



## Digital Transformation in Human Resource Management at Vietnamese Public Universities: Current Status, Challenges and Policy Implications

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### Abstract

Digital transformation has become a strategic priority for higher education institutions worldwide, reshaping governance practices and organizational management. In Vietnam, public universities have increasingly adopted digital technologies to improve operational efficiency, service quality, and institutional competitiveness. Within this context, human resource management (HRM) has emerged as a critical area of transformation. However, the adoption of digital HRM practices remains uneven and faces multiple organizational and managerial challenges.

This study examines the current status of digital transformation in human resource management at Vietnamese public universities and identifies key barriers affecting its implementation. Drawing upon Digital Transformation Theory, Human Capital Theory, the Resource-Based View (RBV), and the Technology Acceptance Model (TAM), the study employs a qualitative approach based on literature review, policy analysis, and conceptual synthesis.

The findings indicate that public universities have made notable progress in the digitalization of personnel administration, recruitment, performance management, professional development, and workforce data management. These developments have improved administrative efficiency, transparency, and decision-making processes. Nevertheless, significant challenges remain, including infrastructure limitations, financial constraints, digital competency gaps, resistance to change, cybersecurity concerns, and leadership-related issues.

The study contributes to the literature by extending research on digital transformation beyond teaching and learning activities to the domain of human resource management. It also provides policy recommendations to support digital HRM implementation and sustainable higher education development in Vietnam.

**Keywords:** digital transformation, human resource management, e-HRM, higher education, public universities, digital governance, workforce analytics, Vietnam

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### 1. Introduction

The rapid advancement of digital technologies has fundamentally reshaped how organizations operate, communicate, and create value. Digital transformation has evolved beyond the adoption of information technologies to become a comprehensive process of organizational change affecting governance structures, operational models, and strategic decision-making. Technologies such as artificial intelligence (AI), big data analytics, cloud computing, and the Internet of Things (IoT) are transforming industries and redefining the nature of work across both public and private sectors. Consequently, digital transformation has become a strategic priority for governments, businesses, and educational institutions worldwide.

Higher education institutions are among the organizations most significantly affected by this transformation. Beyond teaching and research, universities are increasingly expected to improve administrative efficiency, enhance service quality, strengthen accountability, and respond rapidly to technological and societal changes.

The COVID-19 pandemic further accelerated this process by requiring universities to adopt online learning systems, virtual collaboration platforms, and digital administrative practices. International organizations such as the OECD, UNESCO, and the World Bank have consistently emphasized the importance of digital transformation for strengthening institutional resilience, educational quality, and competitiveness.

Within this context, human resource management (HRM) has emerged as a critical area of transformation. Human resources constitute the most valuable asset of higher education institutions because the effectiveness of teaching, research, innovation, and administration depends largely on the capabilities of academic and administrative staff. Traditional HRM systems in universities have often relied on bureaucratic procedures, paper-based documentation, and fragmented information systems, limiting efficiency and organizational responsiveness. Digital transformation offers opportunities to modernize these functions through electronic human resource management (e-HRM), workforce analytics, integrated information systems, and data-driven decision-making.

From a strategic perspective, digital HRM contributes not only to administrative efficiency but also to institutional competitiveness. Human Capital Theory suggests that investments in employee knowledge and competencies generate long-term organizational value, while the Resource-Based View highlights human resources as a source of sustainable competitive advantage. Digital technologies can strengthen these advantages by improving workforce management, professional development, and organizational performance.

Recognizing the transformative potential of digital technologies, the Vietnamese Government has identified digital transformation as a national development priority. The National Digital Transformation Program to 2025, with a vision toward 2030, aims to accelerate the development of digital government, digital economy, and digital society. In response, Vietnamese universities have increasingly invested in digital infrastructure, learning management systems, and online administrative services. Nevertheless, the implementation of digital transformation remains uneven, particularly in relation to human resource management.

Although some universities have successfully digitalized personnel administration, recruitment, performance evaluation, and professional development activities, many institutions continue to face challenges related to infrastructure limitations, financial constraints, digital competency gaps, resistance to organizational change, cybersecurity concerns, and governance issues. As a result, the effectiveness of digital HRM implementation varies considerably across institutions.

Despite growing scholarly interest in digital transformation, existing research has focused primarily on educational technologies and digital learning environments. Relatively little attention has been devoted to human resource management within higher education institutions, particularly in developing countries. In Vietnam, studies examining digital HRM adoption and its implications for university governance remain limited.

