

The Impact of Digitalization on Human Resource Management Practices

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Abstract

Human Resource Management (HRM) is a discipline that focuses on managing employees within an organization to achieve the company's strategic goals. With the advent of the digital era and the Fourth Industrial Revolution, digitalization has become a significant force that has transformed various sectors, including HRM. Understanding the impact of digital transformation on HRM is important for enhancing organizational performance. This article reviews relevant literature related to the main problem addressed. The findings reveal how digital transformation in HRM enhances the efficiency and effectiveness of HR processes by streamlining employee recruitment, selection, orientation, training, and development. Technology also increases employee engagement through self-service portals and communication platforms that facilitate better collaboration and interaction, thereby boosting employee productivity. Digital engagement platforms enhance internal communication, employee satisfaction, and retention by improving interaction and feedback mechanisms. However, digitalization introduces challenges, including concerns over data security and privacy, as well as the need for HR professionals to continually adapt to new technologies. Therefore, companies must understand the potential for both success and failure in digital strategies, especially in Human Resource Management practices. This understanding is crucial for ensuring increased efficiency and competitiveness in the digital era.

Keywords: Human Resources Management; Hospital Management; Digitalization; Management System

INTRODUCTION

Human Resource Management (HRM) is a discipline focused on managing employees within an organization to achieve the company's strategic goals. The basic concept of HRM encompasses various aspects, such as workforce planning, recruitment and selection, employee development, performance management, and compensation and benefits. The primary goal is to maximize employee contributions toward achieving the company's vision and mission while ensuring employee satisfaction and well-being (Rusby, 2017; Priyono, 2023). With the advent of the digital era and the Fourth Industrial Revolution, digitalization has become a major force that has transformed various sectors, including HRM. The Fourth Industrial Revolution brings technological advancements such as artificial intelligence (AI), big data, and the Internet of Things (IoT), fundamentally changing the way organizations operate and communicate (Hermawanto, 2020; Long et al., 2022). This digitalization has not only introduced new tools but has also impacted traditional HRM paradigms.

Digital transformation in HRM has facilitated the implementation of advanced technologies to enhance the efficiency and effectiveness of HR processes. Cloud-based HRM systems, employee analytics applications, and digital communication tools are examples of innovations that simplify the management of HRM information and processes (Li, 2020; Kamalakannan, 2024). These technologies enable better data collection, faster information processing, and more accurate, data-driven decision-making. The innovation and adoption of novel strategies in HR management in the digital era are crucial for addressing the challenges and opportunities presented by new technologies. Organizations need to design HR strategies that leverage technology to improve productivity, employee satisfaction, and competitiveness.

Approaches such as using analytical tools for performance appraisals, e-learning-based training, and automated recruitment systems exemplify how innovative strategies can be implemented. Additionally, the future of HR management in the digital era offers significant opportunities for further development and change. As technology continues to evolve, HR managers must adapt to new trends, such as using AI in recruitment processes, predictive analytics for workforce planning, and digital platforms for communication and collaboration (Ekuma, 2024). This evolution requires new skills and a more flexible approach to employee management. Therefore, companies and organizations must understand the impact of digitalization and its application in human resource management to enhance productivity and efficiency within the company.

METHODOLOGY

The method of writing a review of this article is based on a search for relevant literature related to the main problem addressed in the review. The literature includes textbooks and journal articles obtained online, which were selected according to their relevance to the theme and title, as well as their feasibility. The literature search was conducted using Google Scholar, focusing on the most recent references available up to 2024. The eligibility criteria for references include discussions about digitalization in human resource management practices.

