Digitalization of Human Resource Management: Business Governance Toward an Advanced Indonesia

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Abstract
The digitization of Human Resource Management (HRM) is an important catalyst in promoting sustainable business in the digital economy era. This qualitative article examines how the digital transformation of HRM (digital HRM) contributes to business sustainability through practices such as HR analytics, e-HR platforms, GHRM (green HRM), and algorithmic/AI-driven HRM. Using a qualitative approach based on meta-synthesis of literature and thematic analysis of recent international studies, the article presents a framework of the relationship between HRM digitalization, organizational capacity to manage human resources sustainably, and its implications for national development (Indonesia Maju). Findings indicate that HRM digitalization improves operational efficiency, supports the development of employees' digital competencies, and enables the monitoring of social performance through data mechanisms, but also poses ethical risks, algorithmic bias, and cultural adoption challenges. To realize this potential in Indonesia, integrative policies are needed in the form of strengthening the digital literacy of the workforce, ethical data governance, and the integration of sustainability principles in the design of digital HR policies. This article concludes the importance of policy recommendations and research agendas to guide HRM digitalization as a driver of sustainable business towards an advanced Indonesia.

Keywords : *HRM digitalization, Human Resources Management, Sustainable HRM*

1. INTRODUCTION

In the context of the Fourth Industrial Revolution and the transition toward Society 5.0, the integration of digital technology has become a key catalyst in redefining the functions and roles of human resource management. This approach not only emphasizes the use of technology but also the reconstruction of work values, collaboration, and innovation within modern organizations. Developments in digital technology have brought structural changes to nearly all aspects of organizational management, including the field of Human Resource Management (HRM). This transformation marks a paradigm shift from administratively oriented human resource processes toward data-driven, algorithm-based, and fully integrated digital systems (Strohmeier, 2020). These changes also require HRM practitioners to possess strong digital competencies to effectively manage big data and predictive analytics for strategic decision-making. In the context of the global business environment, the digitalization of HRM is understood not merely as the application of information technology for operational efficiency but also as an organizational strategy to enhance competitiveness, innovation, and sustainability (Strohmeier, 2020). This phenomenon is reinforced by a business environment characterized by volatility, uncertainty, complexity, and ambiguity (VUCA). Every company is required to rapidly adapt to market and technological changes through knowledge-based human resource management, supported by responsive and user-friendly digital systems (Dabić, Maley, Švarc, & Poček, 2023).

Digitalization of Human Resource Management (HRM) not only influences how organizations recruit, train, and retain employees, but also transforms the way organizations understand the strategic value of people within the digital ecosystem. Technology-based approaches enable the personalization of employee experiences through analytics platforms and artificial intelligence (AI) systems capable of identifying individual development needs. For example, the implementation of Human Capital Analytics provides opportunities for organizational leaders to optimize decision-making through more accurate and faster data-driven insights, thereby improving the quality of human resource policies. In addition, digitalization strengthens the concept of contextual HRM, in which HR functions are required to be more adaptive to dynamic business changes (Akbar, Abdurahman, Nursanto, & Hartati, 2025). Recent studies reveal that the implementation of digital HRM has a significant impact on recruitment efficiency, organizational learning, and performance

analytics driven by big data (Lou, Hong, & Li, 2024; Meijerink, Bondarouk, & Lepak, 2016). However, behind its transformational potential, HRM digitalization also presents complex new challenges. The use of algorithms and AI systems in workforce management raises various ethical concerns related to data privacy, accountability, and potential algorithmic discrimination (Meijerink et al., 2016). Digital literacy gaps among employees may hinder the effectiveness of technology adoption, particularly in developing countries where infrastructure disparities and unequal access to information remain prominent compared to more advanced economies (Poulose, Bhattacharjee, & Chakravorty, 2024). Rapid technological changes often create psychological dissonance between individual capabilities and the demands of digital systems. This leads to the phenomenon of technostress, where employees feel pressured by the complexity of digital tools and the continuous need to adapt. As a consequence, organizations must develop change-management strategies that emphasize not only technological adoption but also mental readiness and a supportive digital work culture. The implementation of continuous training, digital literacy programs, and empathy-based coaching becomes crucial to ensure that the digital transition occurs inclusively. Moreover, organizations need to establish a digital ethics framework that affirms moral responsibility in the use of data and AI within the HR domain. In an era of increasingly intensive digital transformation, the relationship between technology and employee well-being has become a strategic issue in modern human resource management. Digitalization that is not supported by adaptive and empathetic policies may create psychosocial imbalances between productivity demands and employees' need for work-life balance. Therefore, an ethical approach to digital transformation serves as a fundamental principle to ensure that technological advancement remains aligned with human values.

