



Exploration of Enterprise Process Management in the Era of Digital Transformation

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Abstract: The aim of this study is to investigate the potential for digital transformation within the realm of human resource management, specifically in the context of the digital economy. The primary focus of this research encompasses the driving forces, directions, and consequences of such digital transformation in human resource management. This study postulates that five key factors—internal customer digital needs, industry-level digital innovation, competitive challenges, digital innovation governance, and the requirements of the digital era—act as catalysts for the digital transformation of human resource management. In particular, the research underscores that the digitization of human resource management processes involves the application of cutting-edge digital technologies to functions like recruitment, training and development, and performance assessment. It's essential to emphasize that while digital transformation yields advantages for business development, we must also consider its potential repercussions, including the process of transitioning from old to new human resource management systems and the possible adverse effects of the new system.

Keywords: management, enterprise, digital transformation

1. Introduction

The present era, often referred to as the “digital age”, has led to a global consensus among enterprises regarding the imperative of digital transformation. Technologies such as 5G, cloud computing, big data, artificial intelligence, IoT, blockchain, and others have emerged as pivotal forces driving and facilitating this transformation (Yu & Jinajun, 2020). In order to respond swiftly to the rapidly evolving environment, businesses need to adapt by reshaping their business models and leveraging the exponential changes brought about by the full embrace of the digital era[1].

The outbreak of COVID-19 brought about a significant shift in attitudes towards digital transformation. Prior to the outbreak, it may have been seen as a choice for rapid growth or expansion. However, the pandemic underscored the necessity of digitalization and the integration of online and offline operations for survival. Enterprises failing to embrace these changes may face existential challenges[2].

Digital transformation has not only profoundly impacted various aspects of our lives but has also significantly reshaped the processes and roles within human resource management (HRM) (Schmid & Pscherer, 2021). As new digital technologies continue to evolve, the way HR interacts with information and data has also evolved. Digital technologies have deeply influenced certain HRM processes, such as employee recruitment, performance evaluation, and human resource development, enhancing service delivery to stakeholders.

Digital HRM optimizes time management and increases the efficiency of HRM functions (Mosca, 2020). As pointed out by Demeijer (2017), digital transformation has made HRM processes more straightforward and rapid, enabling HRM specialists to focus on meaningful initiatives within their domains. Digital HRM approaches are gaining prominence and are instrumental in shaping HR strategy and the organization as a whole [3].

Some scholars, like Parry and Strohmeier (2014), emphasize the impact of HRM digital transformation and highlight the challenges that HRM is likely to face in the future. Given the current digital technology landscape, it is essential to elucidate the concept, driving factors, transformation directions, and implications of digital HRM.

However, our research reveals that there is a dearth of literature specifically addressing digital HRM changes, while extensive discussions exist on digital innovation in business, industry, sales, and overall organizational management. One possible explanation is that HRM is only a partial function within organizational management and may struggle to capture the attention of leaders. Additionally, it may not always align with cutting-edge business interests. Our literature analysis identified only 22 studies on HRM digital transformation, indicating a significant gap that merits further exploration[4].

This study aims to address the following questions: What constitutes digital transformation? What are the driving forces behind HRM digital transformation? What direction is HRM digital transformation taking? What are the implications of this

transformation?

2. Designing and research

2.1 Results

In this section of the study, we find it essential to distinguish several concepts for the sake of subsequent discussions: digitization, digital transformation, digital innovation, and the digital workforce. Digitization is distinct from digital transformation, which is defined as the "ability to convert an existing product or service into a digital version that offers greater advantages than a tangible product." Murphy (2018) explains that digitization involves converting analog information or signals into a digital format that can be understood by computer systems or electronic devices. Digitization is not solely about the utilization of digital tools within an organization; it is a tool for implementing innovative business models and long-term corporate strategies. Verhoef et al. (2021) argue that digitization refers to the adaptation of digital technology to alter existing business processes. This adaptation necessitates the integration of digital technology to shape a new organizational technological structure, a transformation made possible by timely digital intervention. In the digital realm, information technology can facilitate business process relationship management and is highly suitable for organizational operations, playing a pivotal role in driving innovation within human resource management (Leviäkangas, 2016). Digitization contributes to enhanced efficiency in organizational processes and enhances the customer experience (Pagani & Pardo, 2017). Therefore, digital technologies not only result in cost savings but also enhance the internal service customer experience[5].

In summary, digital transformation is a pervasive phenomenon in organizations, leading to fundamental changes in their business models through innovative digital technologies. Consequently, organizations embarking on digital transformation must strike a balance between their existing business models and new ones. As digital transformation advances, the existing business model may become obsolete (Teece, 2010). Thus, organizations need to transition from partial digital changes to a completely new digital business model [6].

The term "digital workforce" refers to a group of individuals influenced by new digital technologies, affecting their attitudes, skills, and actions. Professionals, such as HR practitioners, are required to make significant strategic and operational changes in response to these technological shifts.

2.2 Discussion

The New roles are being established in response to the growing digitization of HRM (DiRomualdo et al., 2018). As HRM delivery becomes increasingly digital, many current roles are expected to become more specialized, and new roles will emerge. HRM must proactively plan for these role changes to align with the needs of enterprise digital transformation and leverage these opportunities to enhance HRM capabilities, service delivery, and job performance. A significant portion of HR tasks will become automated. Where administrative positions are reduced, affected employees will receive appropriate training and transition support to fulfill the newly created roles within the HRM department. For instance, a Workforce Data Project Leader would be responsible for end-to-end data analytics projects, data operations consolidation, and calculations[7].

