

Electronic Human Resource Management: A Contemporary Review of Organizational and Employee Performance

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Abstract: This research aims to review and explore the impact of EHRM on organizational and employee performance. In addition, a narrative literature review was conducted on peer-reviewed studies published primarily between 2014 and 2026. The manuscript was identified from key academic databases relevant to the study and then analyzed using thematic synthesis. E-HRM contributes to improving organizational performance by enhancing HR effectiveness, operational effectiveness, transparency of HR decision-making, employee productivity, job satisfaction, job engagement, and employee commitment. Leadership support, organizational readiness, employees' digital competence, and data governance are all crucial for successful implementation. The challenges of resistance to change, lack of digital competence, digital stress, and privacy issues remain to be addressed. Artificial Intelligence, HR analytics, cloud-based solutions, and blockchain are among the new technologies transforming HR in the digital world. E-HRM should be better aligned with the business goals, provide employees with more chances to acquire digital competencies, and adopt more sophisticated cybersecurity policies and responsible AI governance. The critical review is original, as it combines existing studies on organizational and employee performance, implementation factors, new technologies, problems, recommendations, and future research on E-HRM.

Keywords: Electronic Human Resource Management; Organizational Performance; Employee Performance; Digital Transformation; Literature Review.

Introduction

The rapid development of digital technologies and the pace of digital transformation have transformed how organizations manage their human resources, shifting from traditional administrative practices to integrated, technology-enabled strategic practices (El Garem, 2026). With the surge of organizations undergoing digital transformation, Electronic Human Resource Management (E-HRM) has become a crucial tool in optimizing HR management, enriching employee experiences, and boosting organizational competitiveness (Alqarni et al., 2023; Bhardwaj et al., 2025; Bindra et al., 2025). E-HRM is the process of planning, implementing, and using web-based technologies and information systems in HR policies, practices, and services that help organizations implement strategic decisions and streamline HR functions (De Alwis et al., 2022). E-HRM differs from HRM in that it uses digital technologies, employee self-service, and cloud-based systems, along with sophisticated analytics, to enhance communication, information sharing, and the management of employee resources across organizational levels (Maqueira Marín et al., 2022). The global, technological, remote, and hybrid work environment, along with growing demands for agility, has played a major role in the spread of E-HRM. Globalization, technology, telecommuting, and organizational agility are significant factors in the proliferation of E-HRM. Organizations are therefore spending large amounts of money on digital HR solutions to streamline their administrative processes, boost talent acquisition and employee development, improve HR performance management, and enable evidence-based HR decision-making (Roul et al., 2025). Modern innovations such as artificial intelligence (AI), machine learning, predictive analytics, cloud computing, blockchain, and mobile human resource management (HRM) applications have also added

new dimensions to E-HRM, enhancing its capabilities through personalization, intelligent decision-making, and data-driven HR planning (O'Brien et al., 2025).

There has been a significant increase in research on E-HRM over the last decade across various organizational and national settings. Best practice in E-HRM implementation has been repeatedly shown to have a positive impact on organizational achievement in the following ways: it increases HR efficiency, operational effectiveness, service quality, organizational agility, and strategic decision making, and decreases administration costs (Bag et al., 2022; Bondarouk et al., 2017). The individual-level studies revealed that increased productivity, job satisfaction, employee engagement, organizational commitment, effective communication, and knowledge sharing are connected to E-HRM (Alshibly & Alzubi, 2022; EL GUENUNI et al.; Martin & Reddington, 2010). But these benefits vary across a range of situational factors, including organizational preparedness, technological infrastructure, leadership enablers, employees' digital competence, and organizational culture (Maier et al., 2013).

Although E-HRM research has been flourishing, the available evidence remains scattered. Previous research has focused on a specific element of E-HRM, such as the use of technology, HR effectiveness, strategic HRM, or organizational outcomes, with less focus on the impact of E-HRM on both the organizational and employee outcomes from the same paradigm (Chapano et al., 2023). Moreover, in the last few years, advances in AI, HR analytics, cloud-based HR-enabling systems, and Digital workplace technologies have changed E-HRM practices more than many previous reviews have examined, necessitating a fresh synthesis of the current evidence that reflects the changing digital HR environment.

