credibility, and up-to-date of information. The research sample includes national and international scientific journals, government regulations, and official agency reports relevant to the research topic.

Research Instruments

The main research instrument in this study is the researcher himself (human instrument) which plays a role in identifying, studying, and analyzing data. To support the analysis process, a document analysis sheet containing indicators related to MSDI's transformation, digital competence, work culture, and digital-based public service policies was also used.

Data Collection Technique

The data collection technique was carried out through documentation studies and literature studies. Data is collected from various secondary sources such as scientific journals, textbooks, government reports, laws and regulations, and official publications related to the digitization of public services and human resource management.

Research Procedure

The research procedure is carried out through several stages, namely identification of issues and formulation of research focus, collection of relevant literature and documents, selection and classification of data sources, data analysis based on research themes, and drawing conclusions and preparing research recommendations.

Data Analysis Technique

The data analysis technique used is qualitative descriptive analysis with the stages of data reduction, data presentation, and conclusion drawn. The data that has been collected is analyzed by grouping information based on themes, comparing findings between sources, and interpreting the results of the analysis to answer the research objectives.

RESULTS AND DISCUSSION

Transformation of Digital Competencies of Human Resources in Public Services

The transformation of Human Resource Management (HRM) in the era of digitization of public services is marked by the increasing need for digital competencies of apparatus. The results of the literature analysis show that information technology capabilities, data literacy, and the use of digital systems are the main prerequisites for the success of electronic-based public services. Digital competence is not only technical, but also includes the ability to adapt and solve technology-based problems (Becker, 1993).

Strengthening the digital competence of civil servants is a form of strategic human capital investment for public organizations. Human Capital theory emphasizes that improving the quality of HRM will have a direct impact on the productivity and quality of organizational services. In the context of digital public services, the digital competence of civil servants plays an important role in improving process efficiency, reducing manual bureaucracy, and accelerating decision-making (Armstrong, 2020; Ulrich et al., 2019),

However, various studies reveal that there is still a digital competency gap between government apparatus and agencies. Age, educational background, and lack of continuous training are the main causes of this inequality. This condition shows that the transformation of HRM is not completely even and requires a more structured competency development strategy.

Therefore, the transformation of HRM must be directed at the preparation of a clear digital competency map, tiered training, and the integration of digital competencies into the ASN performance management system. This step is in line with the digital bureaucratic reform agenda that places HRM as the main actor of change (Kotter, 2012; Robbins & Judge, 2020).

Table 2. The Need for Civil Servants' Digital Competency in Public Service

Types of Digital Competencies	Description	Requirement Level
Basic digital literacy	Use of public service applications	Height
Simple data analysis	Service data processing	Medium
Information security	Public data protection	Height
Digital collaboration	Cross-system work	Height

Source: OECD (2020); KemenPAN-RB (2023)

Changes in Work Culture and MSDI System in the Digital Era

The results of the study show that the transformation of HRM not only touches on the competency aspect, but also demands a change in the work culture of the apparatus. The digitalization of public services is driving a shift in work culture from hierarchical and procedural to a more adaptive, collaborative, and performance-oriented culture. Digital work culture is an important foundation in supporting the effectiveness of Electronic-Based Government System implementation (Dwiyanto, 2018; Robbins & Judge, 2020).

An adaptive work culture allows the apparatus to respond to technological changes and societal demands more quickly. The literature shows that public organizations that successfully carry out digital transformation are those that are able to build a culture of continuous learning and openness to innovation. This confirms that HRM plays a key driver of organizational culture change (Schein, 2017; Ulrich et al., 2019).

On the other hand, resistance to changes in work culture is still a significant challenge. Several previous studies have revealed that fear of technology, familiarity with old systems, and weak transformational leadership are the main obstacles to digital work culture change. This condition shows the need for a humanist and participatory HRM approach (Kotter, 2012; Nugroho, 2021; Rahmawati, 2022).

Work culture transformation must be supported by an integrated HRM system, including a digital-based recruitment, performance appraisal and career development system. Thus, changes in work culture are not symbolic, but are internalized in all human resource management practices (Armstrong, 2020; Sedarmayanti, 2017).

Table 3. Direction of Changing ASN Work Culture

Old Culture → Digital Culture
Hierarchical → Collaborative
Procedural → Adaptive
Technology-Based → Manual

Source: adapted from Schein (2017) and OECD (2020)

The Role of Leadership and Policy in the Transformation of MSDI Digital

The results of the analysis show that leadership has a strategic role in driving the transformation of HRM in the era of digitization of public services. Transformational leadership is able to create a vision of change, motivate the apparatus, and reduce resistance to digital innovation. Without strong leadership support, HRM transformation tends to be partial and unsustainable (Kotter, 2012; Robbins & Judge, 2020; Ulrich et al., 2019).