The emergence of digital work pressure (digital stress) and the phenomenon of the "always-on culture" indicate that digitalization does not automatically improve employee well-being (Thite, 2022). In this context, organizations must balance digital innovation with human-centered dimensions. Rapid technological changes often surpass the social and psychological readiness of the workforce. Therefore, HRM digitalization strategies need to incorporate elements of employee well-being, digital inclusivity, and ethical governance as integral components of the transformation process (Guest, 2017). Developing a human-centered digital culture becomes essential for maintaining sustainable productivity and work morale (Hilarianty & Maisela, 2024). The integration of human values in digitalization strategies is a critical determining factor, as people remain at the core of organizational value creation. The development of a Human-Centered Digital Transformation (HCDT) system highlights the importance of designing digital systems that consider user experience and their social impact. Digital systems that are designed without considering human aspects risk creating alienation, reducing engagement, and weakening employee loyalty. Thus, the success of HRM digitalization is measured not only by efficiency and speed but also by the extent to which technology supports human well-being and empowerment in the workplace.

Digitalization has also given rise to new phenomena such as digital fatigue and the always-on culture, which, if not properly managed, can reduce employee motivation and productivity (Thite, 2022). In the long run, the success of Human Resource Management (HRM) digitalization depends heavily on adaptive leadership and organizational policies that are inclusive of human needs amid rapid technological disruptions. From a sustainability perspective, HRM digitalization has become increasingly relevant as it can be integrated with Green Human Resource Management (GHRM) practices and sustainable HRM (Awwad Al-Shammari, Alshammrei, Nawaz, & Tayyab, 2022; Kuzior, Kettler, & Rąb, 2021). The integration of digitalization and GHRM offers a new paradigm of environmentally conscious business management. Through remote working systems, organizations can reduce energy consumption, decrease paper usage, and minimize business travel that contributes to carbon emissions. Digital platforms can also be utilized to monitor human resource sustainability indicators such as work-life balance, employee participation in sustainability programs, and overall job satisfaction (Susilo, 2022). Thus, digitalization serves as an effective bridge between technological efficiency and ecological responsibility within business operations. In the ESG (Environmental, Social, and Governance) era, this integration has great potential to strengthen an organization's reputation as a business entity committed to long-term value and collective well-being (Zenjari, Allouani, Zaki, & Sidqui, 2024). Digitalization enables organizations to monitor energy

consumption across business processes, reduce carbon emissions through remote work systems, and encourage environmentally friendly behavior through sustainability-based e-learning platforms. Therefore, HRM digitalization has the potential to drive triple-bottom-line sustainability: economic, social, and environmental performance. In the Indonesian context, opportunities and challenges coexist. As a nation with the development vision of Indonesia Maju 2045, the government continues to promote digital transformation across sectors, including labor and human resource development. Through initiatives such as the Digital Talent Scholarship and Smart ASN, efforts to strengthen the digital competencies of civil servants and the national workforce are continuously reinforced. However, academic literature shows that the adoption of HRM digitalization in Indonesia remains partial and has not yet been fully integrated into a comprehensive organizational sustainability framework (Farida, 2025).

