Building an Adaptive and Sustainable Human Resource Information System in the Digital Age

Siti Aulia
Universitas Sulawesi Barat

Article Info

ABSTRACT

The digital age has redefined the role of Human Resource Information Systems (HRIS) from a traditional administrative tool to a strategic enabler of organizational success. This study presents a systematic literature review of 35 scholarly documents sourced from Google Scholar to examine how HRIS can be designed to be both adaptive and sustainable in the context of digital transformation. The findings highlight three core themes: adaptability, sustainability, and digital integration. Adaptability reflects HRIS responsiveness to dynamic business environments, workforce diversity, and crises such as the COVID-19 pandemic. Sustainability emphasizes the alignment of HRIS with environmental, social, and governance (ESG) principles, ensuring ethical, inclusive, and long-term value creation. Digital integration illustrates the growing adoption of advanced technologies such as artificial intelligence, big data, cloud computing, and blockchain to enhance HR efficiency and decision-making. The study concludes that the future of HRIS lies in balancing technological innovation with human-centered values to achieve agility, inclusivity, and resilience. It contributes to the discourse on digital HR transformation by mapping key themes, identifying research gaps, and offering practical and policy recommendations for organizations seeking to build adaptive and sustainable HRIS frameworks.

Corresponding Author:

Name: Siti Aulia
Institution: Universitas Sulawesi Barat
e-mail: Sitiauliah2597@gmail.com

1. INTRODUCTION

The digital age has transformed how organizations operate, making information systems a critical foundation for sustaining competitiveness and agility. Among these systems, the Human Resource Information System (HRIS) has evolved beyond its traditional administrative role into a strategic tool that enables organizations to manage talent, optimize processes, and support decision-making. As businesses face rapid technological changes, globalization, workforce diversity, and increasing environmental and social expectations, the demand for an adaptive and sustainable HRIS has become more urgent. HRIS now plays a crucial role in managing talent, optimizing processes, and supporting decision-making, which is essential in the face of rapid technological changes, globalization, and evolving workforce dynamics. This transformation is driven by the integration of advanced technologies such as automation,

AI, and digital platforms, which have redefined HR management practices and increased the strategic involvement of HR in business operations [1], [2]. HRIS has evolved to support strategic decision-making by providing comprehensive data analytics capabilities, enabling organizations to make informed decisions about talent management and workforce planning [1]. The system facilitates the alignment of HR processes with organizational strategies, enhancing the overall effectiveness and competitiveness of businesses [3]. The integration of AI and automation within HRIS has streamlined HR processes, reduced administrative burdens and allowing HR professionals to focus on strategic initiatives [2]. Furthermore, digital platforms within HRIS support continuous employee development through e-learning and digital training, which are crucial for adapting to technological advancements [4]. Nonetheless, organizations face challenges such as resistance to change and data security concerns when implementing advanced HRIS solutions. However, these systems also offer significant opportunities for improving efficiency and innovation [4]. A sustainable approach to HRM, which includes building an adaptive culture and investing in digital training, is therefore essential for leveraging HRIS effectively in the digital era [5].

An adaptive Human Resource Information System (HRIS) refers to the capability of the system to evolve in line with technological innovations, organizational restructuring, and the changing expectations of employees, ensuring that HR functions remain relevant, responsive, and aligned with dynamic business strategies. This adaptability is strengthened through technological integration, such as AI and advanced analytics, which enhance decision-making, efficiency, and employee experience by enabling personalized HRM practices that improve organizational performance [6]. Adaptive management, which includes change-responsive strategies in recruitment, employee development, and performance management, is essential for sustaining success in a globalized business environment [7], while principles like Agile and Lean contribute to greater flexibility, resource efficiency, and innovation, fostering a culture that thrives under high uncertainty [8]. On the other hand, sustainability in HRIS emphasizes not only operational efficiency but also long-term value creation, ethical management of human resources, and integration with environmental, social, and governance (ESG) principles, ensuring responsible business practices and resilience in the face of global challenges. This includes green HRM practices that incorporate environmentally sound leadership and values, encouraging pro-environmental behavior and cultivating a sustainable organizational culture [6], as well as adaptive sustainability approaches that combine systems thinking with practical governance to establish responsive and responsible business management capable of driving new levels of prosperity [9]. Together, adaptability and sustainability position HRIS as a cornerstone for organizations striving to thrive in a competitive and uncertain digital economy.

