THE INTERSECTION OF E-HRM AND TALENT: A SYSTEMATIC REVIEW OF TRENDS IN E-HRM RESEARCH

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ABSTRACT

With rapid technological advancements, digital platform growth, and globalization, electronic Human Resource Management (e-HRM) has become vital for effective talent management. Research highlights its benefits in improving recruitment, retention, workforce development, and organizational performance. However, literature remains fragmented and methodologically inconsistent, where studies vary in their approaches and findings. This systematic review examines key themes, frameworks, and research gaps in e-HRM studies from leading HR and management journals. Findings reveal a need for stronger theoretical grounding, rigorous empirical work, and broader research contexts, especially cross-cultural and industry-specific studies. We offer future research directions and practical insights for HR professionals to leverage e-HRM in today's digitalized, global talent management landscape.

1. INTRODUCTION

The importance of people and technology has become a fundamental predictor to overcome different obstacles and keep organizations afloat (Myllymäki, 2021). The main goal of Human Resource Management (HRM) can thus be defined as enabling the organization to achieve organizational objectives through the proper utilization of its Human Resources (HR). HRM is a strategic approach in the provision of workforce in an organization. This approach is expected to encourage people in the organization to help achieve the organizational goals, hence the acquisition of a competitive advantage in the market (Martini et al., 2021). Over the last few years, there has been a revolution in managing HR that has been made possible by new technologies. Namely, the 'delivery' of HR practices and functions has been enlarged and enabled by using information technology (Al-Harazneh & Sila, 2021; Nankervis & Cameron, 2023). When information technologies are integrated with HRM, it is called e-HRM (De Alwis et al., 2022). Businesses are pressured to optimize HRM operations amid challenges like maintaining productivity and high employee turnover. In turn, attention has been paid to the use of HR technology, otherwise known as e-HRM, as the suitable solution to the mentioned challenges (Rana & Kaur, 2024). e-HRM is expected to enhance the efficiency of HR service delivery and transform the HR function from an administrative role into a strategic partner within the organization (William & Singh, 2023). e-HRM helps HR departments to be more effective in collecting, processing, and improving the workflow and information of the workforce. It also allows for the delegation of numerous routine administrative and compliance tasks that have historically been managed manually by corporate HR departments, thereby fostering improved planning and supporting practitioners in their collaborative execution of HR activities (Nasar et al., 2021).

e-HRM is characterized as a collection of configurations involving computer hardware, software, and electronic networking resources that facilitate both intended and actual HRM activities (Strohmeier & Kabst, 2014). This is achieved through the coordination and control of data capture both at individual and collective levels, as well as the communication and creation of information within and across the boundaries of organizations (Myllymäki et al., 2021). Despite the consistent documentation of favorable results associated with e-HRM (Nasar et al., 2021; Martini et al., 2021; Martínez-Morán et al., 2024), organizations remain insufficiently aware of the essential elements that contribute to either the success or the failure of e-HRM initiatives (William & Singh, 2023). The field of e-HRM has evolved significantly, driven by technological advancements and the objective of enhancing workflow within organizational HR departments (Francis et al., 2014; Johnson et al., 2024; AL-Shboul, 2024). Most of the existing e-HRM literature has emphasized the role of e-HRM in talent management from a management perspective, with limited focus on the effects of e-HRM from a talent perspective as employees (Martini et al., 2021; Alam et al., 2022; AL-Shboul, 2024). Recent reviews emphasize this argument, noting that numerous studies have not adequately addressed the potential consequences of e-HRM on talented individuals' experience, performance, engagement, and other psychological attitudes and behaviors, particularly in light of contemporary frameworks that acknowledge the human–technology interplay (AL-Shboul, 2024; Yadav et al., 2024). The socio-material perspective views technology as deeply integrated into working life, necessitating detailed analyses to understand how this technology transforms HR practices and impacts individuals and their work activities (Tansley et al., 2014). There is a lack of sufficient theoretical and empirical literature regarding the impact of e-HRM applications on the workforce, as technological advancements have outpaced the corresponding research efforts (Walkowiak, 2024).

Previous studies have demonstrated the advantages of e-HRM for organizational productivity and strategic planning (Theres & Strohmeier, 2023; Koman et al., 2024). However, there is a necessity for contemporary research that effectively addresses current developments related to these trends at the individual level. The implementation of e-HRM practices across various HR functional areas necessitates an assessment of their impact on talent, including work relations, adaptability, and overall satisfaction derived from interactions with the HR system. This review seeks to address the identified research gap in evaluating e-HRM by offering a comprehensive analysis of e-HRM, particularly those related to talent management. This approach aligns with the increasing demand

in existing literature to enhance our understanding of the complex effects of e-HRM on the talented workforce (Shamaileh et al., 2022). The primary aim of this literature review is to conduct a systematic examination of the concepts of e-HRM associated with talent as they relate to the HRM field. The analysis reveals that these topics present numerous opportunities for scholarly inquiry and contribute academic value in three distinct ways: Firstly, the study synthesizes and evaluates existing research, providing scholars with a comprehensive resource to access and comprehend the literature on e-HRM related to talent published to date in HRM and management journals, thereby serving as a reference guide to the current state of knowledge in the domain. Secondly, by highlighting the extant literature, we identify areas of neglect and pinpoint existing gaps. Lastly, this paper presents various prospective research directions within the realm of e-HRM pertaining to talent management. This paper is structured as follows: the upcoming section presents the methodology, followed by the analysis and findings, discussion, future research direction, and lastly the limitations and conclusion.

Research Question

What are the prevailing themes in e-HRM literature, and how do these studies explore the role of e-HRM in enhancing talent?