One of the real challenges in supporting the smooth implementation of HRM digitalization is the significant gap that still exists between the public and private sectors in terms of digital readiness (Sihombing, Simarmata, Banjarnahor, Farisyi, & Suvittawat, 2025). Many organizations in regional areas face obstacles related to digital infrastructure, the lack of continuous training, and cultural resistance to new technologies. In this context, collaboration between the government, universities, and industry becomes essential in accelerating the digital transformation of HRM. Higher education institutions have a strategic role in preparing a workforce with adequate digital literacy and an ethical orientation toward technology use. Meanwhile, the industrial sector can contribute through technological investment and the provision of digital learning platforms for national talent development. The government also needs to strengthen policy ecosystems that promote inclusive digital integration, particularly for small and medium-sized enterprises that are often left behind in digital transformation processes. Cross-sector synergy must be directed not only toward enhancing technical competence but also toward developing organizational cultures that are adaptive, collaborative, and oriented toward sustainable innovation. At present, many organizations remain focused primarily on technological aspects, rather than on developing HRM strategies that integrate digitalization with sustainability values and employee well-being. Thus, this article aims to provide a conceptual contribution to understanding how HRM digitalization can serve as a catalyst for sustainable business management toward an Advanced Indonesia (Indonesia Maju). Based on the above discussion, this article proposes a conceptual framework that positions HRM digitalization as a strategic foundation for sustainable business management, emphasizing the importance of synergy between technology, people, and ethical public policy. Zenjari et al. (2024) further argue that organizations adopting a digitalization approach that emphasizes human resource assets tend to achieve higher levels of innovation and sustainability.

2. RESEARCH METHOD

This study employs a descriptive qualitative approach using a meta-synthesis method to analyze relevant academic literature on the digitalization of Human Resource Management (HRM) and sustainable business management. The qualitative approach was chosen because it allows the researcher to understand the phenomenon of HRM digital transformation in depth through the interpretation of meaning, context, and the social dynamics surrounding it (Creswell & Poth, 2016). The focus of this study is not merely to describe the use of digital technologies but also to explore the ethical, strategic, and sustainability implications for organizations in Indonesia as they move toward the Indonesia Maju 2045 vision. The qualitative meta-synthesis method is used to integrate empirical findings from previous studies, thereby forming a comprehensive conceptual understanding of the role of HRM digitalization in the context of sustainability. This approach follows the guidelines of Noblit and Hare (1988), which emphasize the process of translation of studies into one another—identifying patterns of similarity and difference across studies to generate a higher-level interpretation. The analysis process involves several stages: selecting relevant literature, identifying key findings, and categorizing the results based on thematic similarity. Each finding is then synthesized to obtain a more holistic overview of the main issues in the digitalization of human resource management. The validity of the meta-synthesis results is maintained through

cross-source comparison and a review of consistency across findings, ensuring that the interpretations produced remain credible, in-depth, and scientifically accountable.

Table 1. Related Literature

Reference	Focus	Relevance
Adila and Putri (2024)	Digital training becomes an essential element in the performance monitoring process, enabling the realization of a more efficient and professionally standardized Indonesian bureaucracy	Digitalization contributes to improving bureaucratic performance in terms of response speed, which can have a broad impact on society.
Rosari, Cakranegara, Pratiwi, Kamal, and Sari (2022)	Discusses the importance of digital transformation for improving corporate governance that is more transparent and sustainable.	Company performance increasingly depends on governance practices that optimize digitalization.
Alerasoul, Afeltra, Hakala, Minelli, and Strozzi (2022)	Companies need to design systems and cultures that support continuous learning to remain competitive in dynamic environments.	HRM digitalization requires continuous learning.
Herlissha, Fitari, Oktariani, and Noviyanti (2024)	This study emphasizes the importance of optimizing HRM digitalization in various workforce planning functions.	Technology plays a crucial role in workforce planning by identifying training needs, expanding recruitment processes, and optimizing employee performance through advanced automation.
Banerjee and Sharma (2025)	The relationship between digital transformation and talent management in the context of the current Industrial Revolution 4.0 highlights how technological innovation changes the way organizations attract, develop, and retain high-quality human resources.	Talent management is a strategically important focus for HR managers and continues to develop over time, supporting long-term organizational sustainability.