In recent years, digital technologies such as artificial intelligence (AI), cloud computing, machine learning, and big data analytics have significantly reshaped HR practices by enabling more accurate workforce planning, data-driven performance evaluations, and predictive insights into employee behavior, while also streamlining processes and improving organizational adaptability [10], [11], [12]. AI and machine learning have revolutionized talent acquisition, employee engagement, and performance management by providing automated and data-driven insights [10], [11], while cloud computing and big data enhance collaboration and strategic workforce planning through more effective data management [12]. Additionally, augmented and virtual reality are transforming employee training and development by offering immersive and interactive learning experiences [13]. Despite these advancements, challenges remain, particularly regarding data privacy and system security in handling sensitive employee information [11], [14], as well as risks of algorithmic bias that necessitate transparency and accountability in

AI-driven decision-making [11]. Furthermore, maintaining a human-centered workplace culture that values inclusivity and employee well-being remains essential even as organizations adopt advanced technologies [13]. To address these challenges, organizations must design HRIS frameworks that balance technological capabilities with ethical considerations by implementing clear ethical guidelines, ensuring fairness and transparency in system use [11], and fostering inclusivity through HRIS designs that prioritize human interaction and long-term resilience [13].

Given these dynamics, a comprehensive understanding of adaptive and sustainable HRIS is essential, and this paper presents a literature review of scholarly documents sourced from Google Scholar that focus on the intersections of adaptability, sustainability, and digital integration in HRIS. By synthesizing existing research, the study aims to identify emerging themes and trends in HRIS development, evaluate how adaptability and sustainability are addressed in contemporary HRIS models, and provide insights for practitioners, policymakers, and researchers on designing HRIS frameworks suitable for the digital age. Ultimately, this study contributes to the discourse on digital transformation in human resource management by emphasizing the critical role of adaptive and sustainable HRIS in enabling organizational success, with findings that highlight the future of HRIS not only in leveraging cutting-edge technologies but also in ensuring ethical, sustainable, and inclusive practices that support both organizational goals and societal well-being.

2. LITERATURE REVIEW

2.1 Adaptability of HRIS in the Digital Age

Adaptability in Human Resource Information Systems (HRIS) is crucial for modern organizations to manage workforce dynamics, regulatory changes, and technological advancements, as it enables the integration of tools such as AI-driven recruitment and virtual training platforms to enhance responsiveness to global challenges and diverse contexts. Technological integration, including AI and big data, improves organizational performance and supports remote or hybrid work models that foster work-life balance and engagement [15]. Adaptability is also essential in addressing globalization by ensuring HR strategies are responsive to recruitment, employee development, and diversity management, while remaining sensitive to cultural and legal contexts for global talent management [7]. Flexibility in HR management is increasingly important as rigid approaches prove ineffective amid rapid enterprise development, pushing organizations to adopt flexible strategies to stay competitive [16]. Furthermore, adaptive HRIS enhances crisis management and decision-making by enabling swift responses during disruptions such as the COVID-19 pandemic, ensuring continuous alignment with dynamic strategies and environmental uncertainties [17].

2.2 Sustainability in HRIS

The integration of sustainability into Human Resource Information Systems (HRIS) is increasingly recognized as a vital component of corporate social responsibility and adherence to Environmental, Social, and Governance (ESG) principles, as it not only enhances operational efficiency but also aligns HR functions with broader goals of environmental stewardship, social equity, and governance compliance. Environmentally, HRIS can track and promote green HRM practices such as environmental training programs and resource efficiency initiatives, while embedding eco-friendly recruitment and performance evaluation processes to cultivate a workforce that prioritizes sustainability [18], [19]. From a social perspective, sustainable HRIS ensures fairness, inclusivity, and transparency in recruitment, promotion, and performance evaluation, while aligning HR practices with the United Nations' Sustainable Development Goals (SDGs) to strengthen resilience and foster equity in the global market [18], [20]. In terms of governance, HRIS plays a crucial role in ensuring compliance with labor laws, data

protection regulations, and ethical handling of employee information, with its integration into governance principles enhancing ethical decision-making and contributing to long-term sustainability [21].