This review is intended to address these gaps and gather the latest research on E-HRM, pinpointing the most prominent studies on HRM that consider the impact of E-HRM on organizational and employee performance. This review is not an overview of the individual studies, but rather a synthesis of the available evidence to illustrate patterns and commonalities in success factors for implementation, emerging technologies, ethical and organizational issues, and future research needs across a variety of organizations and geographic locations. Thematic synthesis is employed to create a knowledge base on the value of E-HRM and its effects on employee outcomes, and to gain insights into the contexts in which E-HRM initiatives are more successful.

This review is an extensive synthesis of current evidence that has not been exclusively explored from either an E-HRM adoption, HR-digitalization, or an organizational outcome perspective, but rather combines all aspects of organizational performance, employee performance, the success factors of implementing HRM, the new technologies used in HRM, ethical issues, and future research directions of HRM in a unified conceptual framework. This new perspective will expand the current literature on E-HRM and offer theoretical insights and practical guidance for researchers, HR practitioners, organizational managers, and policymakers seeking to leverage digital HR technologies to improve organizational performance and employee effectiveness.

Methodology

This review adopted a structured approach to the literature, using a narrative construct to synthesize existing research on Electronic Human Resource Management (E-HRM) and its impact on organizational performance, particularly among employees. The overall goal of this study is not to systematically review the literature, but to summarise, critically synthesize, analyze, and appraise the literature and identify overarching research themes, examine emerging trends, and pinpoint potential future research activities. A structured narrative review is helpful when the objective is to provide a broad overview of a heterogeneous research area, such as E-HRM, in terms of context, methods, and theoretical approaches (Strohmeier, 2007).

The literature search was conducted using the major academic search databases, namely Scopus, Web of Science, ScienceDirect, Emerald Insight, SpringerLink, Taylor & Francis Online, Wiley Online Library, and Google Scholar. The research was primarily based on peer-reviewed journal articles published between 2014 and 2025; in some cases, seminal articles were also considered to provide the theoretical and conceptual background of EHRM. The following keywords were part of the search: Electronic Human Resource Management (E-HRM), Digital Human Resource Management, HR digitalization, organizational performance, employee performance, HR effectiveness, employee satisfaction, employee productivity, and digital transformation. To obtain the most comprehensive list of relevant studies possible, backward and forward citation searches were conducted on key publications.

The most preferred literature was empirical studies, review articles, and conceptual papers published in high-impact, reputable, peer-reviewed journals. To ensure the quality, relevance, and consistency of the evidence reviewed, conference abstracts, editorials, dissertations, book reviews, and publications in languages other than English were excluded. Selected studies were critically analyzed and summarised under the following areas: conceptual foundations, organizational performance, employee performance, critical success factors, implementation challenges, emerging technological trends, and directions for future research. The aim of this thematic synthesis was to provide an integrated overview of the existing research on E-HRM, highlight key knowledge gaps, and identify opportunities for future research.

It is a literature review, but it does not aim to follow the full PRISMA 2020 guidelines as it is not intended to systematically collect evidence and perform a meta-analysis, but rather to allow conceptual synthesis and critical interpretation of the literature.

Conceptual Foundations of Electronic Human Resource Management (E-HRM)

Electronic Human Resource Management (E-HRM) is now considered a strategic approach that combines information and communication technologies (ICTs) with human resources management (HRM) to improve HR service value, organizational effectiveness, and strategic decision-making. In contrast to conventional HRM, E-HRM adopts web-based applications, enterprise resource planning (ERP) systems, cloud computing, and digital platforms to automate and streamline HR processes – such as hiring, selection, training, performance assessment, payroll, and communication among employees (Kambur & Yildirim, 2023; Masum, 2017). The transformation of E-HRM is a process that “embarks on digital transformation” of organizations, meaning that technology itself is becoming not only an operational tool but also a strategic capability that organizations use to become competitive and generate long-term value (Sinha et al., 2026).

The concept of E-HRM has evolved significantly over the last 20 years. Initial investigations focused on E-HRM as an administrative innovation to enhance HR efficiency and reduce operational costs (Parry, 2011). More recent studies, however, acknowledge that E-HRM is a strategic organizational capability that promotes knowledge transfer, evidence-based decision making, employee engagement, and agility and organizational innovation (Alqarni et al., 2023). This is a shift in HR from administration to business partners that drive value in the organization through digital technologies.

