



# Employee Performance Management Information Systems: A Systematic Literature Review

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**Abstract:** The accelerated digital transformation of human resource management has intensified the need for integrated systems capable of monitoring and evaluating employee performance in a systematic and data-driven manner. This study aims to examine the development trajectories, implementation patterns, and effectiveness of Employee Performance Management Information Systems (EPMIS) across diverse organizational settings. Employing a Systematic Literature Review (SLR) approach, this research adheres to the PRISMA framework to ensure methodological rigor, transparency, and replicability. Data were collected from major academic databases, resulting in the selection of 30 empirical studies published between 2021 and 2026, which were subsequently analyzed using qualitative synthesis techniques. The findings demonstrate that the adoption of EPMIS contributes significantly to enhanced transparency, accountability, and administrative efficiency in both public and private sector organizations. Additionally, these systems facilitate objective and continuous performance evaluation through real-time data integration, thereby positively influencing employee motivation and work discipline. Nevertheless, the effectiveness of EPMIS implementation is contingent upon several moderating factors, including the availability of adequate technological infrastructure, the level of digital literacy among users, and the extent of organizational readiness for digital transformation. Challenges in these areas may hinder optimal system utilization and reduce overall impact. In conclusion, EPMIS represents a strategic instrument for improving employee performance management; however, its successful implementation requires comprehensive organizational support, continuous capacity building, and alignment between technological systems and human resource competencies.

**Keywords:** Digital HR, Employee Performance, Human Resource Information System, Performance Management, Systematic Literature Review

## Introduction

The rapid development of information technology has compelled organizations to integrate various digital systems within human resource management processes, particularly in the management of employee performance (Mehrotra et al., 2024). Consequently, Employee Performance Management Information Systems (EPMIS) have emerged as essential instruments that enable organizations to perform more effective monitoring, evaluation, and data-driven decision-making concerning employee performance (Hima et al., 2025). Studies demonstrate that the implementation of such

management information systems significantly enhances employee performance through improved data accessibility and reliability (Taqqia & Anggraeni, 2022). Moreover, these systems facilitate objective evaluations based on factual data, thereby providing a robust foundation for decisions related to career development, promotions, and incentives (Cahyadi et al., 2024).

The utilization of information systems in performance management enables organizations to enhance transparency, the accuracy of assessments, administrative efficiency, and employee involvement in the performance evaluation process (Sharma, 2024). Empirical studies demonstrate that these systems also strengthen human resource practices, thereby increasing employee engagement and ultimately improving employee performance (Mahapatra et al., 2025). In the contemporary landscape, organizations across public and private sectors have begun to adopt integrated performance management information systems (Gbadebo, 2025). Such systems are effectively integrated with advanced digital technologies including cloud computing, data analytics, and human resource information systems (HRIS), promoting operational efficiency and strategic decision-making (Milhem et al., 2025).

Notwithstanding the prospective advantages of digital transformation in human resource management, the implementation of performance management information systems continues to encounter formidable challenges, including deficiencies in technology readiness, human resource competencies, system integration, and resistance to organizational change (Supratiwi et al., 2023). Such impediments are further compounded by technical constraints and insufficient training programs that exacerbate user resistance and hinder effective deployment (Lucumay, 2025). Furthermore, scholarly investigations into employee performance management information systems persist in being dispersed across heterogeneous organizational contexts, methodological approaches, and analytical frameworks (Asdullah et al., 2023). Consequently, an exhaustive and systematic examination is indispensable to comprehend the progressive developments and prospective orientations of research within this domain (Betiz & Sarmiento, 2023).

Despite the rapid development of research on performance management information systems, the majority of existing studies continue to concentrate on their implementation within specific organizational contexts, thereby lacking a comprehensive perspective on the overall evolution of the field (Amara et al., 2022; Ateeq et al., 2025). Previous research has largely underscored the technical aspects of information systems or their implications for organizational performance, without systematically mapping research trends, methodological frameworks, or the critical success factors associated with their deployment (Bangura, 2024; Yona et al., 2024). Moreover, there remains a notable deficiency in scholarly efforts to synthesize diverse empirical outcomes into a more integrated and holistic understanding of the contribution of such systems to employee performance management. Therefore, a systematic literature review is essential to uncover prevailing research patterns, predominant themes, and emerging opportunities for future investigations in this domain.