LITERATURE FINDINGS

Industrial Revolution 4.0 and its impact on HRM

The era of globalization, characterized by rapid technological advancements and knowledge growth, has been further propelled by the Fourth Industrial Revolution, influencing how individuals perceive work and live their lives. This increasingly digitalized lifestyle focuses on technological performance, encompassing internet mobilization, machine technology, 3D printing, artificial intelligence (AI), and robotics. The transformation brought about by digital technologies is driving economic growth and development in countries as they enter an era of globalization and free markets. However, it remains challenging to predict whether this technological transformation will foster economic growth and industrialization in different countries, as not all nations share the same economic development climate or readiness for technology-based advancement (Hermawanto, 2020; Mohajan, 2021).

In the Fourth Industrial Revolution, organizations must develop digitalization capabilities, which require solutions provided by digital technology companies. According to Fauzan et al (2023), the digital technology revolution in this era will lead to the digitalization of human resource management techniques, including:

1. Digitalization of Human Resource Management to Acquire Competent Employees**: In this modern era, organizations utilize the latest techniques stemming from the digital technology revolution for job analysis, employee planning, recruitment, selection, orientation, training, and development.
2. Digitalization of Human Resource Management Techniques to Cultivate a Strong Work Ethic: Organizations implement modern techniques based on the digital technology revolution to provide competitive salaries, financial incentives, benefits, and an improved quality of work life.
3. Human Resource Management Techniques for Evaluating Work Performance to Motivate Employees: These techniques involve assessing employees' capabilities and willingness to work while implementing strategies and policies necessary to enhance employee motivation.

Digital Transformation in HR Management

Digital transformation in HR involves utilizing digital technologies to change how companies manage their workforce. The benefits of digitization for the HR industry include in-depth analytics and improved performance levels, increased recruitment efficiency through the replacement of manual CVs with automated screening that can complete these tasks in seconds, greater transparency and access to previously restricted data sets, real-time employee monitoring, automation of transactional HR tasks, and enhanced HR analytics that improve the recruitment process (Asari et al., 2023; Samir, 2024).

According to Asari (2023), digital HR management should focus on developing human resources through experiential learning. The strategies for digital HR management can be categorized into two stages :

- a. **Initial Stage:** Assess the company's readiness for digital HR management implementation, prepare a framework, establish architecture, raise awareness among all stakeholders, provide tools and platforms, and designate a crisis center.
- b. **Advanced Stage:** Involves pre-implementation activities, conducting gap analysis, identifying mitigation plan solutions, refining the architecture, integration, implementation, change management, continuous review, fostering a growth mindset, and promoting experiential learning.

However, several challenges must be addressed in the HR field regarding the use of technology. These challenges include the difficulty of finding talented employees amid a surplus of available workers, the risk of employee personal data leaks, and the ongoing need for HR professionals to continuously improve their soft skills.

Innovation in Human Resource Management

Innovation refers to new ideas, practices, or objects that are intentionally adopted by an organization, group, or individual (Wirapraja & Aribowo, 2018). It can also be seen as a mechanism for a company to adapt to a dynamic environment, enabling the creation of innovative ideas that lead to the development of new, higher-quality products to meet customer needs (Wijaya et al., 2019). Additionally, the concept of innovation within a company encompasses research and development (R&D), production, and marketing activities aimed at promoting products resulting from innovation.

The realm of innovation in human resource development is expansive. There are three categories of innovation (Bailey et al., 2018). The first category involves human resource management for innovation, which encompasses all elements of continuously seeking out needed personnel, identifying suitable candidates, and finding appropriate positions. This challenging activity necessitates careful planning, education, and training, particularly in recruiting, educating, and training high-quality management and leadership personnel at both strategic and operational levels. The knowledge and skills of these individuals are essential for leading and managing large, complex organizations that span multiple departments. The second category highlights the importance of technological innovation for strategic human resource development and capability building. This requires adequate financial resources to support technological advancements; without this funding, innovation will be limited. The third category represents a combination of the first two fields, emphasizing the complementary relationship among them. Effective human resource management is not merely a responsibility to promote employee welfare; it is also a vital cornerstone for fostering and sustaining a culture of innovation (Hamadamin et al, 2019). Innovation in human resource development is crucial for navigating the ever-changing dynamics of the business world. It encompasses not only technology but also changes in strategies, processes, and approaches applied in the management and development of human resources (Mubarik et al., 2022; Susantinah et al., 2023). In an era where change is constant, understanding and implementing innovation in HR development is essential for achieving a competitive advantage and addressing evolving challenges.