3. RESULTS AND DISCUSSION

3.1 Digitalization of HRM as a Strategic Capability of Modern Organizations

In the context of modern organizational transformation, the digitalization of Human Resource Management (HRM) is viewed as a strategic pillar that links technological capabilities with human-centered values in workforce management. This approach positions technology not merely as a supporting tool but as a strategic instrument that optimizes the quality of managerial decision-making through data-driven insights and predictive analytics. The digitalization of HRM functions not only as a means of administrative automation but also as a central strategy for achieving sustainability and organizational excellence amid rapid changes in the business environment.

Within the framework of the Resource-Based View (RBV), digital HRM is understood as a distinctive strategic capability that enhances organizational competitiveness by improving work efficiency, fostering innovation, and strengthening workforce adaptability to changing dynamics (Poulose et al., 2024). Through deeper identification, HRM digitalization can serve as a primary lever in building organizational agility—the ability to respond and adjust quickly to external disruptions. By integrating digital technologies such as machine learning, the Internet of Things (IoT), and cloud-based talent management systems, organizations can gain predictive insights into employee behavior and needs, enabling more proactive and data-driven HR strategies.

Digital training programs and the use of applications have become crucial in performance monitoring to support a more efficient and professional Indonesian bureaucracy (Adila & Putri,

2024). Moreover, digitalization expands opportunities for cross-functional and cross-location collaboration through integrated digital platforms, enabling hybrid work to operate effectively without compromising productivity or engagement. This creates a more flexible, transparent, and inclusive work ecosystem that strengthens social cohesion within the organization. On the other hand, HRM digitalization demands adaptive and visionary leadership in managing organizational culture change, as digital transformation affects not only technical aspects but also the ways in which employees think, interact, and innovate across all levels of the organization. Therefore, developing digital competencies and technological literacy among employees becomes a key element in ensuring that digitalization is not merely a technological project but a long-term strategic initiative that strengthens sustainable organizational competitiveness.

The implementation of systems such as workforce data analytics, artificial intelligence, and cloud-based platforms enables organizations to predict workforce needs, assess productivity levels, and design employee retention and development strategies based on accurate data (Meijerink et al., 2016). The utilization of digital technologies in HRM practices also strengthens evidence-based decision-making, fostering transparency, accountability, and fairness within managerial processes. This technological integration expands the strategic role of the HRM function from merely administrative to a transformational partner capable of linking business objectives with proactive talent management.

Through predictive analytics and process automation, organizations are able to identify potential HR risks while designing more targeted development interventions. The shift from a cost-efficiency orientation toward strategic value creation can now be achieved more effectively through the application of integrated digital HRM systems. In this process, organizations can enhance employee empowerment, improve job satisfaction, and cultivate adaptive capabilities in response to social and technological changes. Digital transformation not only accelerates operational efficiency but also facilitates the development of governance systems that are more responsive, transparent, and accountable (Rosari et al., 2022). Therefore, HRM digitalization becomes a critical foundation for organizations seeking to build sustainable and highly competitive business models (Lou et al., 2024).

3.2 Green HRM Concepts and Ethical Challenges in Technological Transformation

In the context of the Industrial Revolution 4.0 and the sustainable development agenda, integrating environmentally friendly principles into digital Human Resource Management (HRM) systems has become a strategic necessity for modern organizations. This approach emphasizes not only operational efficiency but also ethical awareness in the use of technology that seeks to balance productivity with environmental preservation. Sustainability-oriented digitalization encourages a paradigm shift from mere administrative automation toward strengthening human resource governance based on green values and social responsibility.