2. METHODOLOGY

A systematic literature review (SLR) is defined as a methodical investigation of existing publications that synthesizes the published data through a structured approach (Tranfield et al., 2003). A SLR is critical for researchers as it effectively identifies gaps in previous scholarly works (Shamseer et al., 2015). Nonetheless, prior to undertaking an SLR, it is crucial to establish a review procedure. This methodological framework facilitates the anticipation of potential challenges, mitigates arbitrary decision-making regarding inclusion and exclusion criteria, and reduces redundant efforts (Shamseer et al., 2015). In accordance with this, the present study utilized the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) declaration as its review protocol. The PRISMA protocol ensures that this review is transparent and reproducible for other researchers (Mahine et al., 2024). Moreover, this SLR is inspired by the work of Manoharan & Singal (2017), where the methodological framework employed in this

study comprised six distinct steps: identification of the time horizon, selection of databases, selection of journals, selection of articles, identification of articles, and subsequent analyses.

Step 1: Time Horizon

The temporal scope of the analysis covered two past decades, 20 years, from 2004 to early 2024. The year 2004 was chosen as the starting point for this analysis due to the evolution of the e-HRM concept in the last two decades alongside the significant proliferation of related scholarly work during this period (Bondarouk et al., 2017). Examining this period elucidated the evolution of e-HRM and its capacity to transform organizational systems and HR. This timeframe comprises a broad spectrum, including early adoption and recent breakthroughs in e-HRM, reflecting trends and the connection of fundamental e-HRM concepts with workforce and organization during the past two decades.

Step 2: Database Selection

The formulation of the search strategy commenced with an analysis of relevant data sources. Chadegani et al. (2013) have recognized Web of Science, ProQuest, Emerald, and Wiley as exhaustive scientific databases. Consequently, they were selected to ensure extensive access to academic and conference publications. In this paper, a comprehensive search strategy is implemented to identify research suitable for systematic review, utilizing these prominent electronic databases recognized for their peer-reviewed publications.

Step 3: Selection of Journals

The realm of e-HRM has garnered significant attention from researchers, resulting in an increased volume of publications across a wide array of journals. However, the primary challenge resides in ensuring that the chosen publications not only encompass a diverse range of perspectives but also maintain high standards of academic excellence. Numerous systematic literature reviews have underscored the significance of selecting high-ranking journals, as this practice can enhance the quality of the analysis (Kraus et al., 2020). Therefore, it is crucial to improve and enhance the selection process by carefully curating high-quality journals that represent various niches within the HRM discipline, thereby fostering a more comprehensive understanding of the field. To fulfill this aim, we commenced our search by utilizing extensive academic databases to identify

relevant articles. This initial phase was followed by an in-depth assessment of journals recognized for their scholarly contributions to HRM, enabling us to develop a curated list that balances prestigious and pertinent academic outputs. We adopted an expansive yet discerning approach to journal selection, targeting top-rated Q1 and Q2 journals. The list of the selected 35 journals is shown below in table 1.

Table 1: e-HRM Articles related to Talent by Publications

Journal Name	Journal Rating	Number of publications	Journal Name	Journal Rating	Number of Publications	Journal Name	Journal Rating	Number of Publications
International Journal of Human Resource Management	Q1	10	International Journal of Manpower	Q1	8	Employee Relations	Q1	7
Asia Pacific Journal of Human Resources	Q2	4	International Journal of Data and Network Science	Q2	5	International Journal of Organizational Analysis	Q2	4
Benchmarking	Q1	1	Journal of Tourism Futures.	Q1	1	Asia Pacific Business Review	Q2	2
Personnel Review	Q1	3	Human Resource Management Journal	Q1	3	Cogent Business and Management	Q2	2
Business Process Management Journal	Q1	1	Management Decision	Q1	1	Frontiers in Psychology	Q1	1
Canadian Journal of Administrative Sciences	Q2	2	Management Research Review	Q1	1	Human Resource Management	Q1	3
Communications of the Association for Information Systems	Q2	1	PLoS ONE	Q1	1	Sustainability	Q1	3
African Journal of Economic and Management Studies	Q2	3	Problems and Perspectives in Management	Q2	1	Intelligent Systems in Accounting, Finance and Management	Q2	1
Journal of Strategic Information Systems	Q1	1	International Journal of Human Capital and Information Technology Professionals.	Q2	2	Electronic Journal of Information Systems in Developing Countries	Q2	1
Human Resource Management Review	Q1	2	Journal of Electronic Commerce Research	Q1	2	Administrative Sciences	Q2	1
Systems	Q2	1	Journal of Global Information Management	Q2	1	Economies	Q2	1
Journal of Global Information Management	Q2	1	Journal of Organizational Effectiveness	Q2	1			

Step 4: Article Selection

Given that the focus of this literature analysis is on e-HRM associated with talent, broad terms such as 'e-HRM' and 'E-HRM' were initially utilized to ensure comprehensive coverage of relevant articles. Additionally, specific search terms including 'e-HRM practices' e-HRM outcomes,' 'electronic human resource management,' 'digital human resource management,''talent' 'talent management,' and 'e-HRM implementation,' 'consequences,' 'talent attitudes,' 'psychological attitude,' 'behaviour' were employed for keyword searches. The search results

were refined using Boolean operators such as AND and OR to facilitate a thorough exploration of the relevant literature.

The studies included in this review were selected after a systematic and structured screening protocol followed PRISMA protocol. We initiated the searching with the keyword "e-HRM" and obtained 70,653 records from the identified databases. For improved search precision and consistency with the study's aim, we added related keywords specific to talent to the search string, thus reducing the search to 2,017 studies that looked at the intersection of digital HRM and talent management. Following the removal of duplicates, 1,283 unique records were then put through to title and abstract screening. At the end of this step, the criteria of inclusion and exclusion were set in advance. Studies that examined e-HRM practices specifically and the impact on talent-related aspects of this area, either at organizational or individual levels, were kept. We excluded articles that did not focus on digital HRM and talent, or focused only on administrative HRIS functions lacking strategic relevance. After this

process, 313 articles were selected for full text review. Further exclusion criteria imposed upon non–peer-reviewed publications, inaccessible full-text articles, conference abstracts with insufficient empirical explanation, and studies with conceptual or methodological inconsistencies were considered for eligibility. Then, a structured analytical coding process was used to codify the remaining articles. Each study was systematically coded according to their thematic categories, research design, methodological approach, as well as key dimensions of e-HRM and talent management studies. This coding process ensured uniformity in organizing each of the published documents, decreased subjectivity, and was also consistent with our study's analytic framework. The final sample comprised 84 peer-reviewed empirical articles included in the systematic review and synthesis, utilizing these stringent screening and coding methods. This round of reduction and coding procedures facilitated methodological transparency and the inclusion of highly relevant and academically rigorous studies that were relevant for the study design (Figure 1).