One key aspect of innovation in HR development is intelligent and progressive recruitment (Nasution & Kartajaya, 2018). This includes not only advanced technology but also more creative and inclusive methods. For example, utilizing artificial intelligence in candidate selection, employing data analysis to align organizational needs with prospective employee profiles, and exploring new recruitment channels are innovations that can enhance the recruitment process. Employee development is another critical element of innovation. This includes adaptive and personalized training programs, online learning platforms that are accessible from anywhere, and dynamic career development strategies (Lestari, 2019). Research by Riyadi et al. (2019) identifies three main dimensions of developing HR performance management system innovations at National health insurance which is BPJS Health: integrating data from existing personnel systems, creating a system that can unify modules for performance, talent, and career management, and developing the overall system. The innovation of the performance management system at BPJS Health exemplifies the organization's recognition of employees as talents and as a vital competitive asset and key factor for future success.

HR Management Strategy in the digital era

Indonesia has entered the era of Industry 4.0, also known as the digitalization era, since 2011. A key challenge for human resources is the need to keep pace with technological advancements and respond swiftly to changes. Organizations must provide human resources capable of analyzing data and thinking critically. Today, everything is digital, making it a primary necessity for organizations and companies. The challenge of HR competency in navigating the digital era is a critical issue in today's workforce (Fajriyani et al., 2023).

The ongoing advancements in technology have significantly impacted current management practices, including human resource management (HRM). Over the past four decades, many organizations have begun to integrate information technology into their HRM practices (Widjaja & Wijayadne, 2022). Globalization is unavoidable, requiring individuals to be prepared for change and competition on an international scale. Those who cannot adapt will be left behind. Organizations face similar challenges; if they cannot effectively manage human resources with a global mindset, they will struggle (Rusman, 2022). Implementing HRM technology within an organization is not an easy task. Various obstacles can arise when organizations seek to adopt HRM, one of which is the availability of adequate technological resources. HRM aims to establish business processes related to employee recruitment, training, and performance management. The use of technology in HRM involves applying web-based techniques in HR systems and functions, which embrace new management philosophies and practices that adapt to a rapidly changing environment. This includes integrating renewable technology and information communication to perform HR functions, where HRM is linked to a series of policies and practices necessary for implementing various HRM activities required for organizations to thrive in a dynamic organizational and business landscape (Kabul, 2024).

The application of technology in Human Resources Management (HRM) has several significant positive impacts, including:

- a. **Increased Efficiency in Recruitment:** Technology automates resume screening and candidate assessments, enhancing the effectiveness and efficiency of the recruitment process. Digital HR not only assists employees in fulfilling their daily job responsibilities and handling administrative tasks such as screening during the hiring process or updating personal activity records, but it also fosters collaboration and communication among a diverse workforce to support self-development needs (Namadi, 2023).
- b. **Enhanced Training and Development:** Technology facilitates better training and development through online training programs, e-learning modules, and virtual classrooms, which are flexible and easily accessible for employees. Employee can easily learning new skill and improve their capacity (Munir et al, 2024)
- c. **Improved Employee Engagement:** Technology boosts employee engagement through self-service portals and communication platforms that foster collaboration and interaction, ultimately increasing employee productivity. Organization can provide compensation for employee in exchange for their designated work. Digital rewards are virtual or online incentives given to individuals to recognize their achievements or motivate them to take specific actions. These rewards often come in the form of digital items, such as badges, points, virtual currency, or access to exclusive content. The primary objective of organizational HRM is to retain the best employees while keeping them motivated and committed to the organization. In the current HR landscape, various organizations are striving to manage and maintain their reward and compensation systems through digital processes. As technology continues to evolve, implementing a technology-driven rewards and recognition program can significantly impact employee engagement (Bashir et al, 2024).
- d. **Access to Workforce Data and Analytics:** HR technology provides valuable insights through data analytics, enabling HR professionals to make informed decisions regarding talent management, performance evaluation, and strategic planning. Overall, the integration of technology in HRM enhances the efficiency and effectiveness of HR processes, benefiting both the organization and its employees (Laura et al., 2024).