Furthermore, the development of sustainable digital HRM creates opportunities for organizations to internalize circular economy values through the reduction of digital waste and the optimization of energy use within information technology infrastructure. Thus, HRM digitalization is no longer viewed solely as a technical innovation but as a strategic instrument for building organizations that are adaptive, competitive, and environmentally ethical. The development of environmentally friendly digital HRM concepts has become a new direction in contemporary scholarship. This concept asserts that digital technologies can reinforce environmentally conscious and socially oriented HRM practices (Awwad Al-Shammari et al., 2022). The use of digital platforms can help organizations reduce paper consumption, limit business travel, and lower carbon emissions through the implementation of remote collaborative work arrangements and online training supported by sustainable software tools (Kuzior et al., 2021). At the organizational level, digital HRM also plays a strategic role in supporting real-time data management through digital dashboards for monitoring green performance, which regularly assess environmental, social, and employee well-being indicators (Setyadi, Pawirosumarto, Damaris, & Syarif, 2025).

The socio-cultural dimension of HRM digitalization requires organizations to understand the diversity of values, norms, and work practices embedded in each local context. In the era of digital globalization, the implementation of technology-based HRM systems cannot be uniform but must be

aligned with cultural sensitivities and the social interaction patterns that evolve within society. Digitalization that fails to consider social context may create a gap between technology and people, particularly in developing countries that still face challenges related to digital literacy and unequal access to technology. Therefore, a digital inclusion–based approach becomes essential to ensure that all employees—regardless of age, background, or technological capacity—have equal opportunities to participate in the organization's digital transformation. Moreover, the ethical dimension of sustainability emphasizes the moral responsibility of organizations to use technology fairly and transparently. Sustainability ethics in digital HRM includes the protection of personal data, the fair management of artificial intelligence, and respect for employees' digital rights. Technology should reinforce human values, not replace them. Therefore, modern HRM policies must integrate the principles of ethics, empathy, and social justice into the design of digital systems to create a more humane and sustainable work environment.

Thus, HRM digitalization is not merely an efficiency instrument but also a strategic vehicle for transforming organizations to become resilient, ethical, and sustainable. Furthermore, ethical issues and employee well-being have become major concerns in the implementation of HRM digitalization. Although the algorithms involved in digital HRM can enhance efficiency and decision-making accuracy, they also carry risks such as algorithmic bias and violations of employee data privacy (Meijerink et al., 2016). Therefore, it is essential for organizations to adopt principles of ethical digital governance in managing HRM systems, including transparency in data usage, clear privacy policies, and mechanisms to protect against digital discrimination (Strohmeier, 2020).

Manoharan (2024) introduce the concept of human–tech symbiosis, a synergistic relationship between humans and technology in the workplace. In the HRM context, this symbiosis requires striking a balance between productivity and employee well-being. Employees' digital well-being is strongly influenced by their level of digital resilience, which can be strengthened through training and psychological support in the workplace. Organizations that overemphasize digital efficiency without considering employees' cognitive load are at risk of digital fatigue and declining employee engagement. Therefore, the implementation of employee digital well-being programs becomes a strategic step to ensure that digital transformation progresses inclusively and sustainably.

3.3 Socio-Cultural Dimensions and Sustainability Ethics in HRM Digitalization

According to Quttainah and Ayadi (2024), sustainability-oriented digitalization contributes to reducing carbon footprints, improving energy efficiency, and enhancing corporate social reputation. Organizations that implement green digital practices also demonstrate higher employee retention, as sustainability values strengthen employee identification with the organization. The integration of environmentally friendly technologies into business processes encourages the creation of a green work culture that is more adaptive and collaborative across all organizational levels.

Within the socio-cultural dimension, the digitalization of Human Resource Management requires not only technological adoption but also a reorientation of human-centered values within the work ecosystem. Every organization operates within a specific cultural context that shapes employees' perceptions, ethics, and behaviors toward digital technologies. The effectiveness of digitalization depends largely on an organization's ability to harmonize local cultural values with the demands of technological globalization, ensuring that digital transformation does not create cultural alienation in the workplace.