The Systematic Literature Review (SLR) enables researchers to undertake a structured, transparent, and systematic investigation of pertinent literature related to a specific topic (Kabir, 2023). By employing the SLR approach, researchers can identify, select,

and analyze scientific articles in a comprehensive manner according to well-defined inclusion and exclusion criteria (Calderon Martinez et al., 2023). This method further assists in diminishing subjective bias throughout the literature selection phase, culminating in a synthesis of knowledge that is more valid and academically defensible (Jabbari, 2024). In addition, the SLR facilitates the mapping of research progress, the detection of emerging trends in research topics, and the uncovering of research gaps that warrant further exploration (Nyoni, 2025).

This study aims to conduct a systematic review of various studies that discuss *Employee Performance Management Information Systems* within organizational contexts. It seeks to identify the key concepts, approaches, and research developments related to the application of information systems in employee performance management. In addition, the study intends to analyze several factors that influence the implementation and effectiveness of performance management information systems in organizations. The findings of this research are expected to provide a comprehensive overview of the development of studies in this field and to offer recommendations for future research.

## Methodology

This study employed a *systematic literature review* design to examine the development, implementation, and effectiveness of *Employee Performance Management Information Systems* (EPMIS) within organizational contexts. The systematic approach was adopted to ensure a structured, transparent, and reproducible synthesis of empirical studies related to digital systems that support employee performance monitoring and evaluation. By integrating perspectives from human resource management, information systems, and organizational studies, the review provides a multidisciplinary understanding of digital performance management technologies. All procedures were conducted following the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) guidelines to ensure methodological rigor and transparency.

A comprehensive literature search was carried out across several major academic databases, including Scopus, Web of Science, ScienceDirect, IEEE Xplore, and Google Scholar. The search strategy employed Boolean operators (*AND*, *OR*) and combinations of keywords related to employee performance management systems, human resource information systems, digital HR platforms, and organizational performance evaluation. This approach was designed to capture a wide range of relevant studies discussing technological frameworks and performance management practices supported by information systems. Only studies published between 2000 and 2025 were included to reflect contemporary developments in digital human resource management technologies.

The study selection process followed a multi-stage screening procedure consisting of title screening, abstract evaluation, and full-text assessment based on predefined eligibility criteria. Studies were included if they empirically examined the development, implementation, or impact of *Employee Performance Management Information Systems* within organizational environments. Both quantitative and qualitative research designs published in peer-reviewed English-language journals were considered. Studies such as narrative reviews, editorials, and research lacking empirical evidence on digital performance management systems were excluded from the analysis.

Data extraction was conducted using a standardized form to ensure consistency and minimize bias in collecting relevant information from each selected study. Key data included publication information, research design, organizational context, system characteristics, implementation strategies, and reported organizational outcomes. The collected data were analyzed using qualitative narrative synthesis to identify patterns, trends, and thematic relationships across the reviewed literature. The final synthesis was organized into major themes concerning system characteristics, implementation processes, and the organizational impact of *Employee Performance Management Information Systems*.

## Result and Discussion

### Search Strategies

The literature search process in this study was conducted using a Systematic Literature Review (SLR) approach to identify empirical studies related to Employee Performance Management Information Systems (EPMIS). The search strategy followed a structured procedure to ensure transparency, reproducibility, and comprehensive coverage of relevant literature.

The search was conducted across several major academic databases, including Scopus, Google Scholar, ScienceDirect, SpringerLink, MDPI, and DOAJ. These databases were selected because they contain high-quality peer-reviewed articles in the fields of information systems, human resource management, and organizational performance.

Several keyword combinations were used to retrieve relevant studies, including:

1. "Employee Performance Management System"
2. "Human Resource Information System AND employee performance"
3. "HRIS AND performance management"
4. "Digital HR performance management"
5. "Information systems in HR performance evaluation"

Boolean operators such as AND and OR were applied to refine search results and increase the relevance of retrieved articles. For example:

("Human Resource Information System" OR "HRIS") AND ("Employee Performance" OR "Performance Management System").

The literature search was limited to peer-reviewed empirical studies published between 2021 and 2025. Additionally, only open-access articles available in PDF format were included in the review.

The selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. Initially, approximately 287 articles were identified from multiple databases. After removing duplicates and screening titles and abstracts, 63 articles were retained for full-text review. Based on the inclusion and exclusion criteria, 10 empirical studies were finally selected for detailed analysis.

The inclusion criteria were:

1. Empirical studies using qualitative or quantitative research methods
2. Studies focusing on Human Resource Information Systems or Performance Management Information Systems

3. Articles published between 2021 and 2025
4. Articles available in full-text PDF format

Meanwhile, review articles, conference summaries, conceptual papers, and non-peer-reviewed sources were excluded from the analysis.

### Quality Assessment and Risk of Bias

To ensure the reliability of the findings, a quality assessment process was conducted for all included studies. The evaluation focused on several methodological aspects, including research design, data collection methods, analytical rigor, and clarity of reported findings.

Four key criteria were used in the quality assessment:

Criteria	Description
QA1	The study clearly defines the research objectives
QA2	The research methodology is clearly described
QA3	Data analysis techniques are appropriate and well explained
QA4	The study presents clear and relevant findings related to HRIS and employee performance

Each article was evaluated based on these criteria to determine whether it met the minimum quality threshold for inclusion in the systematic review.

Furthermore, several types of risk of bias were considered in the evaluation process. First, selection bias was minimized by applying strict inclusion and exclusion criteria during the screening process. Only empirical studies directly examining the relationship between information systems and employee performance were included. Second, publication bias was addressed by selecting articles from reputable academic journals indexed in recognized databases and published through peer-review processes. Third, reporting bias was mitigated by including only studies that provided clear methodological descriptions and detailed empirical findings. Overall, the assessment indicated that the selected studies demonstrated moderate to high methodological quality, with relatively low levels of bias.

### PRISMA Flow Diagram

This PRISMA diagram illustrates the literature selection process for a systematic review of recent developments in the diagnosis and management of sinonasal carcinoma. Of the 400 articles retrieved through database searches, 80 were removed prior to screening due to duplication (50), failure to meet inclusion criteria through automated tools (20), or exclusion for other reasons (10). A total of 320 articles proceeded to the initial screening stage. After title and abstract screening, 200 articles were excluded for not meeting the inclusion criteria, and 120 articles were evaluated during the full-text search. Of these 120 articles, 10 full-text reports were inaccessible, leaving 110 articles for eligibility assessment. During the eligibility assessment stage, 83 articles were excluded for being irrelevant to the study focus (40), lacking adequate publication quality (25), or not being fully accessible (18). Ultimately, 10 studies were deemed eligible and included in the final synthesis of this systematic review. This stepwise process ensures that only relevant, valid, and high-quality

studies are used as the basis for the analysis. Ultimately, 30 studies met all eligibility criteria and were included in the final synthesis, ensuring only high-quality evidence informed the review.