Digital transformation positively influences human resources, resulting in tangible changes in selection, training and development, performance, and service quality. One of the most significant HR strategies for navigating the digital transformation era involves adapting the talent recruitment and selection process (Kabul, 2021). Digital transformation has altered how companies recruit and select candidates. The recruitment process can now be conducted online through job search platforms or professional social media. Digital tools such as data analytics and artificial intelligence can screen applicants and match them to desired criteria. Furthermore, job interviews can be conducted via video conferencing, allowing recruiters to interact with potential employees regardless of geographic limitations (Gilch & Sieweke, 2021). Performance management has also evolved, with digital tools enabling real-time feedback, goal tracking, and data-driven evaluations, fostering a culture of continuous improvement aligned with organizational goals. Digital engagement platforms enhance internal communication, employee satisfaction, and retention by improving interaction and feedback mechanisms.

The Future of HR Management in the Digital Era

Human Resource Management (HRM) has undergone significant development over the past few decades. In the context of globalization and digitalization, companies must continuously innovate to enhance efficiency and competitiveness. Future trends in HRM will focus not only on technology but also on more complex cultural and ethical shifts. This paper will explore future HRM trends, including remote work, employee welfare, technology use, and paradigm shifts within HRM (Allen, 2020). Remote working and work flexibility, which gained prominence during the COVID-19 pandemic, have accelerated changes in work practices. Many companies have embraced remote work, discovering that this flexibility leads to increased productivity and employee satisfaction. Remote work allows employees to work from various locations, improving their work-life balance and reducing stress associated with commuting. Employee well-being is essential for enhancing productivity and job satisfaction. Companies must ensure that employees have a healthy and supportive work environment. Additionally, technology has become increasingly important in HR management. Utilizing technology can improve data management, communication, and staff training.

The impact of digitalization on HRM practices has become increasingly significant in today's digital age. This strategy can enhance the efficiency, productivity, and competitiveness of companies. However, implementing a digital strategy can also face challenges and potential failures. While digitalization can lead to success if executed properly, it can also result in failures if not well understood. Strategies such as employing more advanced technology, digitizing health services, developing digital skills, and integrating technology can improve work efficiency and productivity. Nevertheless, challenges related to technology integration, resource limitations, and adaptation difficulties can hinder success. Therefore, companies must understand both the successes and failures of digitalization in HRM practices to enhance their efficiency and competitiveness in the digital era.

CONCLUSION

Human resource management (HRM) is a key aspect of achieving organizational goals, focusing on managing employee performance through activities such as recruitment, training, and compensation. In the digital era, the role of HRM is increasingly important because technological advances have brought significant changes to how companies manage their human resources. The Industrial Revolution 4.0 and digitalization have encouraged companies to implement the latest techniques and strategies in HRM, such as data analysis, process automation, and real-time employee monitoring. Innovations in HRM, such as implementing flexible work models and using predictive analytics, allow companies to be more adaptive to market changes and workforce needs. However, although technology offers many benefits, challenges such as difficulty finding suitable talent and data security risks must still be addressed.

A strategic approach to HRM in the digital era must focus on developing employees who can adapt to new technologies and proactive talent management. Future trends, such as using AI and predictive analytics, will continue to influence HRM. Therefore, companies must be ready to integrate these trends into their strategies. It is important to understand both the potential for success and failure in digital strategies to ensure increased efficiency and competitiveness in this digital era.

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