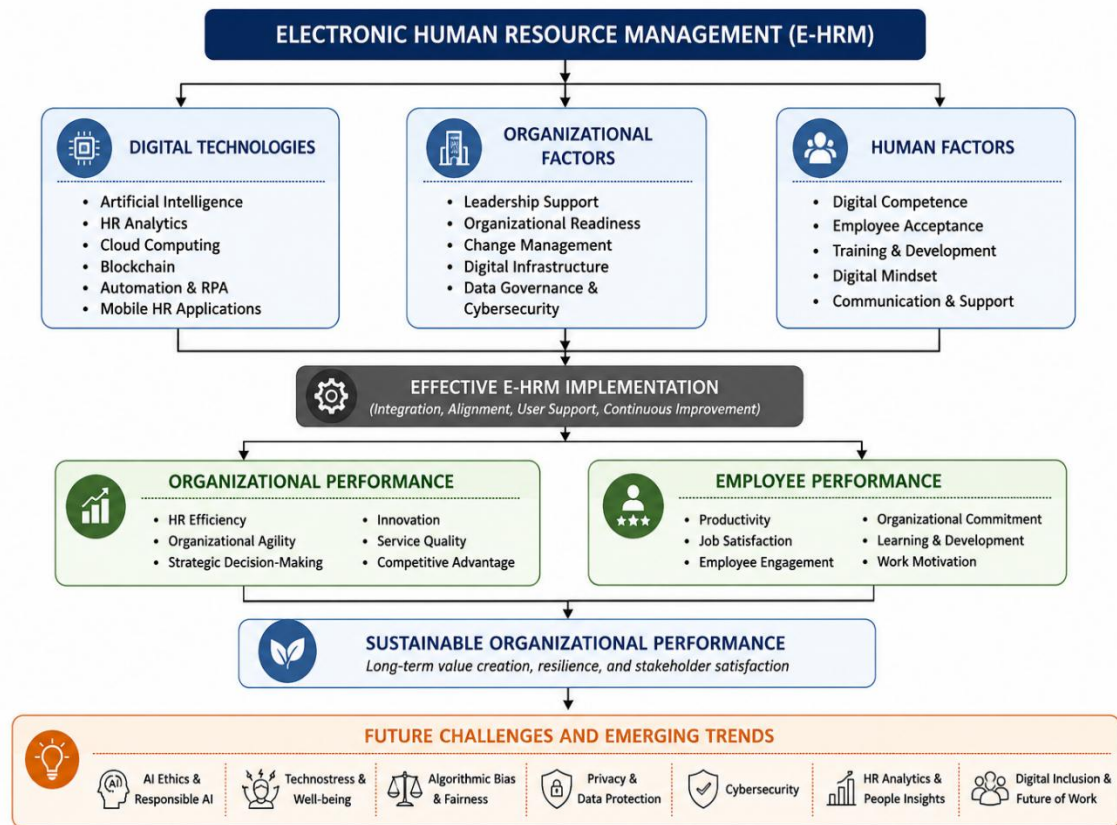
The study is based on several theoretical perspectives that underpin an understanding of E-HRM and its organizational outcomes. The Resource-Based View (RBV) focuses on how well organizations leverage valuable, rare, inimitable, and non-substitutable resources to create sustainable competitive advantage (Barney & Arikan, 2005). E-HRM systems are organizational resources and tools that contribute to human resource development, decision-making, and organizational performance. (Rana & Kaur, 2024) argue that the successful implementation of E-HRM relies on three factors – technology readiness, organizational characteristics, and the environment, such as competitive pressures and regulatory support – collectively known as the TOE model. Moreover, based on Social Exchange Theory (SET),

digital HR systems that are fair, efficient, and supportive of employees are more likely to elicit higher commitment, engagement, and job performance (Reader et al., 2017). All of these theoretical constructs imply that the implementation of E-HRM is just as dependent on the organization's readiness as on technological capabilities, and that employees' behavioral reactions, namely attitudes, will affect organizational and employee performance.

There are three functional dimensions of E-HRM in the literature: operational, relational, and transformational E-HRM (Strohmeier & Kabst, 2014). The purpose of operational eHRM is to automate manual human resource tasks such as payroll processing, attendance management, and employee data management. Relational E-HRM is applicable to HR processes related to employee/manager relationships, such as recruitment, training, performance management, and internal communication. With Transformational E-HRM, HR can be more directly involved in organizational strategy, innovation, and long-term performance, including talent management, succession planning, workforce analytics, and organizational change initiatives (Muzaffar et al., 2024).