Table 2: Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion criteria
Studies reflecting the technological advancements in HRM	**Any** conference papers, and other documents that do not adhere to the methodological standards for empirical research were excluded.
Articles published in peer-reviewed journals classified as a high-ranking Q1or Q2 were evaluated, ensuring that the selected research is pertinent and of superior quality.	Articles that explore HRM without specifically addressing e-HRM.
The studies include data on the specific e-HRM and talent.	
The study concentrated on studies conducted between 2004 and 2024.	Any article that is not in English has been excluded.
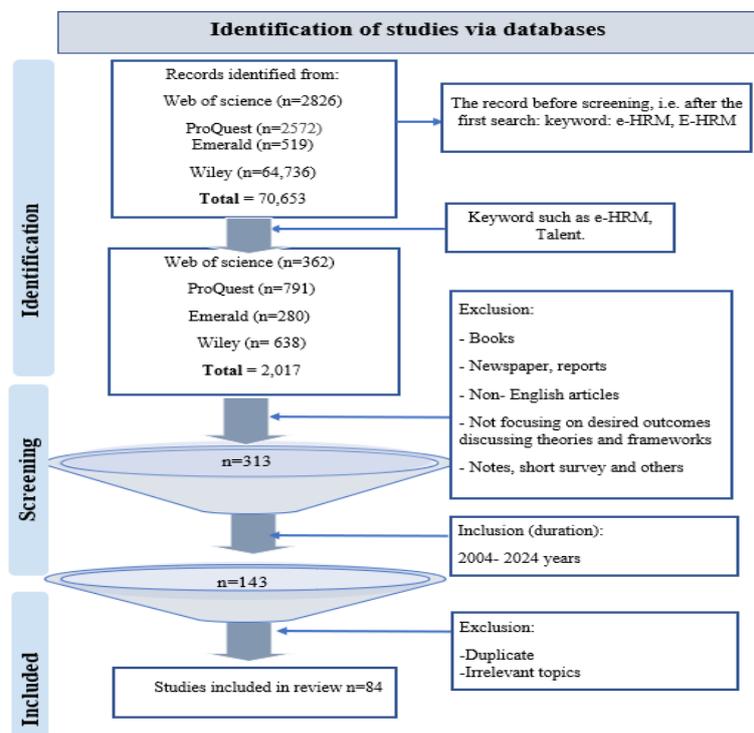
Step 5: Article Classification

To systematically examine the articles and address the review's objectives, the selected articles were organized according to their level of analysis. Of the 84 articles, 32 focused on the individual level (e.g., individual perceptions and e-HRM adoption, job satisfaction, and technology acceptance models), while 52 were categorized at the organizational level (e.g., e-HR efficiency, talent management practices, HR digital transformation, performance outcomes, and HR process digitalization). We drew insights at the human, organizational, and strategic levels from this classification. Papers primarily focused on broader e-HRM implications beyond the organization such as digital transformation and HR analytics, were classified under the organizational level, even when they also addressed strategic considerations.

Step 6: Analysis of Article Classification

The objective of the final step was to gain a comprehensive understanding of the evolution of e-HRM research within the HRM field. Consistent with previous literature reviews (refer to Wirtky et al., 2016; Bondarouk et al., 2017), the following subtopics were identified: (1) various subject themes, (2) publication year, and (3) concerning the theories and frameworks utilized in e-HRM research was incorporated, as it is posited that a theoretical foundation is essential for comprehending the topics of e-HRM and its relationship with talent. (4) methodological nature of the research. Furthermore, a (5) region context.

The initial step involved categorizing the articles that explore the e-HRM themes focusing on how these studies explore the role of e-HRM in enhancing talent. We noted the construct of e-HRM has yet to be fully defined, and themes within these fields have continued to evolve (Myllymäki, 2021). Consequently, in addition to the traditional themes associated with e-HRM along with talent, we sought to identify recurring themes. This process culminated in the identification of 19 themes related to HRM along with talent. Themes that were infrequently published (e.g., only once) were amalgamated with others, resulting in a consolidation of 4 themes.

Moreover, we categorized the articles pertaining to e-HRM according to geographical regions, such as Eastern Asia, Asia, North America, and Europe. Given the global dispersion of the research studies, we reported the findings separately to accurately capture the country contexts, thereby allowing us to discern where and in which contexts e-HRM has garnered scholarly attention, as well as identify existing research gaps. Furthermore, we classified the articles according to their methodological nature, grouping them into categories such as quantitative, qualitative, literature review or mixed methods. In the final step, the articles were organized based on the theories and frameworks employed. In addition to the analyses, descriptive information, including the year of publication and the name of the journal disseminating the article, was incorporated. This comprehensive analysis subsequently serves as a foundation for discussing future research implications.

3. ANALYSIS AND FINDINGS

3.1. What types of e-HRM Themes, particularly those related to Talent have been Researched?

The present systematic review employed descriptive analysis to summarize the key findings of included studies. The analysis involved data extraction and tabulating the data using a standardized form that captured key study characteristics, including author names, publication year, study design, number of participants, aim, any specific implication, results, and conclusion. Any notable trends or patterns in the data were highlighted to provide a clear and better understanding of the overall evidence base. The initial coding process produced 19 fine-grained themes that reflected diverse aspects of the e-HRM and talent landscape, such as digital recruitment; AI-enabled selection; virtual training; talent analytics; employee experience; engagement; performance monitoring; data privacy; algorithmic bias; digital skills development; and organizational readiness. The axial coding of these themes was performed on conceptual similarity, theoretical alignment, and level of analysis, which revealed that they clustered naturally into four broader thematic domains. Recruitment, development, analytics, and talent processes themes were distilled into Transforming Talent Management Through e-HRM Systems. Individual-level reactions including employee experience, engagement, perceived fairness, and interactions with digital tools were integrated into e-HRM Practices and Individual Interaction. Themes relating to organizational outcomes, performance effects, and strategic value were consolidated into Outcomes of e-HRM and Organizational Performance. Finally, Benefits and Challenges of e-HRM Adoption and Implementation were shaped by

themes around technological constraints, privacy, bias, digital readiness, and implementation issues. This multi-stage consolidation ensured that the final four themes were theoretically coherent, analytically robust, and congruent with the goals of the review. Figure 2 shows the distribution of the e-HRM themes evident in the 84 selected articles.