Digital transformation in the Industry 4.0 era influences talent management, particularly in terms of developing digital competencies and intrinsic motivation as key drivers of organizational growth (Banerjee & Sharma, 2025). A cross-cultural perspective in digital HRM becomes essential to ensure that digitalization processes continue to respect social diversity, language differences, and the values embedded within organizational communities. For instance, in societies that uphold collectivist cultural norms such as Indonesia, the implementation of digital work systems must preserve communal solidarity, social responsibility, and national unity. Digital platforms that promote collaboration, participation, and open communication serve as tools to strengthen gotong royong values in the modern context. Furthermore, the ethical dimension of sustainability demands that HRM digitalization be not only technologically efficient but also socially just.

The application of artificial intelligence (AI) and data analytics in decision-making related to human resource management must be grounded in the principles of transparency and non-discrimination to prevent digital inequality among groups of workers. Inclusive digitalization also requires attention to disparities in access and digital literacy among employees. Upskilling and reskilling programs should be designed with an empathy-based approach to ensure that every individual has equal opportunities to adapt to technological changes. Furthermore, social values such as justice, trust, and collective responsibility must be internalized into digital HR policies so that technology serves as an enabler of human empowerment rather than a source of exclusion. In the sustainability context, digital well-being practices become an important dimension, where organizations need to regulate digital interaction boundaries to avoid digital fatigue and to maintain work–life balance. Thus, ethical and culturally grounded HRM digitalization not only strengthens organizational performance but also builds a healthy, humane, and sustainable work ecosystem in the digital transformation era.

In an environment increasingly disrupted by digitalization, issues of ethics and employee well-being become central concerns in the implementation of digital HRM. Algorithm-driven organizational management can create systematic bias if not regulated by ethical governance. Therefore, it is crucial for organizations to implement principles of ethical digital governance that ensure algorithmic transparency, accountability in decision-making, and the protection of privacy (Manoharan, 2024). In Indonesia's socio-cultural context, HRM digitalization must consider the values of gotong royong and social balance. Digitization grounded in local wisdom tends to foster social innovation and long-term sustainability. Digital transformation is not solely a technological matter but also a cultural journey that requires empathetic leadership and active employee participation.

3.4 Digitalizing Human Resource Management for National Development Toward Indonesia Maju 2045

The acceleration of digital transformation in the field of Human Resource Management (HRM) serves as an important catalyst in realizing institutional governance that is adaptive to the demands of technological disruption. In the context of national development, HRM digitalization functions as a strategic instrument for simultaneously integrating technology, innovation, and human capacity development. This paradigm shift requires organizations not only to adopt new technologies but also to build a digital work culture that is collaborative, ethical, and oriented toward continuous learning. Moreover, the implementation of digital HRM demands harmonization between macro-level government policies and micro-level organizational strategies to ensure that the transformation undertaken is systemic and sustainable. Thus, HRM digitalization should be understood not merely as a technological innovation but as an institutional process that strengthens national competitiveness and drives knowledge-based economic growth. Technology plays a strategic role in workforce planning by facilitating the identification of training needs, expanding recruitment outreach, and enhancing employee performance through more advanced automation (Herlissha et al., 2024).

Digitalizing Human Resource Management (HRM) holds significant strategic relevance for achieving the Indonesia Maju 2045 Vision, particularly in the pillars of developing superior human capital and transforming the innovation-driven economy. Based on a synthesis of various literature sources, three key forms of contribution from HRM digitalization in supporting this national vision can be identified. First, digitalization strengthens the capabilities of the national workforce. Through the use of digital learning platforms and AI-driven competency mapping, organizations can conduct continuous, adaptive, and measurable competency development processes. This approach ultimately enhances the competitiveness of human resources and reinforces national human capital advantage (Farida, 2025). Second, HRM digitalization encourages the creation of a more adaptive and inclusive work system. Digital technologies open opportunities for flexible work models that expand participation for underrepresented groups such as women, persons with disabilities, and workers from non-urban regions. Thus, digitalization not only modernizes work practices but also strengthens the values of equity and inclusion in the workplace. Third, the implementation of data-driven management enables the formulation of human resource policies that are more accurate, responsive,

and contextual to global labor market dynamics. Through comprehensive data analytics, policymakers can design workforce development strategies that align with industrial needs and national economic transformation objectives.