2.3 Digital Integration in HRIS

The digital transformation of Human Resource Information Systems (HRIS) is reshaping HR management through the integration of advanced technologies such as AI, cloud computing, big data analytics, and blockchain, which collectively enhance efficiency, scalability, and decision-making. AI streamlines recruitment, employee induction, performance evaluation, and talent management by providing data-driven insights for strategic workforce planning, while also facilitating predictive analytics on employee turnover and skill matching to improve decision-making [11], [22]. Big data analytics further empowers HR managers with actionable insights into workforce behavior, enabling evidence-based strategies for employee engagement, retention, and operational efficiency while supporting ethical HR practices [23]. Cloud-based HRIS solutions improve accessibility by allowing employees and managers to access information anytime and anywhere, thereby enhancing transparency, collaboration, remote work arrangements, and personalized employee experiences that foster job satisfaction and retention [22], [24], [25]. However, these advancements also raise challenges related to data privacy, cybersecurity, and the ethical implications of algorithmic decision-making, particularly concerning bias in AI-driven processes, making it essential for organizations to maintain a human-centered approach in HR interactions [11], [22], [24].

2.4 Gaps in the Literature

While existing research provides valuable insights into HRIS adaptability, sustainability, and digital integration, several

gaps remain. First, empirical studies on the long-term impact of sustainable HRIS practices are still limited. Second, there is a need for cross-cultural investigations on how adaptability is implemented in diverse organizational contexts. Third, the ethical implications of AI and big data in HRIS require deeper exploration, particularly concerning employee privacy and fairness.

3. METHODS

This study employs a systematic literature review (SLR) approach to explore the development of adaptive and sustainable Human Resource Information Systems (HRIS) in the digital age, chosen for its ability to provide a structured and comprehensive examination of existing academic contributions, enabling the identification of themes, patterns, and research gaps while synthesizing findings across multiple studies for a holistic understanding of adaptability, sustainability, and digital integration in HRIS research. The data were obtained exclusively from Google Scholar, which offers broad access to peer-reviewed journal articles, conference proceedings, and book chapters in human resource management, information systems, and organizational studies, making it suitable for capturing the multidimensional nature of HRIS. A systematic search was conducted using keywords such as "Human Resource Information System" OR "HRIS," "Adaptability" OR "Agility," "Sustainability" OR "Green HRM" OR "ESG," and "Digital Transformation" OR "Digital Integration" OR "Technology Adoption," with Boolean operators (AND, OR) applied to refine results and capture literature addressing the intersection of HRIS with adaptability, sustainability, and digital transformation. To ensure relevance and quality, specific inclusion and exclusion criteria were applied to the reviewed literature.

Category	Criteria
Inclusion Criteria	• Publications in English • Peer-reviewed journal articles, conference proceedings, and book chapters • Studies published between 2015–2024 to capture the most recent developments in the digital age • Articles directly

	addressing HRIS in relation to adaptability, sustainability, or digital transformation
Exclusion Criteria	• Non-English publications • Opinion papers, blogs, or non-scholarly sources • Studies focusing on general HRM practices without emphasis on HRIS • Duplicate publications

The search initially generated 102 documents, of which 57 were retained after screening titles and abstracts for relevance, followed by full-text reviews that resulted in 35 documents selected for in-depth analysis, representing diverse perspectives on HRIS including case studies, conceptual frameworks, empirical research, and systematic reviews. These documents were examined using a thematic content analysis approach, beginning with data extraction where key information such as publication year, authors, research focus, and findings were systematically recorded, followed by a coding process in which concepts related to adaptability, sustainability, and digital integration were identified and categorized. The coded data were then synthesized into broader themes to capture commonalities and differences across studies, culminating in the development of a conceptual framework that highlights the interrelationship between adaptability, sustainability, and digital integration in HRIS.