Against this background, this study examines the current status of digital transformation in human resource management at Vietnamese public universities, identifies key implementation challenges, and discusses policy implications

for strengthening digital HRM practices. Drawing upon Digital Transformation Theory, Human Capital Theory, the Resource-Based View, and the Technology Acceptance Model, the study develops a conceptual framework for understanding the relationship between digital technologies, workforce management, and institutional governance in higher education.

This study contributes to the literature in three ways. First, it extends research on digital transformation by focusing specifically on human resource management within public universities. Second, it provides a comprehensive analysis of the opportunities and challenges associated with digital HRM implementation in Vietnam. Third, it offers policy recommendations for government agencies, university leaders, and HR departments seeking to strengthen workforce management and institutional effectiveness in the digital era.

## **2. Literature Review and Theoretical Foundations**

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

Digital transformation has become a defining feature of contemporary organizations, fundamentally changing how institutions create value, manage resources, and interact with stakeholders. Beyond the adoption of new technologies, it represents a comprehensive process of organizational change encompassing strategic, structural, cultural, and technological dimensions (Vial, 2019)<sup>[10]</sup>. Technologies such as artificial intelligence (AI), big data analytics, cloud computing, blockchain, and mobile platforms have accelerated innovation and reshaped managerial practices across sectors.

In human resource management (HRM), digital transformation has significantly altered traditional workforce management practices. Recruitment, personnel administration, performance evaluation, employee development, and talent management are increasingly supported by digital systems and data-driven technologies. This evolution has led to the emergence of Electronic Human Resource Management (e-HRM), which facilitates process automation, improves information accessibility, enhances employee engagement, and supports strategic decision-making (Bondarouk & Brewster, 2016)<sup>[3]</sup>.

The literature commonly distinguishes three levels of e-HRM: operational, relational, and transformational. Operational e-HRM focuses on administrative functions, relational e-HRM supports communication and interaction, while transformational e-HRM contributes to strategic workforce planning through workforce analytics and talent management systems (Marler & Fisher, 2013)<sup>[7]</sup>. Consequently, HRM is increasingly evolving from an administrative support function into a strategic partner in organizational development.

### **2.2. Human Resource Management in Higher Education Institutions**

Human resource management plays a central role in higher education institutions because academic and administrative staff are the primary drivers of institutional performance. Unlike capital-intensive organizations, universities derive competitive advantage largely from knowledge creation, innovation, and intellectual contributions. Therefore, workforce management directly influences educational quality, research productivity, international collaboration, and institutional reputation.

Traditionally, HRM in universities has been characterized by bureaucratic procedures, fragmented databases, and paper-based documentation. While these systems support administrative control and compliance, they often reduce efficiency and organizational responsiveness. In response, universities have increasingly adopted Strategic Human Resource Management (SHRM) approaches that align HR practices with institutional objectives. Digital technologies further strengthen this transition by improving information management, decision-making processes, and workforce flexibility (Boxall & Purcell, 2016) <sup>[4]</sup>.

## 2.3. Theoretical Foundations

### 2.3.1. Human Capital Theory

Human Capital Theory (Becker, 1964) <sup>[2]</sup> argues that investments in education, training, and skill development enhance employee productivity and generate long-term organizational value. In higher education institutions, human capital forms the foundation of teaching quality, research excellence, innovation capacity, and institutional reputation. Digital transformation contributes to human capital development by facilitating continuous learning, knowledge sharing, and professional development through digital learning platforms and collaborative technologies.

### 2.3.2. Resource-Based View (RBV)

The Resource-Based View (RBV) emphasizes that sustainable competitive advantage arises from valuable, rare, inimitable, and non-substitutable resources (Barney, 1991) <sup>[1]</sup>. Human resources often satisfy these conditions because employee expertise, knowledge, and experience are difficult to replicate. Within universities, effective workforce management is therefore essential for maintaining competitiveness and achieving long-term success. Digital HRM strengthens these capabilities through improved workforce planning, talent management, and performance evaluation. However, RBV suggests that technology alone is insufficient; value is created when digital technologies are effectively integrated with organizational capabilities and human resources.

### 2.3.3. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) explains technology adoption through two key determinants: perceived usefulness and perceived ease of use (Davis, 1989) <sup>[5]</sup>. In the context of digital HRM, employee acceptance significantly influences implementation success. Universities may invest heavily in technological systems, but transformation outcomes remain limited if employees are unwilling or unable to utilize them effectively. Consequently, technology acceptance is critical for understanding variations in digital HRM adoption.

## 2.4. Research Gap and Analytical Framework

Despite growing scholarly interest in digital transformation, several research gaps remain. Existing studies have focused primarily on digital learning environments and educational technologies, while comparatively limited attention has been devoted to human resource management within higher education institutions. Moreover, much of the digital HRM literature has been developed within corporate contexts, reducing its applicability to public universities.