The analysis revealed the key themes that present numerous opportunities for scholarly inquiry and contribute academic value. We identified areas of neglect and pinpoint existing gaps in various research directions within the realm of e-HRM pertaining to talent management.
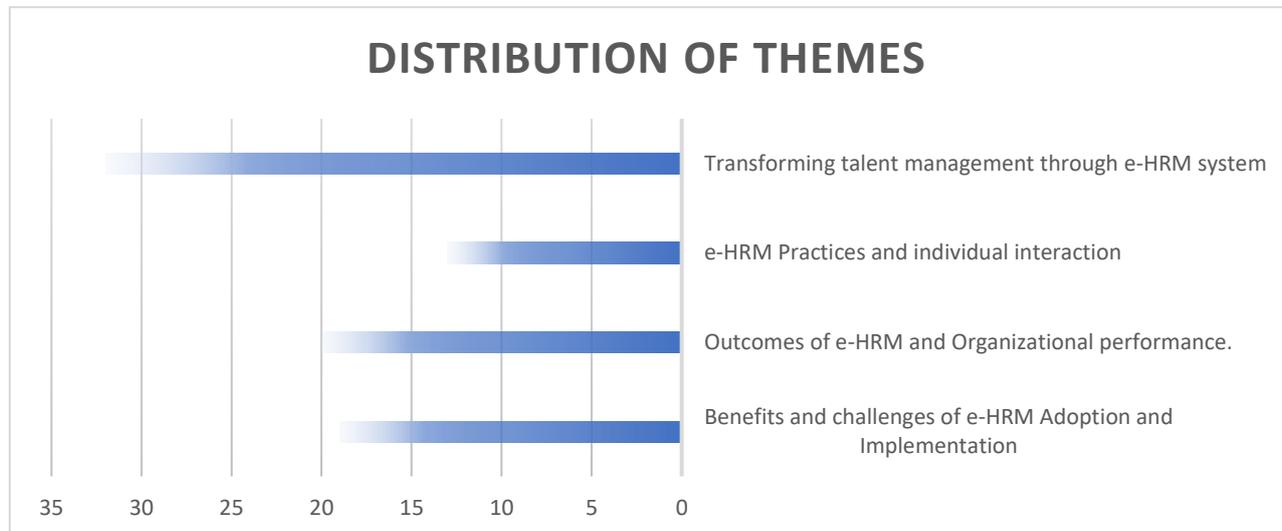

Figure 2: Distribution of Studies by e-HRM Themes and Categories.

3.1.1. Transforming Talent Management through e-HRM System

The evolution of e-HRM has significantly transformed the manner in which organizations manage talent in the digital era (Wiblen, 2016). e-HRM functions as a vital instrument in attracting, retaining, and developing talent, while simultaneously promoting organizational efficiency and innovation (Wiblen et al., 2010). Through digital management systems, organizations make e-HRM possible to facilitate simplified HR practices that enhance employee dedication and operational success (Wiblen et al., 2010; Wiblen, 2016). Nyathi (2024) studied perceived organizational politics between e-HRM and employee performance. The evidence reveals e-HRM functions as fundamental to talent development because it delivers digital platforms that assist employees both effectively and efficiently. It assists talent in advancing their careers and enhancing their competencies by providing seamless access to integrated digital tools, training resources, data-driven performance feedback and continuous learning resources (Nyathi. 2024; Martínez-Morán at al., 2021; Martínez-Morán at al., 2024).

Corporate support for e-HRM system implementations generates substantial performance improvements and organizational commitment enhancement, which establishes e-HRM

implementation as a key tool for talent development. Furthermore, Fekadu and Walia (2024) studied the effects that relational e-HRM functionalities have on attracting new talent throughout their research. Relational e-HRM practices that shape strong employer brands allow organizations to recruit top-level candidates from competitive talent pools. Also, Alqarni (2023) evaluated how e-HRM supports sustainable talent management through his study on sustainable talent. Research findings demonstrate that e-HRM leads to enhanced organizational agility together with innovation and a better competitive position. Heritable capabilities enable e-HRM systems to strengthen sustainable talent management by integrating HR strategy with organizational innovation, thereby maintaining talent practices in alignment with extended organizational goals (Talukdar et al., 2022).

Organizations integrating e-HRM systems modified their work-related interactions with staff, thus modifying how employees think and behave psychologically and behaviorally (Dries, 2013; Shamaileh et al., 2022). The research by Shamaileh et al. (2022) examined the strategic aspects of e-HRM affecting talent management through psychological analysis. The study indicated that e-HRM practices bring strategic success to organizations through the retention of talent and employee commitment creation. The smooth adoption of strategic e-HRM

approaches impacts worker psychological reaction to role performance because these practices fulfill their growth needs and career expectations (Yadav et al., 2024).

Organizations need to understand talents' attitudes and behaviors because the extensive implementation of e-HRM requires a strong alignment between digital HR processes and talent needs. (Strohmeier et al. 2009). Rogozińska et al. (2022) demonstrate that psychological contracts significantly affect employee performance; thus, organizations must actively manage these implicit agreements and their impact on employee development. This relationship among psychological contracts and talent outcomes highlights a potential gap, necessitating that organizations deliberately invest in relational dynamics that fulfill individual contractual expectations and foster meaningful connections to satisfy talents' psychological and attitudinal needs (Bissola and Imperatori et al., 2013; Johnson et al., 2020).