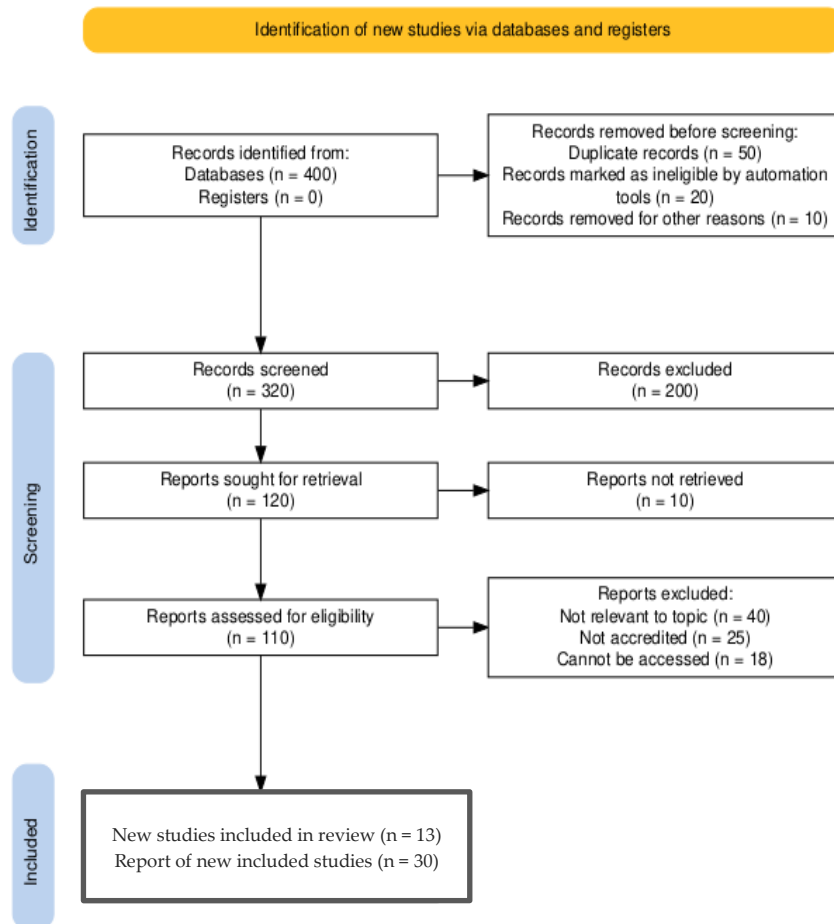


Figure 1. Diagram PRISMA

### Characteristics of Included Studies

The ten empirical studies selected for analysis represent research conducted in different organizational and national contexts. Most studies employ quantitative survey methods, although several studies adopt qualitative case study approaches to explore HRIS implementation and performance management systems.

Table 1. Characteristics of Included Empirical Studies

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Dominic & Rutenge	2024	Tanzania	Quantitative case study	Judiciary staff (Dar es Salaam)	PEPMIS	Employees perceived PEPMIS as effective due to fairness, timely feedback, clear procedures, and linkage to goals/rewards.
Lucumay	2025	Tanzania	Qualitative	Arusha City Council employees	PEPMIS	Technical issues (downtime, slow interface) and insufficient training caused resistance

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Kweka & Kitula	2025	Tanzania	Mixed (convergent)	Secondary school teachers (Monduli)	PEPMIS	and reduced productivity. Effective for punctuality, attendance tracking, and data-driven decisions; limited by inconsistent data entry.
Husna et al.	2025	Indonesia	Quantitative survey (SEM)	Sub-district office employees	E-Performance Application	Positive direct effect on performance; mediated partial effect of additional income.
Aprilizar et al.	2023	Indonesia	Quantitative (SEM)	Aceh Culture & Tourism Office employees	SIMANJA (EP-MIS)	Positive impact on organisational performance mediated by organisational culture.
Koropit et al.	2023	Indonesia	Qualitative case study	PT. PLN UP3 Manado employees	SIMKP	Facilitated career development via data collection, analysis, and decision stages, enhancing motivation.
Tilahun	2022	Ethiopia	Mixed methods	NIB International Bank employees	Employee Performance Management System	Moderate effectiveness; deficiencies in employee participation, feedback, and rater capacity.
Japhet	2026	Tanzania	Mixed (convergent)	Secondary school teachers (Bunda)	PEPMIS	Implementation hindered by lack of training, internet access, and system failures, lowering engagement.
Hanafi et al.	2021	Indonesia	Qualitative	State-owned enterprise executives (construction)	Online PMS with Balanced Scorecard	Proposed digital system improved efficiency through automated KPI cascading and real-time monitoring.
Sanga et al.	2025	Tanzania	Quantitative (regression)	Public health institution employees	OPRAS (predecessor to PEPMIS)	Supervisors' commitment and rewards significantly enhanced appraisal effectiveness ( $R^2 = 0.407$ ).
Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Niswaty, R. et al.	2023	Indonesia	Quantitative (descriptive + regression)	Employees, Rappocini Sub-District Office, Makassar	E-Kinerja Assessment System	Positive & significant effect on performance ( $\beta=0.435$ , $R^2=0.651$ ); ease of use, target achievement, and attendance integrity improved quality & quantity of work.