Research on digital HRM in developing countries remains

limited. In Vietnam, studies have concentrated mainly on educational technology adoption and digital learning systems, whereas workforce management and HRM digitalization have received relatively little scholarly attention. Consequently, there is insufficient understanding of how digital transformation influences HR practices, organizational capabilities, and governance effectiveness within Vietnamese public universities.

Previous studies have also highlighted the importance of digital leadership, organizational readiness, and workforce analytics in supporting digital transformation. Leadership commitment, workforce competencies, technological infrastructure, and organizational culture are frequently identified as critical determinants of successful digital HRM implementation (Kane *et al.*, 2019) <sup>[6]</sup>. At the same time, workforce analytics enables universities to utilize employee-related data for workforce planning, performance evaluation, and strategic decision-making.

To address the identified gaps, this study develops an analytical framework integrating Digital Transformation Theory, Human Capital Theory, the Resource-Based View, and the Technology Acceptance Model. The framework proposes that digital transformation initiatives influence HRM effectiveness through technology adoption, workforce development, leadership capacity, and organizational readiness. These factors collectively shape the ability of universities to strengthen workforce management, improve governance quality, and enhance institutional performance in the digital era.

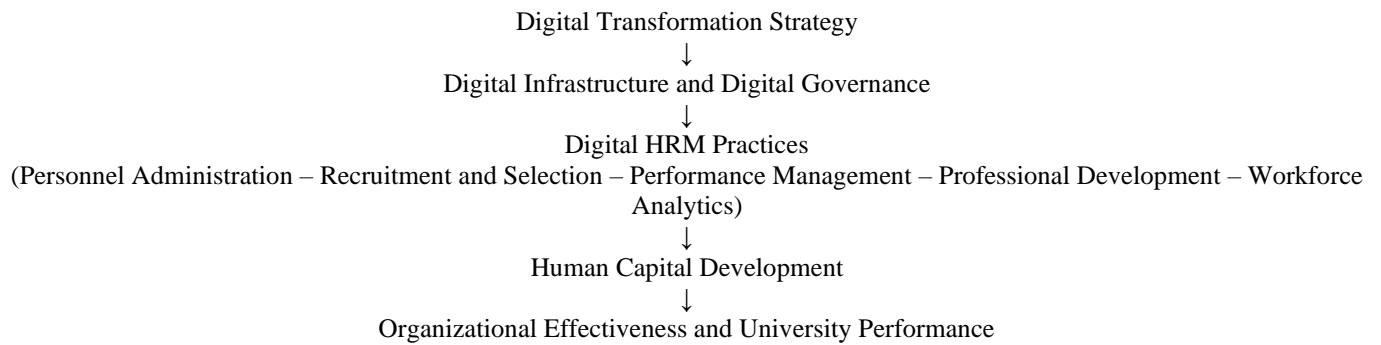
## 3. Research Methodology

This study adopts a qualitative research approach based on conceptual analysis and systematic document review to examine the current status, challenges, and policy implications of digital transformation in human resource management (HRM) at Vietnamese public universities. A qualitative approach is appropriate because the study aims to develop a comprehensive understanding of digital HRM implementation rather than test causal relationships through statistical analysis.

The study relies primarily on secondary data collected from academic and policy sources. Academic literature was obtained from internationally recognized databases, including Scopus and Web of Science, while reports published by international organizations such as the OECD, UNESCO, and the World Bank were reviewed to identify global trends and best practices. To contextualize the analysis within Vietnam, national policy documents related to digital transformation and higher education development were also examined.

The collected materials were analyzed through thematic, content, and comparative analyses. These methods enabled the identification of major themes related to digital HRM implementation, implementation challenges, and potential policy solutions within the higher education sector.

Based on the literature review and analytical findings, the study develops a conceptual framework integrating Digital Transformation Theory, Human Capital Theory, the Resource-Based View (RBV), and the Technology Acceptance Model (TAM). The framework explains how digital transformation initiatives influence HRM practices and organizational performance through the interaction of technology, human capital, leadership, and organizational readiness.



**Fig 1:** Analytical Framework of Digital HRM Transformation in Vietnamese Public Universities

**Moderating Factors**

- Organizational Readiness
- Digital Leadership
- Employee Digital Competencies
- Financial Resources
- Institutional Culture

**4. Findings and Discussion**

**4.1. Current Status and Challenges of Digital HRM Adoption**

The findings indicate that digital transformation has become an increasingly important component of governance modernization within Vietnamese public universities. Driven by national digital transformation policies and higher education reform initiatives, universities have gradually integrated digital technologies into a wide range of human resource management (HRM) activities. Although implementation levels vary across institutions, digital HRM adoption has expanded significantly over the past decade.