AI, predictive HR analytics, cloud computing, the blockchain, mobile HR apps, and generative AI have further revolutionized E-HRM in recent years. By leveraging these technologies, organizations can gain better insights into their talent needs and implement proactive strategies, all while enhancing their agility, improving employee experiences, and supporting evidence-based strategic HR decisions (McIver et al., 2018). This makes E-HRM a pivotal element in an organization's digital transformation strategy, enabling it to enhance employee performance, optimize business processes, and maintain a competitive edge in today's rapidly evolving business landscape.

The conceptual framework was formulated based on the literature review and is illustrated in Figure 1. It summarizes the main technological, organizational, and human issues that can affect the successful implementation of E-HRM, providing examples of how these issues affect both organizational and staff performance. In addition, the framework identifies emerging technologies and current implementation issues that are likely to have the greatest impact on the future development of E-HRM and serves as an analytical roadmap for the subsequent parts of this review.



Source: Developed by the authors based on the reviewed literature.

Figure 1. Conceptual Framework of Electronic Human Resource Management (E-HRM): Drivers, Implementation, and Performance Outcomes

Discussion and Theoretical Insights

E-HRM and Organizational Performance

With the advent of Electronic Human Resource Management (E-HRM), it has become evident that it is a strategic organizational capability to go beyond the automation of routine human resource management activities. Different organizational contexts, as per the research conducted in recent days, highlight that E-HRM has a positive effect on organizational performance in terms of improving operational efficiency, decreasing administrative costs of an organization, improving HR service quality, and supporting decision-making based on evidence (Bag et al., 2022; Rahman et al., 2018; William & Singh, 2023). E-HRM can optimize HR management processes, provide timely access to workforce data, and support informed decision-making for organizations, enabling strategic HR management decisions. As a result, HR roles and departments transform from administrative support functions into partners that drive organizational agility, innovation, and sustainable competitive advantage.

The literature also suggests that complementing organizational capabilities and skills enhances the association between E-HRM and organizational performance. Based on the published literature, the empirical studies suggest that organizational agility, knowledge management, HR service quality, and sustainable competitive advantage are important mechanisms that enable the positive impact of digital HR practices on organizational outcomes (Alqarni et al., 2023; Balouch et al., 2026; Mahmoud et al., 2025). The implications of these results are that the advantages of E-HRM do not materialize solely in

the use of technology, but also in organizations' capacity to embed and align digital HR processes and practices with other organizational processes and capabilities.

While the overwhelming majority of the literature has documented positive outcomes from an organization's use of E-HRM, there are indications that the benefits are not universal. Organizational readiness, leadership commitment, technological infrastructure, employee digital competence, and organizational culture are important factors that enhance E-HRM. However, digital adoption and creating an adequate implementation strategy may not yield sufficient performance gains in organizations lacking in digital capability or with under-resourced implementation efforts (Alwali et al., 2025). Moreover, obstacles to implementation, including resistance to change, ineffective system integration, lack of managerial support, and ineffective change management practices, could affect the strategic benefits of E-HRM. The results of this research highlight that for technology to improve organizational performance, it needs to be paired with complementary organizational skills, effective leadership, and employee readiness to embrace digital transformation.

The literature review found that E-HRM, when combined with appropriate technological, organizational, and human capacities, is a strategic tool for enhancing organizational performance. These organizational gains are well established, but it is equally crucial to recognize the effects of E-HRM on individual employee outcomes, as these will ultimately determine how much organizations will actually get out of digital HR transformation. Thus, the next section looks into the association between EHRM and employee performance.

E-HRM and Employee Performance

Employee performance is identified as one of the key successes factors after implementing E-HRM (Nyathi & Kekwaletswe, 2024). In reality, the empirical studies demonstrate that E-HRM can positively affect employee productivity because of its benefits such as process efficiency, communication, accessibility of HR service, continuous learning, performance management, and career planning (Al Shobaki et al., 2017; Fındıklı & beyza Bayarçelik, 2015). It eliminates administrative processes and allows staff to access HR-related information and self-service applications in a timely manner, enabling them to do their jobs more efficiently and better align with the organization's goals. From these empirical findings, it seems that E-HRM can help improve employee performance through creating a more responsive, collaborative, and digitally supported workplace.