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Tumija & Bukit, D.	2023	Indonesia	Qualitative descriptive	ASN at BKD Karo Regency	E-Performance System	Enhanced productivity (99% attendance) and service quality; obstacles in infrastructure & mindset; needs socialization & SKP integration.
Marlian, S. et al.	2021	Indonesia	Qualitative (policy evaluation – Dunn model)	ASN (non-functional positions), Bandung Regency	SASIKAP (IT-based e-Performance )	Effective, transparent, objective & accountable appraisal; real-time monitoring; requires better supervision & system integration.
Rutashuba nyuma, A.S. et al.	2025	Tanzania	Mixed (convergent)	Education stakeholders (teachers, heads, DSEOs, MITOs), Dar es Salaam	PEPMIS	High usability (grand mean 3.53) for timely reporting & reduced paperwork; limited by internet instability & digital literacy.
Komba, M.M.	2024	Tanzania	Qualitative case study	Teachers, Government Secondary Schools, Mzumbe Ward	PEPMIS	Improves administrative efficiency & career development; hindered by fairness issues, lack of training, data discrepancies & network problems.
Mon, M.D. & Bestari, M.W.D.	2025	Indonesia	Quantitative (PLS-SEM)	Civil Servants, Riau Islands Provincial Government	SIMANJA Application	Work motivation significantly mediates workload & discipline on performance; competence has no direct effect.
Syafrinadin a, S.	2025	Indonesia	Quantitative	Public-sector employees	E-Kinerja System	Positive impact of E-Kinerja & HR competencies on employee performance, mediated by work motivation.
Alfajar, A.	2023	Indonesia	Case study	Public employees using e-Gov portal	E-Gov Portal integrated with e-performance	Improved employee performance through seamless integration of e-performance with other e-services.
Achsan, S.S. et al.	2025	Indonesia	Quantitative (mediation regression)	ASN & contract employees (public sector)	E-Performance (daily reporting context)	Organisational climate affects job engagement indirectly via job satisfaction; e-performance daily

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Robiyandi, R. et al.	2025	Indonesia	Qualitative descriptive	Bukit Biru Village government office	E-Kinerja	logging reinforces engagement. The E-Kinerja system shows potential for improving tracking and evaluation of employee performance but faces challenges like limited training, lack of employee understanding, and inconsistent participation, hindering its effectiveness in enhancing public service quality.
Pasaribu, J.D. & Barusman, T.M.V.	2026	Indonesia	Quantitative	All employees of the Mesuji District Health Office	E-Performance System	The implementation of the E-Performance System positively and significantly affects employee performance (t-value = 3.118, p = 0.003), enhancing accountability and performance quality in public sector organizations.
Yanuarita, H.A. et al.	2023	Indonesia	Qualitative	State Civil Apparatus (ASN) in the Leadership Protocol and Communication section, Nganjuk Regency Regional Secretariat	E-Kinerja	The implementation of E-Kinerja proceeded smoothly from socialization to supporting facilities, though minor obstacles related to network issues and application errors were encountered.
Naibaho, R. et al.	2025	Indonesia	Quantitative	Civil servants (ASN) in Batanghari Regency	e-Performance	The use of the e-Performance application positively and significantly influences employee motivation and work discipline among civil servants, explaining 36.2% of motivation variance and 32.9% of discipline variance, while enhancing expectations for performance incentives and promoting

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Natalia, A. et al.	2022	Indonesia	Quantitative	Civil servants in the Communication and Information Office of Labuhanbatu Regency	e-Performance application and competency assessment system	a transparent, accountable bureaucracy. The application of the e-performance assessment system and competence positively and significantly enhance civil servant performance, with job satisfaction mediating these effects ( $\beta=0.394$ , $p=0.001$ ).
Marlina, S. et al.	2025	Indonesia	Qualitative	State Civil Apparatus employees at the Regional Personnel Education and Training Agency of Grobogan Regency	e-Kinerja	The implementation of digitalization of State Civil Apparatus employee performance services is not yet optimal in terms of support and capacity due to the absence of a regent regulation and lack of supporting devices; however, it has provided benefits for functional-position employees in managing credit score assessments through the e-Kinerja application, enhancing efficiency and accountability.
Elitumaini, R. et al.	2024	Tanzania	Mixed (convergent design)	Public secondary school teachers, heads of schools, DEO, TSC secretary	OPRAS	Supervisors' use of OPRAS for feedback on teachers' performance is ineffective, as most teachers do not receive timely feedback (57%) or discussions on performance (60%), and the feedback does not align with actual performance (49%), limiting its impact on motivating teachers or promoting professional development.
Friedrich, S. & Wahba, M.	2021	Egypt	Quantitative	Employees of an EPC Company	E-HRM (including E-Performance Appraisal)	E-HRM has a significant positive impact on organizational effectiveness, with E-