3.1.2. e-HRM Practices and Individual Interaction

According to Almaaitah et al. (2024), employee performance is affected by e-HRM implementation because engagement acts as a mediator between e-HRM and performance. Technological HRM implementation drives employee commitment, which leads organizations to use strategies establishing beneficial employee conduct for high performance.

Alshibly & Alzubi (2022), alongside Almaaitah et al., (2024), provide additional evidence through their results, which show that e-HRM systems improve job satisfaction, which subsequently connects e-HRM to organizational commitment. According to their findings, e-HRM needs to be viewed as both a strategic tool for human capital management and employee satisfaction improvement within organizations.

Multiple research established that workplace engagement functions as a controlling variable that connects e-HRM to performance outcomes. An organization needs to integrate technology into HRM practices and secure high job satisfaction and employee engagement levels for effective e-HRM systems (Tansley et al., 2014; Alomari et al., 2023; Almaaitah, 2024). e-HRM not only provides strategic benefits but also improves operational efficiency by automating routine HR tasks and streamlining processes, thereby decreasing administrative burdens and facilitating effective organizational management (Aityassine, 2022). While previous research has extensively documented the operational

and strategic benefits of e-HRM, there remains a notable gap in understanding its psychological dimensions, particularly in relation to individual interaction. Existing studies tend to focus on efficiency, cost-effectiveness, and decision-making improvements (Parry & Tyson, 2011; Heikkilä et al., 2017; Strohmeier, 2020), yet less attention has been given to how individuals perceive, adapt to, and emotionally engage with e-HRM systems. For instance, aspects such as trust in the e-HRM systems, perceived fairness, and user satisfaction can significantly influence adoption and sustained use (Bondarouk et al., 2017). Addressing these psychological gaps is vital, as the success of e-HRM ultimately depends not only on its technical capabilities but also on the willingness and comfort of individuals to integrate it into their daily work practices.

Current research in talent management predominantly adopts a managerial (macro-level) perspective, leaving a critical gap in understanding the talent as employees (micro-level) perspective, particularly regarding how e-HRM effect talent-related needs and experiences (Bissola & Imperatori, 2013; Bissola & Imperatori, 2014). Shifting the focus to employees provides deeper insights into actual usage, perception, and behavioral outcomes of e-HRM systems. Understanding how digital HR tools support or hinder talent helps in designing better systems that foster talented individuals. (Obeidat, 2016).

The research findings by Voermans & van Veldhoven (2007) demonstrate that employee perception stands as the core focus in e-HRM scholarship because AI-assisted HRM apps boost employee engagement and experience. Likewise, another study demonstrated the favourable correlation between e-HRM utilization and employee outcomes (Nyathi and Kekwaletswe, 2024). The authors assert that there are favorable correlations between e-HRM and human performance and that a proactive strategy mediates the influence of e-HRM on organizational performance, as well as on employee performance and job satisfaction. Martini et al. (2020) found three configurations of social e-HRM, classified into three categories: non-use, relational use, and extended relational use. This emphasizes the necessity of implementing relational e-HRM to improve employee engagement and, subsequently, retention.

3.1.3. Outcomes of e-HRM and Organizational Performance

The analysis of e-HRM changes highlights just how important effectiveness is for organizational

performance over the years. Panayotopoulou et al. (2005) conducted a preliminary literature study on e-HRM systems utilized to study the function of e-HRM systems in assisting in the integration of strategic HR operations in organizations. The findings confirmed that the implementation of e-HRM had a positive influence on decision-making and improved the position of HRM on strategy. Expounding on this, in 2009, Strohmeier and Kabst presented a literature-based analysis of e-HRM adoption in Europe as it relates primarily to organizational consequences. They underlined the role of e-HRM as a means that can contribute to the improvement of quality of service and operational efficiency and stressed its value as an important component of the present-day HRM approaches. To this, Walia and Fekadu (2024) took further the debate by examining other mathematical relations of e-HRM and their relationship with organizational performance. This study stressed that relational e-HRM is a critical enabling resource in enhancing the HR functions. Luján et al. (2007) endeavored to establish a focus on the theme of e-HRM in the Mexican context, analyzing how global applications serve the local requirements. From the findings, it was established that e-HRM offers an organization the ability to achieve flexibility when operating in competitive environments. However, a notable gap in e-HRM research is its predominant focus on the impact of e-HRM at the organizational level from a management perspective, with limited attention to its impact at individual level (Bondarouk et al., 2017; Nyathi, 2023). Furthermore, another key gap in current e-HRM literature is the lack of sector-specific analysis, which limits the ability to provide precise, context-driven strategies for maximizing its impact within different industries (Nyathi, 2024; Martínez-Morán, 2021).

3.1.4. Challenges and Benefits of e-HRM Implementation

This review elucidates the mechanisms, interconnections, and transformative effects of e-HRM as demonstrated in the literature. A study demonstrates that e-HRM eradicates paperwork, allowing HR practitioners to concentrate on the integration and conception of corporate strategy, thus transforming the role of HR within enterprises (Schalk et al., 2013). Rahman et al. identified the primary obstacles impeding e-HRM implementation in Bangladesh's public sector and created a methodology to address these problems for enhanced execution (Rahman et al. 2018). Bissola and Imperatori (2014) indicated that only operational e-HRM practices enhance perceptions of efficiency

without influencing employee commitment, suggesting the need for differentiation in the analysis of diverse e-HRM practices. These studies elucidate the complex positive and negative impacts of e-HRM on organizations and their personnel (Schalk et al., 2013; De Alwis et al., 2022; Shamaileh et al., 2022).

An intriguing domain within the existing literature pertains to the transition from the administrative application of e-HRM to a more strategic involvement in HRM (Strohmeier & Kabst, 2014; Bondarouk et al., 2017). Other researchers elucidate that the implementation of e-HRM enables HRM professionals to transition from traditional transactional roles to more strategic positions, thereby enhancing organizational performance (Parry et al., 2010; Parry et al., 2011). As demonstrated by Zhou et al. (2021) and Obeidat (2016) the integration of digital HRM practices can lead to enhanced firm performance, particularly when aligned with the overarching business strategy.