In the Indonesian context, the implementation of digital HRM must be synergized with local values such as gotong royong, social justice, and collective well-being. This emphasizes that digital transformation is not solely oriented toward economic efficiency but must also be rooted in humanistic and socially sustainable principles. Therefore, Digital HRM for Sustainable Business should be viewed not only as a modern corporate strategy but also as a national development instrument toward an Indonesia that is just, prosperous, and globally competitive. Synergy between public policy and corporate strategy becomes crucial. Human resource development programs such as Smart ASN and Digital Talent Scholarship need to be strengthened with ethical frameworks and continuous digital literacy initiatives. Government, academia, and the private sector must collaborate to build an HRM digital ecosystem that is inclusive, equitable, and globally competitive.

Figure 1. Conceptual Synthesis

Based on the literature analysis, it can be concluded that HRM digitalization functions as a key enabling mechanism in sustainable business management. The conceptual relationships that can be formulated are as follows:

1. HRM Digitalization → HRM Process Efficiency → Organizational Performance (Meijerink et al., 2016; Strohmeier, 2020)
2. HRM Digitalization + Green HRM → Enhanced Organizational Sustainability (Awwad Al-Shammari et al., 2022; Lawter & Garnjost, 2025)
3. Digital Ethics → Employee Well-being and Trust (Manoharan, 2024; Thite, 2022)

This conceptual framework reinforces that the success of HRM digitalization in supporting Indonesia's sustainable development is determined by the synergy between technology, people, and ethical as well as inclusive public policies. Digital Human Resource Management has evolved from a purely administrative tool into a strategic instrument that shapes organizational competitiveness, sustainability, and social justice. HRM digitalization not only enhances efficiency and innovation but also integrates sustainability values through the concepts of digital green HRM, ethical governance, and technology-based employee well-being. In the Indonesian context, HRM digitalization rooted in gotong royong values and social balance demonstrates that digital transformation is a cultural journey that requires empathetic leadership, ethical governance, and cross-sector collaboration. The synergy between corporate strategy, public policy, and local wisdom becomes essential in building a sustainable and competitive digital HRM ecosystem aligned with the national development vision toward Indonesia Maju 2045.

5. CONCLUSION

The digitalization of human resource management is a crucial strategic foundation for realizing sustainable business management and accelerating the transformation toward the Indonesia Maju

2045 vision. Digital HRM must be strengthened through the support of formal governmental institutions as a strategic system that enhances organizational capabilities, improves sustainable performance, and drives innovation, creativity, and workforce well-being across various national economic sectors. The contribution of digital HRM to sustainability encompasses three interrelated dimensions. First, the economic dimension, in which the adoption of digital technologies increases productivity, effectiveness, and accuracy in human resource management processes. Second, the social dimension, which includes strengthening digital competencies, promoting inclusivity, and improving workers' psychological and professional well-being. Third, the environmental dimension, achieved through the integration of digital HRM with green HRM practices that reduce carbon footprints, improve energy efficiency, and encourage environmentally responsible behavior in the workplace. The limitation of this study lies in the analytical scope, which remains focused on specific organizational contexts, making the generalization of findings relatively limited. Future research is recommended to conduct cross-sector or cross-country comparative studies to enrich the understanding of HRM digitalization dynamics within a global context. Nevertheless, the effectiveness of HRM digitalization is strongly influenced by organizational readiness, human resource capacity, and adaptive national policy support. Key challenges include digital literacy gaps, technological infrastructure disparities, and issues related to ethics, security, and employee data privacy. Therefore, the successful implementation of HRM digitalization requires ethical digital governance, sustained investment in digital human capital development, and the strengthening of humanistic, collaborative, and equitable values in every stage of organizational technological transformation.

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