4. RESULTS AND DISCUSSION

4.1 Adaptability of HRIS

The findings show that adaptability is a fundamental requirement for HRIS in rapidly changing environments, as studies emphasize its ability to adjust to organizational restructuring, new labor regulations, and workforce diversity. Case studies during the COVID-19 pandemic, for instance, highlighted how HRIS facilitated the transition to remote work by enabling virtual recruitment, online training, and digital performance management. Virtual recruitment processes allowed organizations to access a global talent pool and ensure continuity in hiring despite geographical constraints [26], while online training modules provided employees with the skills and knowledge needed to adapt to remote work environments [27]. The shift also necessitated digital performance management tools within HRIS to monitor and evaluate employee performance, supported by regular virtual check-ins and engagement practices to maintain productivity and satisfaction (Pandey et al., 2024). Moreover, HRIS contributed to strengthening organizational culture by fostering open communication, virtual team-building, and employee engagement [27], [28] alongside integrating mental health and well-being initiatives into HR practices, thereby underscoring the importance of a supportive work environment [29].

The reviewed literature suggests that adaptability is closely linked to organizational agility, as an adaptive HRIS enables real-time data access and decision-making that allow firms to respond swiftly to market fluctuations and technological disruptions. Despite these advantages, challenges persist in integrating adaptability into legacy systems, which are often rigid and resistant to change, thereby underscoring the need for modular HRIS designs that can be continuously updated to meet evolving business needs. Adaptability also strengthens organizational resilience by positioning HRIS as a dynamic enabler rather than a static tool, but it requires sustained investment in system upgrades, training, and change management. Without fostering a culture that embraces digital transformation, the full potential of HRIS adaptability may remain underutilized.

4.2 Sustainability in HRIS

The literature indicates a growing recognition of sustainability as a vital element of HRIS, as sustainable systems promote environmentally friendly practices, ethical HR policies, and social inclusion. For instance, HRIS can support green HRM by tracking employee participation in sustainability initiatives, measuring resource usage, and reducing paper-based processes.

Environmental sustainability is reflected in HRIS functions that facilitate eco-friendly recruitment, provide training on sustainability, and offer green employee benefits that build a culture of environmental stewardship [30], [31]. Moreover, by reducing paper usage and encouraging energy-efficient practices, HRIS not only lowers an organization's carbon footprint but also reduces operational costs [31], [32].

In terms of social sustainability, HRIS enhances fairness in recruitment, performance evaluation, and compensation, which strengthens transparency and inclusivity in workplace practices [33]. Systems designed to reduce bias in decision-making and ensure equal access to information foster a more inclusive organizational environment [34]. Governance-related sustainability is also integral, as HRIS ensures compliance with labor laws, ethical standards, and data protection regulations, thereby reinforcing corporate accountability and responsible management [32]. By aligning HR practices with corporate social responsibility (CSR), HRIS contributes to meeting international standards and norms for environmental and social governance, positioning organizations to operate responsibly in the global business environment [33].

Despite its benefits, only a limited number of studies provide empirical evidence on the long-term effects of sustainable HRIS practices, leaving a research gap in understanding the link between HRIS sustainability and organizational performance. Integrating sustainability into HRIS not only aligns human resource practices with broader environmental, social, and governance (ESG) goals but also enhances organizational reputation and stakeholder trust. However, achieving true sustainability requires moving beyond operational efficiency to embedding HRIS within an ethical and socially responsible framework that supports long-term organizational success.

4.3 Digital Integration of HRIS

Digital integration emerged as the most dominant theme in the reviewed literature, with technologies such as artificial intelligence (AI), big data analytics, cloud computing, and blockchain reshaping HRIS functions. AI applications are widely utilized in recruitment processes for resume screening, candidate matching, and predictive analytics to identify high-potential employees [35], [36]. Beyond recruitment, AI automates routine HR tasks, enabling professionals to focus on strategic decision-making and personalized employee engagement [37], while AI-driven analytics generate valuable insights that support workforce planning and organizational strategies [11]. Similarly, big data allows HR managers to analyze workforce trends, turnover risks, and engagement levels, providing the foundation for data-driven strategies and more effective decision-making [11], [35].

Cloud computing further strengthens HRIS functionality by offering scalability and accessibility, ensuring employees and managers can interact with systems remotely and in real time, which is particularly critical in hybrid work environments [38]. This flexibility supports seamless communication, transparency, and collaboration, making HR practices more adaptive to evolving workplace models. Meanwhile, blockchain technology, although less widely adopted, presents strong potential for improving data security and verification in HR processes such as credential authentication, payroll management, and compliance monitoring [38]. Together, these digital tools provide opportunities to streamline HR functions, enhance operational efficiency, and create innovative solutions for workforce management.