Martini et al. (2020) clarify additional relationship repercussions such as increased employee engagement, enhanced HR outcomes, and stronger alignment of HR processes with strategic objectives. By investigating several e-HRM configurations particularly relational and extended relational use, and their effects on organizational performance. Emphasizing the necessity of aligning e-HRM with strategic and structural elements.

Parry et al. (2011) contend that e-HRM can centralize HRM functions and enhance their strategic role; however, the authors do not endorse the notion that technology will reduce costs or augment the firm's strategic participation in decision-making. Collectively, these findings delineate several significant implications of e-HRM implementation, highlighting the necessity for a comprehensive examination that extends beyond its operational dimension to also encompass its relational and transformative attributes.

3.2. e-HRM Articles Published by Year

Analyzing publication timelines provides insight into the trends in e-HRM-related research over a span of nearly 20 years. A comparative analysis of e-HRM themes in relation to publication years unveils trends in HRM research. Notably, more than 50% of the articles pertaining to e-HRM have been published within the last five years (see figure 3). This upward trend underscores the increasing relevance of e-HRM concepts in contemporary scholarship, as organizations increasingly implement various e-HRM initiatives to better accommodate and manage a workforce.
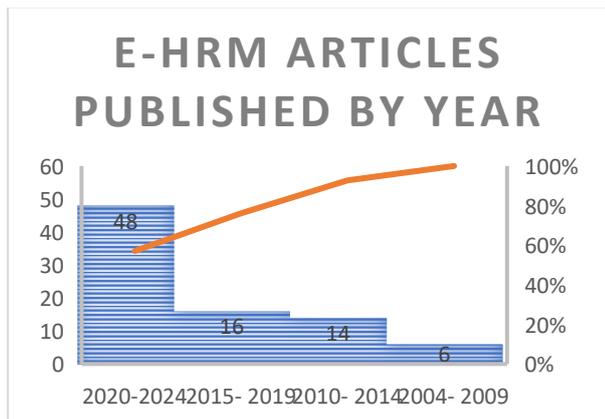
Figure 3: e-HRM Articles Published by Year.

3.3. Theories and Framework used in e-HRM Research

The exploration of theories and frameworks utilized in e-HRM specifically related to talent research is essential for recognizing the distinct theoretical lenses adopted by researchers in their investigations. This is detailed in table 3.

3.4. The Nature of the Research into e-HRM Literature

Understanding the nature of research in the field of e-HRM is essential for grasping the methodologies employed and identifying avenues for the enhancement of existing research techniques (Manoharan and Singal, 2017). Table 4 shows the methodologies employed in the selected studies.

Table 3: e-HRM Articles Related to Talent by Theory

Theory / framework.	Number of publications	Theory / framework.	Number of publications
Resource-Based View Theory	11	Technology Acceptance Model (TAM)	8
Unified Theory of Acceptance and Use of Technology (UTAUT)	6	Social Construction of Technology (SCOT)	4
Social Exchange Theory	5	Dynamic Capability Theory	
Diffusion of Innovation theories	2	Psychological contract theory	3
Institutional Theory	2	Job Demands-Resources Theory	2
Configurational approach to e-HRM	2	Strategic Human Resource Theory	2
Transaction Cost Theory,		Digital Competencies Theory	1
LMX theories	1	Social networking theory and deviant workplace behavior theory	1
Ulrich's HR roles framework	1	Job Characteristics Model (JCM)	1
Technological-Organizational-Environmental (TOE)	1		1
	1		

Table 4: e-HRM Articles Related to Talent by Nature of Research

Articles by nature of research	Number of publications
Quantitative study	54
Qualitative study	14
Case study	6
Mixed-methods	3
Literature review	7

3.5. e-HRM Articles by Region of Study

Figure 4 delineates the geographical context of studies pertaining to e-HRM. Among the 84 studies reviewed, the chart provides a comprehensive overview of the distribution of publications across various regions and countries to monitor the progress of research contexts in various geographical areas.
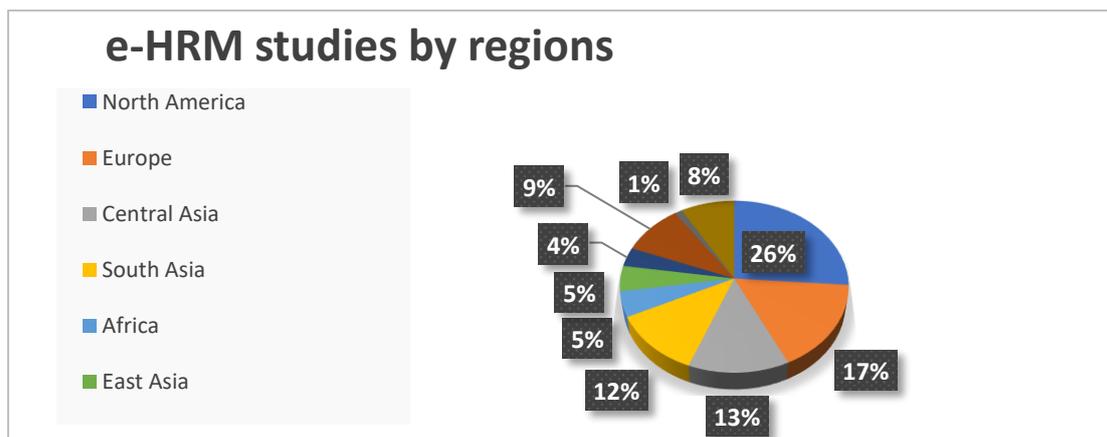

Figure 4: Distribution of Studies Across Different Regions.

4. DISCUSSION

This systematic literature review underscores the strategic importance of e-HRM in shaping modern talent management by mapping overlapping domains and identifying unexplored intersections that reveal theoretical and practical gaps (Bissola & Imperatori, 2014; Shamaileh et al., 2022; Fekadu & Walia, 2024).

