

Original Article (Mixed)

Design and validation of a strategic digital human resources management model in public institutions in the country

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Receive:

23 July 2025

Revise:

30 August 2025

Accept:

02 October 2025

Keywords:

Strategic Digital
Human Resource
Management,
Digital
Transformation,
Public Organizations
of the Country

Abstract

The present study is applicable-developmental research in terms of its purpose, and seeks to design and validate a strategic digital human resources management model in public institutions in the country. In order to achieve the goal, a mixed exploratory (qualitative-quantitative) research design was used. In terms of data collection, non-experimental (descriptive) research was conducted using a cross-sectional survey method. In the qualitative part, data were collected through semi-structured interviews with 12 experienced managers, senior human resources managers, and information technology managers of the Islamic Revolution Foundation of the Oppressed using purposive sampling. In the quantitative part, the statistical population included managers and experts of the foundation, and 130 people were selected by simple random selection using the Cohen power analysis formula and G*Power software. The data were analyzed using the content analysis method and MAXQDA software, and the partial least squares (PLS) method with SmartPLS software. The results showed that the organization's digital leadership components, technical infrastructure, and digital transformation management infrastructure have a direct impact on digital HRM processes and financial and non-financial performance. Also, the operational dimensions of HR including digital recruitment and hiring, digital deployment, digital improvement, and digital retention of HR systematically lead to the realization of strategic digital HRM.

Please cite this article as (APA): Taheri, M., Memarzadeh Tehran, G and pilehvari, N. (2026). Design and validation of a strategic digital human resources management model in public institutions in the country. *Management and Educational Perspective*, 8(2), 230-258.



<https://doi.org/10.22034/jmep.2025.536477.1557>



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Publisher: Research Center of Resource Management Studies and Knowledge-Based Business

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Extended Abstract

Introduction

Digital transformation in recent years has emerged as one of the most significant global trends in organizational management, influencing not only technological industries but also broader economic, social, and cultural sectors (Butt et al., 2024). Public organizations have increasingly realized that mere digitization is insufficient and that a fundamental rethinking of traditional public management approaches is necessary. In this context, emerging technologies such as artificial intelligence, mega-data, the Internet of Things, and cloud computing act as driving forces of innovation (Ferreira & Santos, 2025). Scholars argue that digital transformation is not merely a tool for enhancing efficiency but rather a foundational approach to redefining organizational value creation (Karaminiya et al., 2024). The implications of this transformation extend beyond technology to include organizational structures, culture, and decision-making processes (Pourmoghaddam et al., 2025), encouraging organizations to develop dynamic capabilities and foster continuous learning. Consequently, digital transformation has become a strategic necessity for public organizations as well (Karimi et al., 2024). Among the various organizational domains, human resource management has been most affected by digital transformation. As the primary capital of organizations, human resources require redefinition in the digital age (Akramian et al., 2024). Traditional HRM, which was mainly focused on administrative and recruitment tasks, must now assume a strategic role in creating competitive advantage. In this trajectory, digital tools for recruitment, evaluation, training, and retention have gained increasing importance in enhancing both efficiency and organizational effectiveness (Alexandro, 2025). Hence, the present study addresses the key question: how the strategic digital human resource management model can be designed and validated for public organizations in the country.

Theoretical Framework

Strategic Digital Human Resource Management:

Strategic human resource management is an approach that aligns human resource policies and practices with the organization's overall strategy. This approach is based on the principle that human capital is the most important competitive advantage of organizations in today's dynamic and competitive environment (Armstrong, 2021). The aim of strategic human resource management is to establish a systematic link between business strategies and employee-related decisions. Within this framework, the processes of digital recruitment, training, retention, and development should be designed in a way that supports the organization's overall goals (Mirsepasi, 2023).

Digital Transformation:

The concept of "digital transformation" was first introduced by Patel and McCarthy (2000) and later expanded by Westerman et al. (2011) (Habibi, 2015). This concept goes beyond the digitization of existing processes and emphasizes a fundamental rethinking of business models, organizational structures, and stakeholder experiences in light of emerging technologies (Safdari-Ranjabr et al., 2024). In this framework, technologies such as artificial intelligence, meag-data, the Internet of Things, blockchain, and cloud computing are not merely supportive tools but act as driving forces of innovation and value creation (Wiener et al., 2025).

Research Methodology

This study was conducted within the paradigm of pragmatism and designed with an inductive-deductive approach, being classified as applicable-developmental research. Data

collection was non-experimental (descriptive) and implemented through a cross-sectional survey, using a sequential exploratory mixed-methods strategy to achieve the objectives. In the qualitative phase, data were collected through semi-structured interviews with 12 experts, including experienced managers, senior human resource managers, and IT managers of the Foundation of the Oppressed of the Islamic Revolution, using purposive sampling; the data were then coded through thematic analysis with MAXQDA software. In the quantitative phase, a researcher-made questionnaire was developed based on the qualitative findings, consisting of 10 main constructs and 60 items measured on a five-point Likert scale. Content validity was confirmed through expert judgment as well as CVR and CVI indices, while reliability was verified using Cronbach's alpha and composite reliability (CR), all of which yielded acceptable values. The statistical population consisted of managers and experts of public organizations, and based on Cohen's power analysis formula with G*Power software, a sample size of 140 respondents was determined. The collected data in the quantitative phase were analyzed using the Partial Least Squares (PLS) method with SmartPLS software.

Findings

The results of the model fit analysis indicated that the GOF index was 0.646, higher than 0.36, confirming a strong model fit. The RMS_theta index was 0.095, which is lower than the threshold of 0.12, demonstrating the model's convergent validity. The SRMR index was obtained as 0.049, less than 0.08, showing an appropriate fit. The NFI index was reported as 0.706, higher than 0.6, indicating acceptable model adequacy. The normed Chi-square index was calculated as 2.928, which is below 5, and collectively these results confirm the model's good fit and sufficient validity.

Conclusion

The findings revealed that organizational digital leadership, technical infrastructure, and managerial infrastructure of digital transformation exert a direct and positive influence on digital HRM processes as well as on the financial and non-financial performance of public organizations. Digital human resource development plays a crucial role in strengthening strategic digital HRM, and investment in digital training and skill enhancement of employees contributes to improving HR strategies. Furthermore, digital deployment, recruitment, selection, and retention systematically support the realization of strategic digital human resource management and improve organizational efficiency. A comparison with previous studies showed a strong alignment, as Hosseini et al. (2025) emphasized the importance of digital training and technological tools in HRM, consistent with the present findings. Similarly, Tayebi-Khorami et al. (2025) highlighted the necessity of designing localized indicators and validating managerial tools in digital transformation, which aligns with this study's emphasis on managerial infrastructures. Moreover, Jezni et al. (2024) stressed the role of redesigning organizational structure and culture in achieving digital transformation, consistent with the impact of digital leadership found here. At the international level, Pham et al. (2025) confirmed that digital tools enhance flexibility and work-life balance, which corresponds to the positive role of digital deployment in organizational performance.