Apart from productivity, numerous studies have consistently revealed that E-HRM has positive impacts on satisfaction, organizational commitment, employee motivation, organizational commitment, and knowledge sharing. The seamless digital HR systems have proven successful across various sectors, such as banking, manufacturing, healthcare, and telecommunications, and in higher education, they have significantly improved employee experiences by fostering greater transparency, responsiveness, convenience, and fairness in HR service delivery (Bhatti & Alqasa, 2025; Subrahmanyam, 2025). Overall, these findings indicate that E-HRM enhances employees' performance competence by improving their task performance and attitudes towards work, thereby increasing organizational efficiency.

While the aforementioned findings are favorable, there are also several challenges in implementing HRM. But many issues with HRM implementation have also been noted in the literature. However, relying too heavily on digital HR tools can result in technostress, technology anxiety (TA), and consumer resistance to digital tools among users of lower digital competencies (Makowska-Tłomak & Bedyńska, 2026). Furthermore, the widespread use of electronic monitoring and the introduction of artificial intelligence-based performance management systems could result in employees being monitored, employee autonomy being lost, and problems with privacy, transparency, and algorithmic fairness. The obstacles emphasize the need to balance technology with employee health, encouraging

organizations to prioritize continuous education and technical assistance, communicate effectively with employees about these new tools, and adopt a responsible leadership approach to managing AI-driven HR practices. Under this people-first approach, it is essential to keep employees on board, adopt technology, and continuously improve.

From the literature reviewed, it is clear that employee performance can be enhanced through E-HRM, as it increases productivity and operational efficiency and encourages employees to be engaged, committed, and continually developed. However, the benefits are more likely to be realized if the right organizational capabilities, employees' digital competence, and ethical implementation practices support digital HR initiatives.

Critical Success Factors for Effective E-HRM

To successfully implement E-HRM, human, technological, and organizational capabilities must be successfully integrated. Various factors identified in the literature include top management support, organizational readiness, technological infrastructure, employees' digital competence, and strategic alignment (Rahman et al., 2018). Moreover, companies with the company goal in mind are more likely to increase HR efficiency, improve decision-making, and increase overall company performance in the digital HR space compared to companies that only consider digital HR as a technology investment (L'Écuyer & Raymond, 2023). The findings of this research indicated that the strategic importance of E-HRM is not limited to the use of technology but also encompasses the integration of technology into an organization's strategic and long-term business plans.

Another theme in the literature was emphasized: the importance of Employee Capabilities and Organizational Culture. The empirical literature indicates that employee training, ease of use, supportive organizational culture, and effective change management have a significant effect on the acceptance of technology, employee engagement, and the utilization of systems (Nyamboga, 2025). Furthermore, if proper cybersecurity mechanisms, sound data management practices, and effective communication are in place, these could build trust among employees in digital HR processes, making the processes more efficient and reducing resistance, thus leading to the sustainable implementation of E-HRM.

The need to ensure the proper and responsible use of AI in HR and predictive HR analysis increases as companies make it part of their operations. But as companies start using such human resource tools and predictive HR analytics, it's becoming more crucial to ensure they are being managed ethically and responsibly. Furthermore, as HR teams and predictive HR analytics increasingly adopt AI tools, recent research underscores the need for ethical governance and responsible technology management. Transparency, accountability, explainability, and fairness in algorithmic decision-making are more relevant than ever for gaining employee trust and maintaining company legitimacy. Hence, it is crucial to have clearly defined governance structures to monitor the utilization of AI in HR decision-making, mitigate algorithmic bias, protect employee privacy, and ensure effective human oversight of critical HR decisions (Amoako et al., 2023). From the literature review, it was found that, in addition to technological investment, strategic leadership, ethical management, and employee engagement are also needed to implement E-HRM successfully, and that digital HR practices need to be continuously evaluated.

Challenges and Barriers to E-HRM Adoption

The literature clearly shows that although Electronic Human Resource Management (E-HRM) offers many benefits to the organization, there are also barriers that may impede its successful implementation. The common issues that are reported are resistance to organizational change, lack of technological infrastructure, lack of financial resources, lack of digital competencies, weak managerial support, and lack of organizational readiness. This can be particularly pronounced in developing nations where

organizations may lack resources, digital maturity, and access to institutional support. All these studies suggest that successful implementation of E-HRM requires not only investment in technology but also organizational readiness, a leadership role, and continuous development of human resource capabilities (William & Singh, 2023).