One of the most visible developments concerns the digitalization of personnel administration. Many universities have implemented Human Resource Information Systems (HRIS) and electronic personnel databases to improve workforce management and administrative efficiency. Recruitment and selection processes have also become increasingly digitalized through institutional websites, online recruitment platforms, and social media channels. Similarly, performance management systems are being used to monitor teaching performance, research productivity, and professional development activities.

Digital professional development has expanded through online learning platforms and virtual training programs, while integrated information systems increasingly support workforce planning and strategic decision-making. Overall, administrative functions have experienced the highest levels of digitalization, whereas more advanced applications involving artificial intelligence and predictive analytics remain at an early stage of development.

**Table 1:** Current Digital HRM Practices in Vietnamese Public Universities

| HRM Function              | Current Digital Applications         | Key Benefits                                      |
|---------------------------|--------------------------------------|---|
| Personnel Administration  | Electronic personnel databases, HRIS | Improved efficiency and record management         |
| Recruitment and Selection | Online recruitment platforms         | Greater transparency and broader talent access    |
| Performance Management    | Digital evaluation systems           | Data-driven monitoring and accountability         |
| Professional Development  | E-learning platforms, webinars       | Flexible and cost-effective workforce development |
| Workforce Data Management | Integrated information systems       | Enhanced planning and reporting capabilities      |

Despite these achievements, several challenges continue to constrain digital HRM implementation. Infrastructure disparities, financial limitations, digital competency gaps, resistance to organizational change, cybersecurity concerns, and leadership-related issues remain significant barriers. Universities with stronger resources are generally better

positioned to adopt advanced technologies, whereas others continue to face difficulties in modernizing and integrating their systems. In addition, successful digital transformation depends not only on technological investment but also on workforce capabilities, leadership commitment, and organizational readiness.

**Table 2:** Key Challenges and Their Organizational Impacts

| Challenge                        | Organizational Impact                                   |
|----------------------------------|---|
| Infrastructure Constraints       | Reduced system integration and operational efficiency   |
| Financial Limitations            | Slower implementation and limited innovation capacity   |
| Digital Competency Gaps          | Lower technology adoption and workforce readiness       |
| Resistance to Change             | Delayed transformation processes                        |
| Cybersecurity Risks              | Threats to information security and institutional trust |
| Leadership and Governance Issues | Fragmented implementation and weak strategic alignment  |

**4.2. Discussion of Findings**

The findings demonstrate that digital transformation in human resource management extends beyond the adoption of technological tools and involves broader organizational and strategic changes. Consistent with Digital Transformation Theory, technology serves as an enabler rather than the sole

driver of transformation. Universities with stronger leadership, organizational readiness, and workforce capabilities appear better positioned to realize the benefits of digital HRM initiatives.

From the perspective of Human Capital Theory, investments in digital literacy and workforce development contribute

directly to implementation effectiveness and institutional performance. The findings also support the Resource-Based View, suggesting that sustainable advantages emerge when digital technologies are effectively integrated with human expertise and organizational capabilities. Furthermore, the Technology Acceptance Model helps explain variations in adoption outcomes, as employee acceptance remains a critical determinant of transformation success.

Overall, digital HRM offers significant opportunities for Vietnamese public universities to improve workforce management, governance effectiveness, and institutional competitiveness. However, realizing these benefits requires continued investment in infrastructure, leadership

development, workforce competencies, and organizational readiness.

### 5. Policy Implications for Digital HRM Development

The findings indicate that successful digital transformation in human resource management requires coordinated efforts among government agencies, university leaders, HR departments, and employees. Beyond technological investment, effective digital HRM depends on supportive policies, leadership commitment, workforce competencies, and organizational readiness. Accordingly, several policy implications are proposed to strengthen digital HRM implementation in Vietnamese public universities.

**Table 3:** Policy Recommendations for Key Stakeholders

| Stakeholder                       | Key Recommendations   |
|-----------------------------------|---|
| Government Agencies               | Strengthen digital HRM policies, expand infrastructure investment, and support capacity-building programs |
| Public Universities               | Develop digital HR strategies, strengthen digital leadership, and enhance organizational readiness        |
| HR Departments                    | Adopt workforce analytics, implement data-driven HRM, and improve talent management practices             |
| Academic and Administrative Staff | Enhance digital literacy, participate in continuous learning, and develop AI-related competencies         |
| University Leaders                | Integrate digital transformation into institutional strategies and promote innovation-oriented cultures   |

Overall, digital transformation in university HRM requires a balanced approach that combines technological investment, workforce development, organizational change, and effective governance. By strengthening institutional capabilities and addressing existing barriers, Vietnamese public universities can improve workforce management effectiveness, enhance governance quality, and support the broader objectives of national digital transformation.