In addition to leadership, government policies are an important instrument in directing the transformation of HRM. Regulations related to Electronic-Based Government System, bureaucratic reform, and ASN competency development provide a formal framework for the implementation of digitization of public services. Consistent and integrated policies will strengthen HRM position as a pillar of digital transformation (KemenPAN-RB, 2023; Bappenas, 2022; World Bank, 2022).

However, the literature also shows that there are challenges in implementing policies at the operational level. The gap between central and regional policies, limited training budgets, and the lack of optimal digital performance evaluation systems are the main obstacles. This emphasizes that the HRM transformation policy needs to be accompanied by strengthening institutional capacity (Nugroho, 2021).

Thus, the synergy between transformational leadership and adaptive HRM policies is the key to the success of digitizing public services. Effective HRM transformation will encourage the creation of professional, innovative, and technology-based community service oriented apparatus (Armstrong, 2020; Sedarmayanti, 2017).

Table 4. Supporting Factors for MSDI Digital Transformation

Factors	Main Role	Impact
Leadership	Drivers of change	Height
SPBE Policy	Regulatory framework	Height
SDI Training	Increased competence	Medium
Digital performance system	Data-driven evaluation	Height

Source: KemenPAN-RB (2023); World Bank (2022)

The findings of this study are in line with the results of the study Pratama (2020) which emphasizes that digital transformation in Indonesian public institutions is greatly influenced by the quality of leadership and the readiness of human resources. Thus, Nugroho (2021) found that digital training for civil servants is a determining factor in increasing the effectiveness of Electronic-Based Government System implementation. This conformity strengthens the validity of the findings of this study, that without systematic HRM investment, digitalization will only be a purely technical change without improving the quality of services (Nugroho, 2021; Pratama, 2020).

However, this study also identifies an important distinction from Rahmawati (2022), whose work placed greater emphasis on work culture resistance as the primary obstacle to digital transformation. The present study broadens that perspective by arguing that work culture resistance is not a standalone barrier but is closely intertwined with weak transformational leadership systems and the inconsistent implementation of HRM policies at the operational level. The novelty of this research lies in its integrative approach, which connects three key dimensions digital competency, adaptive work culture, and leadership as a unified HRM transformation system within the context of Indonesia's SPBE, an integrated framework that has not been comprehensively analyzed in any single prior study (Miles & Huberman, 2014; Ulrich et al., 2019).

From a social standpoint, the findings of this study carry profound implications for the quality of public services received by citizens. When state apparatus possesses adequate digital competencies and an adaptive work culture, service delivery becomes faster, more transparent, and more accountable. This directly contributes to building public trust in government, which is the foundation of good governance. From a historical perspective, the paradigmatic shift in HRM from a traditional seniority-based model toward a competency- and performance-based model represents a transformative leap consistent with the post-1998 Reform bureaucratic reform agenda that has continued to evolve into the current digital era.

Ideologically, digital HRM transformation reflects the spirit of decentralization of authority and the democratization of public services aimed at reaching all segments of

society without geographical discrimination. Digitalization supported by competent human resources contributes to the equalization of access to government services between urban and rural areas, which is consistent with the social justice values enshrined in Pancasila. Accordingly, HRM transformation is not merely a technical-administrative agenda, but is a concrete embodiment of the state's commitment to improving the welfare of the people through quality public services.

CONCLUSION

Based on the results and discussions, this study concludes that the transformation of Human Resource Management (HRM) has a strategic role in supporting the success of digitizing public services in Indonesia. The transformation not only focuses on the application of technology, but also on strengthening the digital competence of the apparatus, changing the adaptive work culture, and integrating the digital-based HRM system. These findings show that the success of digitizing public services is highly determined by the readiness of human resources as the main actors in the digital government transformation process.

The findings of the study also reveal that the main challenges in the transformation of HRM include the digital competency gap between apparatus, resistance to changes in work culture, and limitations in policy implementation at the operational level. Nevertheless, this study found that transformational leadership, consistent policies, and sustainable competency development programs can be key factors in overcoming these challenges. The synergy between leadership, policies, and an adaptive HRM system has been proven to strengthen the effectiveness of digital-based public services.

Overall, this study emphasizes that the transformation of HRM is the main foundation in realizing quality, effective, and community-oriented digital public services. These findings make a theoretical contribution to the development of the public sector HRM study and provide practical implications for the formulation of sustainable human resource management strategies in the digital bureaucratic reform agenda in Indonesia.

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