Aside from these traditional issues, new technologies have created additional organizational and moral issues. The role of AI in HR has raised concerns about algorithmic bias, transparency, explainability, and fairness in HR decisions, particularly regarding AI recruitment tools, AI performance evaluation tools, and HR analytics. Likewise, other issues arising from personal data privacy, work ethics, cybersecurity, and ethical use of digital tracking and HR cloud applications are also linked to the ubiquitousness of digital tracking systems and HR cloud applications (Amoako et al., 2022). The idea of digital transformation underscores the relevance of HR beyond technology, its importance in the context of responsible governance, and the need not to delegate the organization's legitimacy and trust.

The literature review will show that a holistic strategy is required to successfully resolve these issues, including technological readiness, organizational change management, employee engagement, strengthening cybersecurity, and ethical AI governance. A technically and humanly successful implementation of E-HRM is more likely to occur in a proactive organization, as it has recognized the potential of E-HRM to play a strategic role.

Emerging Trends in E-HRM

As digital technologies evolve so quickly and HR becomes a key enabler of organizational transformation, the future of Electronic Human Resource Management (E-HRM) is being shaped. Today, businesses are implementing AI, Generative AI, predictive HR analytics, cloud computing, blockchain, mobile HR apps, and intelligent automation in HR-related tasks to enhance decision-making and workforce management. This helps improve HR functions by making them more proactive, strategic, and evidence-based through data-driven recruitment, personalized learning and development, predictive workforce planning, automation of administrative tasks, and expanded employee self-service (Nyamboga, 2025). The body of knowledge has clearly demonstrated that, beyond the digitalization of traditional HR tasks, E-HRM is becoming more intelligent and data-driven, enabling organizations to be agile, innovative, and sustainable.

In addition to technological progress, a growing focus on employee experience, digital well-being, ethical AI, and responsible data governance is also gaining importance. The use of digital platforms in HR has grown, and they have become essential for promoting a hybrid work style, continuous learning, real-time collaboration, and personalized employee services—while also prioritizing transparency, cybersecurity, and employee (Iqbal, 2026). Going forward, E-HRM systems will become increasingly secure, employee-centric, and user-friendly, while fostering innovation, sustainability, and ethical considerations, all aimed at ensuring that digital HR practices contribute to better employee well-being and organizational success.

Another recent study reveals that E-HRM will become increasingly linked to other digital transformation efforts and sustainability initiatives. Digital competency, AI governance, and adaptive digital capabilities will be integral to the next-generation E-HRM system to maximize strategic potential. These advancements also pave the way for future studies in organizational, behavioral, and ethical impacts of using AI in human resource technologies.

Research Gaps and Future Research Directions

While there has been considerable research interest and the field of Electronic Human Resource Management (E-HRM) has grown significantly in the last ten years, important knowledge gaps remain. The existing studies have examined the direct effects of E-HRM on organizational and employee

performance, using cross-sectional designs in a single-country setting. As a result, the understanding of value creation processes in E-HRM is still limited, and findings on how contextual factors, such as organizational culture, digital maturity, leadership, organizational size, and institutional environment, impact E-HRM effectiveness are still nascent (Ghosh et al., 2024; Poulouse et al., 2025). Therefore, further studies on the implementation of E-HRM and its long-term outcomes in organizations need to be conducted using a longitudinal, multi-level, and cross-country comparative design to gain a more comprehensive understanding of E-HRM implementation and its long-term organizational outcomes.

The integration of new digital technologies into HRM remains an area of ongoing research. Whereas the influence of AI, Generative AI, Predictive HR Analytics, Blockchain, and Cloud-based HR applications on algorithmic fairness, explainability, employee privacy, digital surveillance, cybersecurity, organizational trust, and well-being is heavily debated, and there is limited empirical evidence to support these debates (Huong & Thi Hue, 2026). With the increasing prevalence of AI-powered HR applications, future research might explore how to balance technological advancement with ethical governance, transparency, and responsible AI use.

Theoretically, there is still considerable segregation in the literature, as many studies are based on a single theory. Complementary approaches such as the Resource-Based View (RBV), the Technology–Organization–Environment (TOE) model, the Social Exchange Theory (SET), and the Dynamic Capability Theory should be incorporated into future research to provide a more comprehensive understanding of E-HRM adoption, implementation, and performance outcomes. More theoretical integration would enhance understanding of how organizational, technological, and human factors interact to create a successful digital HR transformation.