Despite these benefits, digital integration in HRIS introduces significant challenges related to cybersecurity, algorithmic bias, and the ethical use of employee data. Organizations must therefore balance efficiency gains with robust data governance frameworks that safeguard employee privacy, ensure fairness in algorithmic decision-making, and comply with regulatory standards. Digital integration not only enhances HRIS functionality and organizational efficiency but also raises

ethical and regulatory concerns, making it essential for organizations to complement technological investments with safeguards that protect employee rights and foster trust in digital HR practices.

4.4 Cross-Theme Insights

The three themes are deeply interconnected. Adaptability enables HRIS to evolve in response to technological and societal shifts. Sustainability ensures that HRIS development aligns with long-term ethical and environmental goals. Digital integration provides the technological backbone for adaptability and sustainability. Together, these themes form a comprehensive framework for building HRIS that supports both organizational performance and social responsibility.

The review also identifies research gaps and future directions. Empirical studies are needed to measure the long-term performance outcomes of sustainable HRIS. Further research on cross-cultural HRIS adaptability can enrich understanding of how organizations in different regions balance local and global HR requirements. Moreover, the ethical implications of AI and big data in HRIS demand deeper investigation to ensure fairness and accountability in HR decision-making.

4.5 Implications for Practice

For practitioners, the findings suggest that organizations should prioritize adaptability by adopting modular HRIS architectures that can be continuously updated with new functionalities, embed sustainability by aligning HR practices with ESG goals while promoting inclusivity, transparency, and fairness, and leverage digital integration responsibly by balancing efficiency gains with strong attention to employee privacy, cybersecurity, and ethical governance.

4.6 Implications for Policy and Research

For policymakers, there is a need to establish regulatory frameworks that ensure data protection, fairness, and transparency in HRIS. For researchers, opportunities exist to conduct cross-sectoral studies, investigate long-term sustainability outcomes, and explore the intersection of HRIS with emerging digital trends such as the metaverse and generative AI.

5. CONCLUSION

The literature review of 35 scholarly documents underscores the evolving significance of Human Resource Information Systems (HRIS) in the digital era, with three key findings. First, adaptability allows HRIS to respond flexibly to organizational change, globalization, and unforeseen disruptions, thereby strengthening resilience and agility. Second, sustainability reflects the increasing integration of environmental, social, and governance (ESG) principles into HR practices, which promotes ethical responsibility, inclusivity, and long-term organizational value. Third, digital integration highlights the transformative role of technologies such as artificial intelligence, big data, cloud computing, and blockchain in improving efficiency, accessibility, and decision-making within HRIS. The synthesis of these themes reveals that adaptability, sustainability, and digital integration are interdependent dimensions that collectively shape the design of HRIS frameworks for the future, ensuring that organizations remain prepared to navigate uncertainty, meet stakeholder expectations, and maintain competitive advantage.

From a practical perspective, organizations should adopt modular HRIS designs to ensure adaptability, align HR practices with ESG principles for sustainability, and embrace digital technologies responsibly to guarantee transparency, privacy, and fairness. For policymakers, establishing clear governance and regulatory frameworks is essential to safeguard employee rights in the era of digital HR. Meanwhile, researchers are encouraged to explore cross-cultural perspectives, long-term performance outcomes, and the ethical implications of emerging technologies in HRIS. In conclusion, building an adaptive and sustainable HRIS in the digital age requires more than technological innovation—it necessitates a holistic approach that integrates agility, ethical responsibility, and digital

capability, ensuring that such systems not only enhance organizational efficiency but also contribute to inclusive and sustainable development in the broader digital economy.

REFERENCES

[1]   P. Agrawal and R. Narain, "Digital supply chain management: An Overview," in *IOP conference series: materials science and engineering*, IOP Publishing, 2018, p. 12074.

[2]   R. S. Wahdaniah, E. Ambalele, and A. H. Tellu, "Human resource management transformation in the digital age: Recent trends and implications," *Int. J. Appl. Res. Sustain. Sci.*, vol. 1, no. 3, pp. 239–258, 2023.

[3]   M. Silva and C. Lima, "The role of information systems in human resource management," *Manag. Inf. Syst.*, vol. 16, pp. 113–126, 2018.