The response of existing personnel is critical to this transition (Sotnikova et al., 2020). The digitalization of work processes carries the risk of layoffs at lower and middle-skill levels. However, companies can mitigate this by offering retraining opportunities to employees and helping them transition to more engaging roles within their field. Potential challenges in implementing such programs include employee resistance, especially among older generations, to digital transformation, and a lack of motivation among employees to acquire digital economy competencies and participate in the digital development of the organization (Vakulenko et al., 2016) [8].

Developing digital system capabilities is essential (Sotnikova et al., 2020). Success in the new model may require HRM teams to collaborate with IT to incorporate design thinking, perform integration analysis, and make informed decisions regarding software vendors. This represents a new landscape for HRM technology and project teams, creating new career opportunities and influencing HRM's role within the organization[9].

(1) Impact on Performance.

Digitally transformed HRM is poised to leverage digital technologies to enhance business performance. Integrating digital HRM processes leads to performance improvements in information systems functions, increased transparency, and cost reductions (Osmundsen et al., 2018). This can foster digital HRM strategies that refine processes, introduce modularity, and bring innovative practices and creative initiatives.

The benefits of digital HRM include increased productivity through organizational efficiency, reduced bureaucracy, cost savings, and the creation of additional value (Vardarlier, 2020). It streamlines HRM's operational processes, enhances productivity, and allows HR to shift towards strategic areas that benefit the organization. The user-friendliness and speed of

digital HRM systems make them a preferred and widely accessible choice for the organization and its management, allowing employees to enhance their skills and improve their performance (Öge, 2004).

(2) Digital Ethics.

As organizations continue to advance their digital HRM transformation, it is essential to address the ethical considerations raised by digital technology. Lobschat et al. (2021) have introduced the concept of Corporate Digital Responsibility (CDR), which encompasses a set of accepted principles and values guiding a company's major information technology and data processes. These processes encompass technology and data creation and access, operations and decision-making, scrutiny and impact assessment, and the refinement of technology and data. The importance of CDR is underscored by its relevance to various stakeholder perspectives. Operational guidelines for common CDR norms and values can be established and jointly implemented by stakeholders in the digital HRM transformation process[10].

2.2.1 Tables

Table 1. Results of Heterogeneity Analysis

| VAR | SOEs | NSOEs |
|-----|-----------------------|------------------------|
| | EDT | EDT |
| DIF | 0.0052 (0.0043) | 0.0051*** (0.0015) |
| Con | -4.0299** (1.8767) | -6.7551*** (0.6236) |
| CV | YES | YES |
| Obs | 2704 | 20,208 |
| R2 | 0.2825 | 0.3410 |

2.2.2 Figures

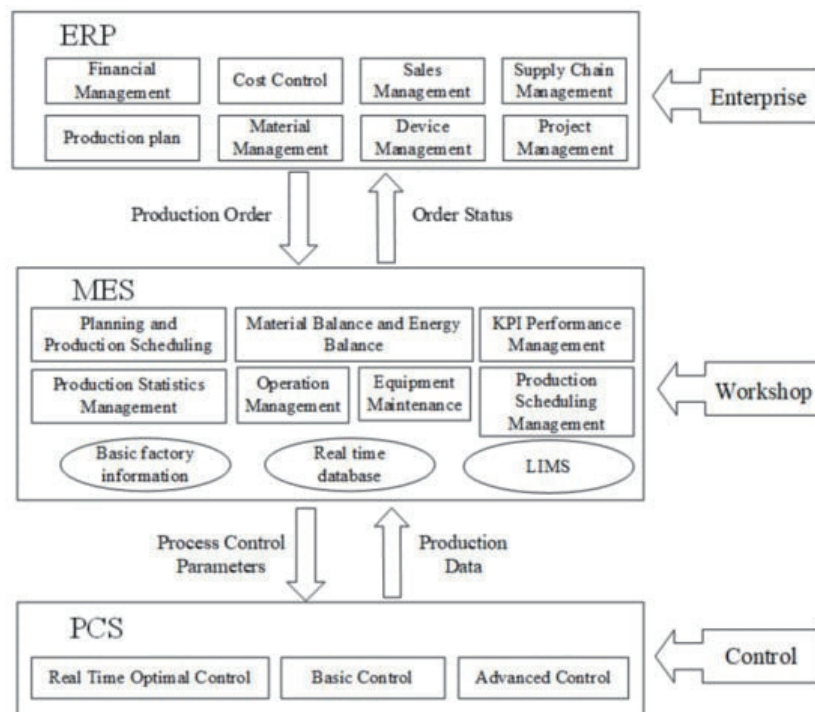


Figure 1. The Digital Information Management System Model of Manufacturing Enterprises

3. Conclusion

This research contributes novel management insights that can inform government actions aimed at fostering the growth of DIF and expediting and intensifying the digital transformation of businesses. For governmental authorities, it is essential to acknowledge the significance of DIF in promoting EDT and the efficiency-enhancing role of technological innovation.

Specifically, the internet technology integrated into DIF can be harnessed to stimulate innovation within small-scale entities, accelerate the transfer and deepening of pivotal core technological accomplishments, facilitate precise alignment between innovation and industrial value chains, and expedite the progress toward China's goal of becoming an innovative nation.

For businesses, amidst the flourishing digital economy of China, they have the opportunity to leverage DIF to expedite their digital transformation and better align themselves with the trajectory of China's high-quality development. On one hand, enterprises should fully recognize the positive impact of technological innovation and utilize the financial resources acquired through DIF to engage in innovative initiatives, ultimately achieving a profound digital evolution within the industrial value chain. On the other hand, it is imperative to enhance the selection and promotion systems for executives, motivating them to employ DIF as a supportive mechanism for making digital transformation decisions based on innovation orientation, and to mitigate the adverse effects of executives' financial backgrounds to a certain extent.

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