Future research on E-HRM needs to shift from considering whether digital HR technologies are beneficial to organizational outcomes to how, why, and when they can create sustainable value. This type of study will not only support the advancement of theoretical models and theories but also guide organizations looking to thrive in the dynamic digital HR environment.

Synthesis of Contemporary Research on Electronic Human Resource Management (E-HRM)

Table 1. Synthesis of Contemporary Research on Electronic Human Resource Management (E-HRM)

Theme	Key Findings	Representative Studies	Research Limitations	Future Research Priorities
Conceptual Foundations	E-HRM has evolved from an operational HR tool to a strategic organizational capability.	(Bondarouk et al., 2017; Marler & Parry, 2016; Shahreki et al., 2026)	Limited theoretical integration.	Develop integrated conceptual frameworks incorporating AI, digital transformation, and strategic management perspectives.
E-HRM and Organizational Performance	Improves operational efficiency, HR effectiveness, organizational agility, innovation, and strategic decision-making.	(Alqarni et al., 2023; Nyamboga, 2025; Vadithe et al., 2026)	Evidence is predominantly cross-sectional and context-specific.	Conduct longitudinal, cross-industry, and cross-country comparative studies.
E-HRM and Employee Performance	Enhances employee productivity, engagement, satisfaction, commitment, learning, and knowledge sharing.	(Alrifae et al., 2026; Nyathi & Kekwaletswe, 2024; Shahreki et al., 2026)	Limited evidence on employee well-being, technostress, and long-term behavioral outcomes.	Examine psychological, behavioral, and well-being outcomes using longitudinal research designs.
Critical Success Factors	Leadership support, organizational readiness, digital competence, training, cybersecurity, and ethical governance facilitate successful implementation.	(Al Maazmi et al., 2024; Alwazrah et al., 2025; Krinsky, 2026)	Limited understanding of interactions among technological, organizational, and human factors.	Develop integrated implementation and governance models for digital HR transformation.
Challenges and Barriers	Resistance to change, privacy concerns, technostress, employee surveillance, cybersecurity risks, and algorithmic bias hinder implementation.	(Fu et al., 2026; Ghamghami, 2024; Subrahmanyam, 2026)	Ethical AI governance and digital inclusion remain underexplored.	Investigate the adoption of responsible AI, digital inclusion, and ethical governance frameworks.
Emerging Trends	AI, Generative AI, HR analytics, blockchain, cloud computing, mobile HR applications, and intelligent automation are transforming HR practices.	(Bastone, 2026; de Villiers et al., 2025; Tenderis)	Limited empirical evidence on long-term organizational impacts.	Evaluate the sustainability, effectiveness, and organizational impact of emerging HR technologies.

Theme	Key Findings	Representative Studies	Research Limitations	Future Research Priorities
Research Gaps	Existing research is dominated by cross-sectional, single-country studies with limited theoretical integration and insufficient attention to the ethical implications of AI-enabled E-HRM.	(Dimri et al., 2026; Rahman, 2025; Yin & Wang, 2026)	Lack of longitudinal, comparative, multi-level, and mixed-method evidence.	Promote interdisciplinary, longitudinal, and theory-driven research integrating RBV, TOE, SET, and Dynamic Capability Theory.

Table 1 summarizes the principal themes emerging from the reviewed literature, including key findings, representative studies, existing research limitations, and future research priorities. Rather than presenting isolated evidence, the synthesis demonstrates how contemporary E-HRM research has progressively evolved from a technology-oriented to a broader strategic perspective, encompassing organizational performance, employee outcomes, implementation capabilities, ethical governance, and digital transformation. The table also highlights recurring research patterns and identifies areas requiring further theoretical development and empirical investigation.

The literature indicates that E-HRM is now a multidimensional strategic capability that helps achieve organizational effectiveness through enhanced HR processes, more effective evidence-based HR decision-making, and improved employee performance. But to realize these benefits, complementary organizational capabilities are required, such as leadership commitment, organizational readiness, digital competence, moral principles for AI usage, and change management. Responsible innovation, human-centered transformation with digital technologies, and sustainable value creation for the organization will be key themes in the research on E-HRM. The activities will help develop a broader awareness of the potential of digital HR technologies to enhance the organization's competitiveness, employee health, and longer-term resiliency.