[4]   Ramadhan Ridho Fadlulloh Iswandi and Mudji Kuswinarno, "Transformasi Pengembangan Sumber Daya Manusia di Era Digital," *Inisiat. J. Ekon. Akunt. dan Manaj.*, vol. 4, no. 1, pp. 250–262, 2024, doi: 10.30640/inisiatif.v4i1.3525.

[5]   W. O. Musmiarny Nilammadi, Othy Happy Dharmaning Savitry, and Eni Wuryani, "The Concept Of Human Resource Management In The Life Of Business Organizations In The Digital Era," *Sinergi J. Ilm. Ilmu Manaj.*, vol. 14, no. 1, pp. 20–28, 2024, doi: 10.25139/sng.v14i1.8358.

[6]   R. A. Nurimansjah, "Dynamics of Human Resource Management: Integrating Technology, Sustainability, and Adaptability in the Modern Organizational Landscape," *Golden Ratio Mapp. Idea Lit. Format*, vol. 3, no. 2, pp. 120–139, 2023.

[7]   A. Sadikin, H. Yodiansyah, Y. Budiasih, S. Sugiarti, and I. H. Kusnadi, "Adaptive Human Resource Management in Confrontation of Globalization's Challenges," *J. Ekon.*, vol. 12, no. 02, pp. 1761–1767, 2023.

[8]   V. Makedon, O. Mykhailenko, and O. Dzyad, "Modification of Value Management of International Corporate Structures in the Digital Economy," *Eur. J. Manag. Issues*, vol. 31, no. 1, pp. 50–62, 2023.

[9]   J. Stewart and C. Hocking, "Adaptive Sustainability for Business Management in an Age of Disruption and Transformation," in *Responsible Business in Uncertain Times and for a Sustainable Future*, Springer, 2019, pp. 1–17.

[10]   T. S. AlHarthi, "The Effect of AI on HRM Practices," in *Creating AI Synergy Through Business Technology Transformation*, IGI Global, 2025, pp. 189–202.

[11]   M. Madanchian, M. Vincenti, and H. Taherdoost, "Enhancing Human Resource Management with Artificial Intelligence: Opportunities, Challenges, and Best Practices," in *International Conference Interdisciplinarity in Engineering*, Springer, 2023, pp. 425–435.

[12]   P. Arun Prasad and T. J. Kamalanabhan, "Human resource excellence in software industry in India: an exploratory study," *Int. J. Logist. Econ. Glob.*, vol. 2, no. 4, pp. 316–330, 2010.

[13]   A. U. Manekar, "The Role of Technology in Shaping Modern Human Resource Management," *Int. J. Innov. Sci. Eng. Manag.*, pp. 91–97, 2024.

[14]   M. Setiyo *et al.*, *Proceedings of the 3rd Borobudur International Symposium on Humanities and Social Science 2021 (BIS-HSS 2021)*, vol. 667. Springer Nature, 2023.

[15]   S. Surianto, B. Badaruddin, and A. Firman, "Human Resource Management Strategies to Increase Adaptability in the Digital Age," *Proceeding Res. Civ. Soc. Desemination*, vol. 2, no. 1, pp. 1–15, 2024, doi: 10.37476/presed.v2i1.56.

[16]   W. Guo *et al.*, "Randomized trial of immediate postoperative pain following single-incision versus traditional laparoscopic cholecystectomy," *Chin. Med. J. (Engl).*, vol. 128, no. 24, pp. 3310–3316, 2015.

[17]   A. Kumar, *Handbook of Universities*, vol. 1. Atlantic Publishers & Dist, 2006.

[18]   C. Papademetriou, S. Anastasiadou, D. Belias, and K. Ragazou, "Integrating Sustainability into Human Resource Management: Building a Greener Workforce for the Future," *Sustainability*, vol. 17, no. 3, p. 1113, 2025.

[19]   F. Civelek *et al.*, "Open-eco-innovation for SMEs with pan-European key enabling technology centres," *Clean Technol.*, vol. 2, no. 4, pp. 422–439, 2020.

[20]   R. Khare, N. Singh, and M. Nagpal, "Integrating sustainable HRM with SDGs: capacity building and skill development for ESG implementation," in *Implementing ESG Frameworks Through Capacity Building and Skill Development*, IGI Global Scientific Publishing, 2025, pp. 261–280.