Scholars have observed that e-HRM has revolutionized how organizations attract, develop, and retain talent, with digital enablers such as AI, big data, predictive analytics, and IoT frameworks enhancing efficiency, personalization, and evidence-based HR decision-making (Wirtky et al., 2016; Martínez-Morán, 2021; Gupta et al., 2022; Nasar et al., 2020; Parry & Marler, 2015; Shamaileh et al., 2022). Beyond its operational policies and functions, relational e-HRM tools foster communication, engagement, and job satisfaction, which often mediate the relationship between e-HR practices and organizational performance, while also contributing to employee well-being and resilience (Bissola & Imperatori, 2014; Marler et al., 2016; Alomari, 2023; Martínez-Morán, 2021; Alshibly & Alzubi, 2022). Yet, the degree of success depends on contextual and cultural factors, highlighting the need for regional and cross-cultural research (Nyathi, 2023; Nyathi, 2024; Fekadu & Walia, 2024). Despite these advances, gaps regarding the long-term effects of relational e-HRM, its role in shaping talent as employee attitudes and perceptions, and the integration of advanced technologies into sustainable talent management practices are still evident.

Furthermore, while retention has been a dominant focus, research has neglected the intention to stay, a leading indicator of turnover that provides proactive insights into employee commitment (Espina-Romero et al., 2024; Zhou & Zou, 2023). Altogether, this SLR contributes by positioning e-HRM as not only a driver of operational efficiency but also a strategic enabler of innovative and sustainable talent management, while identifying the need for deeper research into relational, future-oriented and cultural dimensions that can enhance talent engagement, organizational resilience, and long-term talent continuity.

5. FUTURE RESEARCH DIRECTIONS

The findings indicate that most research in e-HRM has mainly focused on talent management from a managerial and organizational perspective, emphasizing efficiency and strategic goals. However, there is a significant gap in exploring the interaction between talent, experience, and engagement with e-HRM at the individual level, highlighting the need for more employee-centered research (Johnson et al., 2020; Alam et al., 2022; Shamaileh et al., 2022; Ruël and Bondarouk, 2012). Consequently, future investigations should prioritize the examination of talent from the employees' perspective, focusing on their needs and psychological dispositions. Such an approach is essential for cultivating positive behaviors and enhancing employee loyalty, which, in turn, will contribute to successful performance at both individual and organizational levels. Based on these findings, subsequent recommendations are as follows:

5.1. e-HRM and a Talented Individual's Perspective

The concept of e-HRM is primarily regarded as an antecedent, with limited studies offering alternative viewpoints, and its implications are predominantly observed at the organizational level more than the individual level. A substantial segment of the existing literature has directed its attention toward evaluating the impact of e-HRM on talent management from a management perspective. (Shamaileh et al., 2022; Sivathanu and Pillai, 2020).

This systematic review highlights several significant shortcomings in the literature about the effects of e-HRM on talents' attitudes and behaviors. A significant number of these advancements, including the research by Obeidat (2016), solely examine the organizational outcomes, the efficacy of HRM, and the expectations regarding organizational performance, neglecting the influence of e-HRM on employee personality. Likewise, Bondarouk and Ruël (2013) acknowledge that e-HRM aims to enhance efficiency; yet, its impact on employee competency remains an unverified assertion. This highlights the necessity for research that specifically examines these characteristics and analyzes the influence of e-HRM on individual employee experiences in relation to these dimensions.

Furthermore, while it was revealed that e-HRM induces transformational change, such as the centralization of HR departments (Parry et al., 2011), there is a lack of information about the impact of these transformations on individuals (Zhao and Yixuan, 2018). While e-HRM enhances efficiency, nevertheless, research does not address the extent of pleasure or engagement resulting from this method (Myllymäki et al., 2021; Zhou et al., 2020; Ruël and Bondarouk, 2012). Therefore, the existing literature on e-HRM has largely focused on examining its role in talent management from a managerial perspective, while neglecting to investigate its impact on talent as employees. Future endeavors in e-HRM should

evaluate their effects on talents' HRM experiences and perceptions, emphasizing a shift in the e-HRM and talent management discourse from the employer to a focus on employees (Voermans and van Veldhoven, 2007; Wickramasinghe, 2010; Walkowiak, 2024).

5.2. Relational e- HRM in Shaping Talent's Psyche and Behavior

The existing literature concerning e-HRM as a precursor for enhancing the psychological attitudes talent indicates significant gaps and recommends avenues for future investigation (Sivathanu and Pillai, 2020). Research underscores the influence of e-HRM on shaping employee attitudes (Wiblen, 2016; Yadav et al., 2024). For example, Liu and Song (2022) investigated the application of AI-driven affective computing in conjunction with charismatic leadership to predict and improve employee satisfaction, trust, and commitment, urging further exploration into the utilization of AI to augment psychological engagement. Boselie and Meijerink (2020) analyzed the correlation between intended e-HRM objectives and actual results, advocating for future efforts to enhance IT infrastructure and HR policy alignment to adequately address psychological and organizational requirements. Another study emphasized the transformative capabilities of e-HRM systems in internal staffing processes and recommended further studies on digital talent marketplaces and their influence on employee motivation (Rogiers et al., 2020). Moreover, Alam et al. (2021) employed the Unified Theory of Acceptance and Use of Technology model (UTAUT) to investigate talent acquisition, uncovering the significance of performance expectancy and social influence in the adoption of e-HRM tools to foster employee psychological well-being. Furthermore, Talukdar and Ganguly (2022) assessed the beneficial impacts of e-HRM on HR service delivery alongside the adverse effects of diminished socialization, proposing future research aimed at reconciling technological adoption with human-centric HR practices. In this context, another study established a connection between HRM systems and organizational performance through the lens of psychological contracts, highlighting the necessity of meeting employee expectations for the sustainable development of talent (Katou, 2015). Likewise, Nyathi and Kekwaletswe (2023) examined the mediating role of employee outcomes, such as job satisfaction, in the efficacy of e-HRM systems, advocating for a more profound investigation of these interrelationships. Collectively, these studies emphasize the necessity for integrated frameworks

that correlate e-HRM capabilities that motivate psychological engagement and other attitudes. In this context, a comprehensive understanding of the relational aspects of e-HRM can promote and enhance talent perceptions and attitudes.