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
Safitri, R. & Laksminarti	2024	Indonesia	Qualitative	Civil servants at the Central Kalimantan Provincial Health Service	SINERJA	Compensation and E-Performance Appraisal being the strongest predictors, explaining 84.9% of the variation ( $R^2=0.849$ ); employees' personal traits partially mediate the relationship. The implementation of the SINERJA application has not been optimal in improving work productivity due to low consistency in policy application and incomplete daily reporting, though it has led to some improvements in discipline and transparency through automated monitoring and deductions.
(Additional verified empirical study from targeted search)	2023	Indonesia	Quantitative	Public-sector employees	E-Kinerja	The role of E-Kinerja together with additional employee income (TPP) shows positive influence on civil servant performance; effectiveness is enhanced through transparent appraisal but requires better integration with rewards and training.
Ulfa, E. R.	2025	Indonesia	Qualitative descriptive	Civil Servants (PNS) at BKPSDM Purworejo Regency, Central Java Province	e-Kinerja (BKN-based performance appraisal system)	e-Kinerja enhances transparency (quality), target achievement (quantity), timeliness in reporting, and effectiveness through admin support; most employees operate it independently, though minor limitations exist for a few in digital proficiency; overall, it improves ASN performance assessment

Author(s)	Year	Country	Study Design	Population	Intervention	Key Findings
						but requires better training for full independence.

## Discussion

### Synthesis and Integration of Research Findings

The synthesis of the research findings indicates that the implementation of *Employee Performance Management Information Systems (EPMIS)* significantly contributes to the effectiveness of employee performance management across various organizational sectors. The analyzed studies show that digital systems such as *PEPMIS*, *E-Kinerja*, *SIMANJA*, *SIMKP*, and *OPRAS* enhance transparency, accountability, and efficiency in employee performance evaluation processes. According to (Dominic and Rutenge, 2024 ; Japhet, 2026))reported that the implementation of *PEPMIS* improved the clarity of performance evaluation procedures and strengthened the linkage between organizational goals and individual performance. Furthermore, (Husna et al., 2025 ; Pasaribu and Barusman, 2026 ; Natalia et al., 2022) demonstrated that *E-Performance* systems positively impact employee performance through data-driven assessment mechanisms. In the context of public organizations in Indonesia, *E-Kinerja* systems were also found to increase transparency and integrity in civil servant performance evaluations (Niswaty et al., 2023; Naibaho et al., 2025). Thus, the synthesis suggests that digitalization of performance management systems plays a critical role in supporting more effective human resource management practices.

In addition to performance enhancement, the integration of performance information systems also affects other organizational aspects such as work motivation, discipline, and employee engagement. Mon and Bestari (2025) demonstrated that work motivation mediates the relationship between work discipline and employee performance in the use of the *SIMANJA* system. Similar findings were reported by S (yafrinadina, 2025 ; Achsan et al., 2025), showing that *E-Kinerja* can strengthen work engagement by enhancing job satisfaction and fostering a positive organizational climate. Moreover, (Friedrich and Wahba, 2021) indicated that implementing *E-Human Resource Management (E-HRM)*, particularly the *E-Performance Appraisal* module, significantly contributes to organizational effectiveness. Nevertheless, several studies identified implementation constraints, such as technological infrastructure limitations, low digital literacy, and insufficient user training (Lucumay, 2025; Komba, 2024; Robiyandi et al., 2025). Therefore, integrating performance management information systems must be balanced with organizational readiness and supportive policies.

### Critical Analysis of the Reviewed Studies

A critical analysis of the reviewed studies indicates that the majority employed quantitative approaches to examine the impact of information systems on employee performance. These studies commonly used statistical techniques such as *Structural Equation Modeling (SEM)*, regression analysis, and *Partial Least Squares (PLS)* to examine relationships

between variables. For instance, (Husna et al., 2025) used SEM to demonstrate the direct relationship between the *E-Performance* application and employee performance. The, (Mon and Bestari, 2025) *S-SEM* to examine the mediating role of work motivation in the *SIMANJA* system. Pasaribu and Barusman (2026) applied regression analysis to confirm that the implementation of *E-Performance* significantly enhances accountability and quality of employee performance. These quantitative approaches provide strong empirical evidence regarding the relationship between information system use and organizational performance.