### 6. Conclusion and Future Directions

Digital transformation has become a strategic priority for higher education institutions worldwide, fundamentally reshaping university governance and management practices. Within this context, human resource management (HRM) plays a critical role because the effectiveness of teaching, research, and administrative activities depends largely on the capabilities of academic and administrative staff. Consequently, the digital transformation of HRM represents an important component of higher education modernization. This study examined the current status of digital transformation in human resource management at Vietnamese public universities, identified key implementation challenges, and proposed policy implications for sustainable development. The findings indicate that universities have made notable progress in the digitalization of personnel administration, recruitment, performance management, professional development, and workforce data management. These developments have improved administrative efficiency, transparency, and workforce management effectiveness.

However, digital transformation remains uneven across institutions. Technological infrastructure limitations, financial constraints, digital competency gaps, resistance to change, cybersecurity concerns, leadership issues, and organizational readiness continue to influence implementation outcomes. The findings suggest that digital transformation should be viewed not merely as a technological initiative but as a broader organizational change process involving technology, people, culture, and governance.

From a theoretical perspective, the study confirms the relevance of Digital Transformation Theory, Human Capital Theory, the Resource-Based View, and the Technology Acceptance Model in explaining digital HRM implementation within higher education institutions. The findings emphasize that successful transformation depends not only on technological investment but also on workforce capabilities, leadership commitment, organizational culture, and employee acceptance.

The study contributes to the literature by extending research on digital transformation beyond teaching and learning activities to the domain of human resource management. In addition, it provides insights into the opportunities and challenges faced by public universities in Vietnam and other developing countries undergoing digital transformation.

Despite these contributions, the study is limited by its conceptual and qualitative nature, relying primarily on literature review and policy analysis. Future research may employ quantitative methods, case studies, or comparative analyses to examine digital HRM implementation across different institutional contexts. Further studies could also investigate the impact of artificial intelligence, workforce analytics, and digital leadership on organizational performance in higher education.

In conclusion, universities that successfully integrate technological innovation, workforce development, effective leadership, and sound governance practices will be better positioned to enhance organizational performance, strengthen institutional competitiveness, and support the long-term objectives of digital transformation in higher education.

### References

- Barney J. Firm resources and sustained competitive advantage. *J Manag.* 1991;17(1):99-120. <https://doi.org/10.1177/014920639101700108>
- Becker GS. *Human capital: a theoretical and empirical analysis, with special reference to education.* Chicago: University of Chicago Press; 1964.
- Bondarouk T, Brewster C. *Conceptualising the future of*

- HRM and technology research. *Int J Hum Resour Manag.* 2016;27(21):2652-71. <https://doi.org/10.1080/09585192.2016.1232296>
4. Boxall P, Purcell J. *Strategy and human resource management*. 4th ed. London: Palgrave Macmillan; 2016.
  5. Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Q.* 1989;13(3):319-40. <https://doi.org/10.2307/249008>
  6. Kane GC, Phillips AN, Copulsky J, Andrus G. *The technology fallacy: how people are the real key to digital transformation*. Cambridge (MA): MIT Press; 2019.
  7. Marler JH, Fisher SL. An evidence-based review of e-HRM and strategic human resource management. *Hum Resour Manag Rev.* 2013;23(1):18-36. <https://doi.org/10.1016/j.hrmr.2012.06.002>
  8. OECD. *Digital transformation and the future of higher education*. Paris: OECD Publishing; 2021.
  9. UNESCO. *Reimagining our futures together: a new social contract for education*. Paris: UNESCO; 2021.
  10. Vial G. Understanding digital transformation: a review and a research agenda. *J Strateg Inf Syst.* 2019;28(2):118-44. <https://doi.org/10.1016/j.jsis.2019.01.003>
  11. Bộ Giáo dục và Đào tạo. *Chuyển đổi số trong giáo dục đại học Việt Nam giai đoạn 2021–2025*. Hà Nội: Nhà xuất bản Giáo dục Việt Nam; 2022.
  12. Thủ tướng Chính phủ. *Quyết định số 749/QĐ-TTg ngày 03/6/2020 phê duyệt Chương trình Chuyển đổi số quốc gia đến năm 2025, định hướng đến năm 2030*. Hà Nội; 2020.

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