Numerous studies highlight existing gaps in the understanding of how relational e-HRM influences diverse employee experiences across various industries and cultural contexts (Bissola and Imperatori, 2014). For example, Fekadu and Walia (2024) propose that although relational e-HRM enhances employee performance and service quality, its effects on workforce diversity and inclusion warrant further investigation. Likewise, Martínez-Morán (2021) suggests that the integration of digital tools throughout the employee lifecycle requires a more thorough examination to ascertain how these tools facilitate engagement and sustain long-term talent. Another study identifies the mediating role of job satisfaction in the adoption of e-HRM; however, he advocates for additional research into its psychological impact on employees, especially within hybrid work environments (Nyathi, 2023). Bissola and Imperatori (2014) indicated that only operational e-HRM practices enhance perceptions of efficiency without influencing employee commitment, suggesting the need for differentiation in the analysis of relational e-HRM practices (Bissola and Imperatori, 2013).

5.3. e-HRM and Sustainable Talent

e-HRM promotes sustainable talent management through the utilization of digital technologies that optimize recruitment, development, and retention processes. The significance of e-HRM in advancing sustainability is an increasingly pertinent area of exploration (Bag et al., 2022). e-HRM systems bring sustainable talent management practices by combining technological integration and innovation PCC romotion (Alqarni, 2023). Research based on dynamic capability theory shows that organizations acquire effective methods to fulfill changing market needs and sustain competitive advantage through e-HRM systems (Nyathi, 2024). Organizations need to integrate e-HRM initiatives with their sustainability goals because these objectives create resilient, adaptable workforces, according to this perspective. Employee performance and organizational commitment improve through e-HRM system deployments as described by Nyathi (2024) for effective agility achievement. Martínez-Morán (2021) investigates the digital transformation of talent management processes through e-HRM systems. The study reveals that e-HRM systems integrate digital tools throughout the employee lifecycle,

consequently fostering employee engagement and retention, further underpinning the sustainability of talent by cultivating a stable and committed workforce (Martínez-Morán 2021). The long-term success of any organization depends on e-HRM systems because they enable satisfied employees who remain engaged and receive essential resources that sustain their talent potential (Bag et al., 2022).

The function of e-HRM in talent management has primarily concentrated on the aspects of retention and acquisition. Nonetheless, recent studies indicate the imperative need to assess talent's intention to remain as a unique variable warranting further scholarly inquiry. For instance, Espina-Romero et al. (2024) underscore the significance of digital competencies and HRM digitalization in shaping employees' career commitment, advocating for future investigations into the ways digital HR strategies affect long-term talent retention. In a similar vein, Obeidat (2016) posits that e-HRM substantially enhances HRM effectiveness; however, additional research is essential to understand how these improvements correlate with employees' intentions to stay as a proactive strategy for ensuring sustainable talent rather than merely examining overall retention rates.

6. LIMITATIONS, IMPLICATIONS AND CONCLUSION

Firstly, this systematic review clearly acknowledges that the inclusion criteria focused on high-ranking journal articles, thereby excluding a portion of lower-quality research data and certain forms of grey literature. Secondly, there was a limitation to articles composed in English, indicating that the study omitted work published in other languages. Thirdly, the review focused on empirical research published between 2004 and 2024 and may not capture the entirety of e-HRM development or subsequent changes beyond this time frame. Lastly, akin to all reviews, despite our efforts to search for 'e-HRM and talent' and various related keywords, the choice of these keywords may have been influenced by our own biases, potentially leading to the omission of certain articles. Nevertheless, to the best of our knowledge, we have included the largest number of articles in comparison to any previously published reviews (Bondarouk et al., 2017).

Despite the limitations, this review highlights implications that underscore, Firstly, the necessity of incorporating e-HRM systems into the talent management strategy framework to enhance both administrative efficiency and individual satisfaction. Secondly, although numerous organizations gain advantages from the digital integration of e-HRM, there remains a continual necessity to strategically align these technologies with HR objectives to enhance their effectiveness. Overcoming obstacles like organizational culture and customizing practices to fit local contexts can significantly improve the effectiveness of e-HRM.

Thirdly, Cultural and structural variations exist among sectors, necessitating the adaptation of e-HRM systems to address obstacles in the workplace (Hooi and Lai, 2006). It is essential to persist in evaluating and adjusting the e-HRM systems to achieve the flexibility of work and enhance the satisfaction of talented individuals and organizational needs.

Lastly, it is essential to mitigate the hazards associated with diminished HR socialization, especially if it leads to decreased interaction; fostering a collaborative and relational digital culture will be crucial for realizing the possibilities that e-HRM presents in the future. Research indicates a shift in the roles of HRM professionals from transactional functions to strategic involvement, thereby improving their capacity to cultivate positive relationships with talent (Bissola and Imperatori, 2014; Wiblen, 2016). This review advocates for a more thorough investigation into the ways in which e-HRM practices affect the psychological, attitudinal, and relational aspects of employee engagement, aiming to address current research deficiencies.

To conclude, this systematic research paper emphasizes the multifaceted role of e-HRM in talent management, particularly in enhancing and fostering long-term relations with employees. This suggests that relational aspects of e-HRM cultivate a more sensitive and adaptive workforce. The findings also suggest that there are some significant gaps in the current literature on the studies related to the impact of e-HRM on employee perceptions. In particular, there is a lack of knowledge of how certain e-HRM practices might support or undermine employees' perceptions, psychological attitudes, and behaviors. In this vein, more research is still warranted on those dimensions presented to add to the extant knowledge on the link between e-HRM and talent attitudes and behaviors. This review advocates for a more thorough investigation into the ways in which e-HRM practices affect the psychological, attitudinal, and relational aspects of employee engagement, aiming to address current research deficiencies.

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