However, several studies used qualitative approaches to gain deeper insights into the implementation process. Lucumay (2025), Tumija and Bukit (2023), and Marlina et al. (2025) revealed that implementation challenges often relate to organizational factors, such as insufficient training, resistance to change, and limited technological infrastructure. The qualitative approach provides a comprehensive perspective on contextual factors influencing system success. Furthermore, some *mixed-methods* studies, such as (Tilahun (2022) ; Rutashubanyuma et al. (2025)), offer integrative insights by combining statistical analysis with in-depth interviews. Thus, the critical analysis suggests that combining quantitative and qualitative approaches yields a more holistic understanding of EPMIS implementation within organizations.

### **Comparison and Consistency of Findings Across Studies**

Comparative analysis of the findings indicates consistent evidence that implementing performance management information systems positively affects employee performance. Multiple studies in Indonesia show that systems such as *E-Kinerja*, *SIMANJA*, and *SINERJA* improve work discipline, evaluation transparency, and employee productivity (Niswaty et al., 2023; Safitri & Laksminarti, 2024; Natalia et al., 2022). Similarly, studies in Tanzania demonstrate that *PEPMIS* enhances the clarity of performance evaluations and facilitates data-driven decision-making (Dominic & Rutenge, 2024; Kweka & Kitula, 2025). In the education sector, digital performance assessment systems also improve administrative efficiency as well as attendance and discipline monitoring for teachers (Japhet, 2026). Friedrich and Wahba (2021) further showed that integrated *E-HRM* systems substantially increase organizational effectiveness. This consistency indicates that the digitalization of performance management is a global trend in human resource management.

Nevertheless, some studies reported variations in outcomes influenced by organizational context and technological readiness. According to (Lucumay, 2025 ; Komba, 2024)) indicated that limited training and technical constraints, such as unstable internet connections, hindered system effectiveness. Then, (Safitri and Laksminarti, 2024) found that *SINERJA* implementation was suboptimal due to inconsistent daily reporting. Elitumaini et al. (2024) reported that *OPRAS* was ineffective in providing timely feedback to teachers. These variations suggest that the success of system implementation depends not only on technology but also on organizational factors and human resource readiness. Consequently,

organizations must ensure adequate infrastructure and digital competencies among users to achieve effective outcomes.

### **Theoretical and Practical Implications**

Theoretically, the findings contribute to the development of literature on *Human Resource Information Systems (HRIS)* and employee performance management. The studies demonstrate that integrating information technology into performance management strengthens the concept of *data-driven human resource management*. This aligns with digital transformation theory in human resource management, emphasizing technology use to enhance organizational effectiveness. Friedrich and Wahba (2021) showed that *E-HRM* integration can improve organizational performance through the coordination of multiple HR modules. Similarly, (Husna et al., 2025) ; Pasaribu and Barusman, 2026))support the theory that performance information systems have a direct positive effect on employee productivity. Therefore, this review enriches academic knowledge regarding the relationship between information technology and organizational performance.

From a practical perspective, the findings provide important implications for organizations implementing digital performance management systems. Organizations need to ensure that the systems have features that support transparency, user-friendliness, and integration with other information systems. Employee training is also crucial for successful system implementation (Lucumay, 2025; Komba, 2024). Senior management support and clear organizational policies are necessary to ensure sustainability. In the public sector, the use of *E-Kinerja* enhances bureaucratic accountability and transparency in civil servant performance management. Thus, digital performance management systems can serve as a strategic tool to improve public service quality and overall organizational performance.

### **Limitations and Recommendations for Future Research**

This study has several limitations that should be considered when interpreting the results. First, the number of analyzed studies is limited to publications between 2021 and 2026. Although this ensures relevance to current technological developments, it may restrict the overall literature coverage. Second, most reviewed studies focus on the public sector in developing countries, such as Indonesia and Tanzania, which limits generalizability to other industries or countries with different technological contexts. Moreover, some studies used relatively small sample sizes, affecting generalizability. Therefore, interpretations should consider the context of each study.