[21]   M. Alzoraiki, A. Y. M. Alastal, M. Milhem, and A. Ateeq, "Alignment imperative: integrating HRM and corporate governance for sustainable success," in *The AI Revolution: Driving Business Innovation and Research: Volume 1*, Springer, 2024, pp. 111–118.

[22]   S. U. Nurhasanah and J. M. Sinambela, "Digital transformation in human resource management: challenges and opportunities," *Brill. Int. J. Manag. Tour.*, vol. 2, no. 3, pp. 307–317, 2022.

[23]   A. Wang, "Enhancing HR management through HRIS and data analytics," *Appl. Comput. Eng.*, vol. 64, no. 1, pp. 223–229, 2024.

[24]   S. A. Bhat and A. T. Zahid, "Role of ICT facilitation in mobilizing the performance of business research process in North India: An empirical study on HEIs," *Glob. knowledge, Mem. Commun.*, vol. 67, no. 1/2, pp. 70–90, 2018.

[25]   S. Gupta and S. Agarwal, "A Study on Integration of Advanced Technology in International Human Resources," *Available SSRN 5083809*, 2024.

[26]   S. M. S. Haque, "The impact of remote work on hr practices: navigating challenges, embracing opportunities," *Eur. J. Hum. Resour. Manag. Stud.*, vol. 7, no. 1, 2023.

[27]   R. Ambarwati, B. Nadeak, H. Sofyan, A. Rosid, and I. A. Priatna, "Adapting HR Practices for Remote Work: Lessons from the Post-Pandemic Era, Case Study at Uniska MAB Banjarmasin.," *Int. J. Econ.*, vol. 3, no. 1, 2024.

[28] A. Pandey, A. Dubey, L. M. Anand, K. M. Ashifa, and M. M. Rahman, "Adaptive Workforce Optimization in HRM Practices Amid Large-Scale Disruptions," in *Public Sector and Workforce Management in the Digital Age*, IGI Global Scientific Publishing, 2025, pp. 121–136.

[29] A. M. Sahal, M. O. Abdullahi, I. H. Mohamud, and A. A. Elmi, "Remote work and telecommuting: A comprehensive bibliometric analysis of HRM practices post-pandemic," *Int. J. Elec-trical Electron. Eng.*, vol. 11, no. 11, pp. 312–325, 2024.

[30] A. I. Alegbesogie, "The impact of green human resource management practices on organisational performance," *Vilnius Univ. Proc.*, vol. 37, pp. 6–11, 2023.

[31] V. Thakur, S. Chaudhary, M. Barman, and V. Kumar, "Emerging Trends In Agricultural Economics Agribusiness: An Edited Anthology Volume 3".

[32] J. Sathyapriya, R. Kanimozhi, and V. Adhilakshmi, "Green HRM-Delivering high performance HR systems," *Int. J. Mark. Hum. Resour. Manag.*, vol. 4, no. 2, pp. 19–25, 2013.

[33] M. S. AC, B. G. Nagara, and N. Taluk, "Green Human Resource Management," *Futur. Trends Manag. Vol. 3 B. 20*, vol. 3, no. 2, pp. 357–366, 2024.

[34] S. Faisal, "Green human resource management—a synthesis," *Sustainability*, vol. 15, no. 3, p. 2259, 2023.

[35] P. Martín-Hernández, "Artificial intelligence: The present and future of human resources recruitment and selection processes," *Eng. Proc.*, vol. 56, no. 1, p. 188, 2023.

[36] J. Du, "Unlocking the potential: Literature review on the evolving role of AI in HRM," *Front. Manag. Sci.*, vol. 3, no. 1, pp. 28–33, 2024.

[37] D.-F. DĂNILOAIA, "Exploring the Landscape: A Literature Review of AI's Impact on Human Resource Management," *Eur. J. Public Adm. Res.*, vol. 3, no. 3, pp. 15–22, 2024.

[38] D. K. Maheswari, A. Kumar, D. T. D. Humnekar, D. A. Prabhakar, D. B. Haralayya, and M. Kumar N, "Impact of AI and blockchain technology in the growth of digital HRM transformation as a function of management," *Educ. Adm. Theory Pract.*, vol. 30, no. 4, pp. 1685–1693, 2024.