Practical Implications

The review can have various implications for future leaders, HR, technology suppliers, and policymakers of organizations that wish to gain maximum benefit from Electronic Human Resource Management (E-HRM) toward their strategic goals. E-HRM is not only a technology project but also a part of a business strategy and human resource development of organizational units (Rahman, 2026). This effective implementation requires the leader's full commitment to the strategy, effective change management, and ongoing checks on the long-term effectiveness of the E-HRM functions and the organization's sustainable competitive edge.

Continuous training, technical support, and learning opportunities should be encouraged and invested in to improve employees' digital competence and ensure the proper use of systems and technologies (Donmez & Donmez, 2026). HR managers must embrace advanced digital tools, such as predictive HR analytics and AI-driven decision-making support, to effectively leverage them for HR talent acquisition and recruitment, workforce planning, performance management, employee development and growth, and evidence-based decision-making. Funds allocated for these investments need to be dedicated to implementing the relevant cybersecurity measures, robust data governance guidelines, and communication efforts to safeguard employee information and boost employee confidence in digital HR tools.

Managers need to implement effective governance protocols to move AI-powered HR tools into the organization's decision-making processes with transparency, accountability, fairness, and human oversight. AI can complement responsible innovation in digital HR management by managing algorithmic outcomes, ensuring employee data privacy, and enabling regular AI-driven evaluation of HR processes, which can help reduce bias, improve legitimacy, and promote responsible innovation (Bhatkulkar, 2026).

The roles of technology players and HR software developers cannot be overlooked in the successful implementation of E-HRM. Future digital HR platforms must be more intuitive, understandable, and robust in cybersecurity and privacy-by-design, and accessible to employees with varying levels of digital skill. The ease of use, security, and transparency of an intuitive system can increase user acceptance, trust in the organization, and the sustainability of the E-HRM initiatives (Rahman, 2026).

Finally, the national policy should promote and support the widespread adoption of E-HRM by investing in national digital infrastructure, enhancing workforce digital skills, and creating policies that facilitate the safe, responsible, and ethical use of HR technologies. Collaborating to create the workforce of the future and to encourage sustainable digital transformation in organizations will require the cooperation of government, education, industry, and professional organizations.

All the above practical suggestions indicate that, in addition to technological development, strategic management, workforce readiness, responsible governance practices, and an enabling institutional environment are also needed for the success of E-HRM. With the help of human-centric management principles, technological innovations can enable organizations to optimize the returns this digital HR transformation offers the organization and its employees.

Conclusion

From merely an administrative HR support tool to a strategic capability of an organization, Electronic Human Resource Management (E-HRM) has progressed, supporting organizational transformation towards digitalization and its effectiveness. This review highlights the latest evidence on how E-HRM can contribute to overall organizational efficiency, the quality of HR services, evidence-based decision-making, and further enhance the organization's agility. E-HRM offers numerous advantages for the employee, such as greater productivity, satisfaction, engagement, organizational commitment, and ongoing learning, all of which result from technology-driven HR services that are easily accessible and transparent.

Finally, the review illustrates that investing in technology is an important consideration, but not the only one: other aspects are equally significant, including leadership commitment, organizational readiness, employees' digital skills, change management, and data governance. At the same time, published research shows that implementation challenges persist, including resistance to change, technostress, privacy concerns, employee monitoring, and potential algorithmic bias in AI tools used for HR tasks. According to the findings, the implementation of e-HRM should be balanced, as it involves technological innovation, ethical governance, human-focused management, and continuous organizational learning.

This review synthesizes evidence-based findings on organizational performance, employee performance, critical success factors and barriers to implementation, emerging technologies, and future research priorities to present a comprehensive and up-to-date picture of E-HRM. It also identifies important directions for research, including the need for longitudinal studies, cross-country studies, stronger theoretical integration with the HR literature, and the ethical, behavioral, and societal implications of such HR technologies.

This review has a number of limitations. It primarily emphasizes English-language peer-reviewed publications and does not constitute a formal, systematic review or meta-analysis. Hence, it is possible that other relevant studies have been published in other languages, in grey literature, and/or are recent and not yet captured.

As businesses become more comfortable with AI and data-informed HR practices, the ability to integrate technological innovation, governance, employee well-being, and organizational resilience will be even more vital to the future of E-HRM. This balance and humanity can be further developed, and organizations can build more adaptive, inclusive, and future-proof workplaces that sustain organizational performance in our increasingly digital society.

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