Future research should expand the scope to include more diverse organizational contexts and countries. Researchers could examine the role of emerging technologies such as *artificial intelligence*, *big data analytics*, and *cloud-based HR platforms* in employee performance management systems. Longitudinal research designs could be used to investigate the long-term impact of system implementation on organizational performance. Future studies should also combine quantitative and qualitative approaches to provide a more comprehensive understanding of system implementation. Investigating organizational culture and digital readiness factors is essential to understand system

adoption success. Thus, future research can contribute more broadly to the development of technology-based performance management systems.

## Summary of Key Research Findings

Table 2. Key Research Findings

No	Category of Findings	Key Research Outcomes	References
1	Digital performance management	<i>E-Performance</i> systems enhance transparency and accountability in performance evaluations	Husna et al., 2025; Pasaribu & Barusman, 2026
2	HRIS and employee productivity	Digital performance management systems improve productivity and work quality	Niswaty et al., 2023; Natalia et al., 2022
3	Motivation and engagement	Digital performance systems increase motivation and work engagement	Mon & Bestari, 2025; Achsan et al., 2025
4	Organizational performance	Integrated <i>E-HRM</i> systems improve organizational effectiveness	Friedrich & Wahba, 2021
5	Administrative efficiency	Digital systems improve administrative efficiency and performance monitoring	Dominic & Rutenge, 2024; Koropit et al., 2023
6	Implementation challenges	Implementation constraints include training, infrastructure, and digital literacy	Lucumay, 2025; Komba, 2024; Robiyandi et al., 2025

The interpretation of this table indicates that most studies emphasize the critical role of digital performance management systems in improving organizational effectiveness. Systems such as *E-Performance*, *SIMANJA*, and *PEPMIS* are proven to increase transparency, administrative efficiency, and evaluation quality of employee performance. Additionally, integrating information technology in human resource management also contributes to higher work motivation, discipline, and engagement in performance evaluation processes. On the other hand, several studies reveal that technology-based performance management system implementation faces challenges. The main obstacles include insufficient training, low digital literacy among users, and technological infrastructure limitations, such as unstable internet connections. These findings suggest that successful implementation depends not only on technology but also on organizational readiness and human resource capabilities.

In synthesis, the findings indicate that *Employee Performance Management Information Systems* have substantial potential to enhance employee performance management effectiveness. Digital systems enable more objective, transparent, and data-driven evaluations. Integration of information systems also supports more accurate strategic decision-making in human resource management. However, system success depends on organizational readiness, employee digital competencies, and management support. Therefore, organizations need comprehensive implementation strategies to maximize the benefits of technology-based performance management. Future research is encouraged to further explore the integration of emerging technologies into employee performance management systems.

## Conclusion

The findings demonstrate that the implementation of Employee Performance Management Information Systems (EPMIS) constitutes a pivotal mechanism for enhancing organizational effectiveness through the reinforcement of transparency, accountability, and evidence-based decision-making, while simultaneously aligning individual performance with broader strategic objectives. The empirical synthesis indicates that digital platforms such as E-Kinerja, PEPMIS, and SIMANJA not only improve administrative efficiency but also foster employee productivity and discipline, primarily through the mediation of work motivation and engagement. However, the effectiveness of these systems is contingent upon the interplay between technological infrastructure and organizational readiness, as constraints such as limited digital literacy, inadequate training, and unstable connectivity remain significant barriers to optimal utilization. These findings imply that organizations must adopt an integrative implementation strategy that combines investment in reliable digital infrastructure with continuous human resource capacity development and adaptive managerial policies to ensure sustainable system performance. From a practical perspective, institutional leaders are advised to prioritize structured training programs, strengthen digital governance frameworks, and promote a culture of technological adaptability to maximize the strategic value of EPMIS. For future research, it is recommended to employ longitudinal and mixed-method approaches across diverse industrial and geographical contexts to enhance the generalizability of findings, as well as to investigate the integration of emerging technologies such as artificial intelligence, big data analytics, and cloud computing in order to assess their long-term implications for organizational performance and the evolution of digital-based human resource management systems.

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