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Examining the Effect of E-HRM Tools on Employee Performance: A Case Study of Selected SMEs in Lusaka, Zambia

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Abstract

The adoption of Electronic Human Resource Management (E-HRM) tools has transformed human resource practices globally, offering organizations innovative ways to manage recruitment, training, performance appraisal, and employee services. Small and Medium Enterprises (SMEs) in developing economies, such as Zambia, are increasingly exploring E-HRM systems to improve efficiency and enhance employee performance. Despite this growing interest, there is limited empirical evidence on how these tools impact key performance outcomes in the SME sector. This study examined the effect of E-HRM tools on employee performance in selected SMEs in Lusaka, Zambia. Specifically, it aimed at identifying the types of E-HRM tools adopted by these SMEs, assess their impact on key aspects of employee performance and work quality, and explore how the use of E-HRM tools enhances employee access to HR services that influence overall performance. By addressing these objectives, the study provides empirical evidence on the role of digital HR systems in improving workforce effectiveness in the SME sector. The study embraced a case study design, employing a mixed method approach to gather primary data. Data entry and analysis was done using STATA. Descriptive statistics, including frequencies, percentages, and means, was used to summarize data. Chi-square was used to determine associations between variables. Thematic analysis was used to analyze qualitative data. Findings indicate that online job portals (45%) and company websites (30%) are the most common recruitment tools, while training is increasingly delivered through online courses and Learning Management Systems. Performance

appraisal adoption is mixed, with 35% using online forms and 35% relying on manual methods. E-leave, payroll, and communication systems show partial digital adoption, highlighting areas for improvement. E-HRM tools, particularly training platforms and performance appraisal systems, were reported to improve task efficiency, work accuracy, time management, and overall productivity. Employee self-service (ESS) portals emerged as the primary channel for accessing HR services, facilitating faster leave approvals, payroll access, training resources, and performance feedback. The study concluded that SMEs in Lusaka are increasingly adopting E-HRM tools, particularly for recruitment, training, performance appraisal, and communication, though manual methods remain common for payroll, leave, and appraisal processes. E-training and performance appraisal systems were found to have the greatest impact on employee efficiency, accuracy, productivity, and workload management, while employee self service (ESS) portals enhanced access to HR information, transparency, and responsiveness. To maximize these benefits, SMEs are recommended to invest in integrated E-HRM systems, strengthen digital infrastructure, provide continuous employee training, and promote ESS portal usage. Adoption of cloud-based HR solutions, policy support for digital transformation, regular monitoring of E-HRM effectiveness, collaboration with technology providers, robust data security measures, and fostering a digital-friendly organizational culture are also essential to achieving full digital HR integration and improving overall employee performance.

Keywords: E-HRM, SMEs, Employee Performance, Adoption, Digital Transformation, Efficiency, Employee Self-Service (ESS), Zambia

1. Introduction

1.1 Background

Electronic Human Resource Management (E-HRM) involves using digital tools for HR functions like recruitment, payroll, appraisal, training, and communication (Al-Mahairah, 2022). Employee performance refers to measurable job outcomes, including productivity, task completion, and job satisfaction (Abdelwahed, 2023). Studies indicate that E-HRM adoption improves productivity, training access, and performance feedback (Škudienė, 2020).

In Africa, E-HRM adoption in SMEs is uneven, influenced by cost, digital skills, leadership support, and perceived value (Mohlala, 2024). While adoption can enhance talent access, payroll efficiency, and compliance, barriers like limited IT

infrastructure and low digital literacy persist (Imwiko, 2024). In Zambia, regulatory frameworks encourage proper HR practices and influence E-HRM use, especially in payroll and reporting (Mbambiko, 2024; Kipngetich, 2025). When well implemented, E-HRM reduces administrative time, improves record-keeping, and supports employee development, potentially boosting productivity and retention (Ebere, 2023). For SMEs in Lusaka, benefits include compliance, lower costs, and scalability though poor implementation can increase expenses and cause frustration (Imwiko, 2024). While global evidence links E-HRM to positive outcomes, contextual factors are crucial, and research in Zambia remains focused on large firms, leaving SMEs underexplored.

1.2 Statement of the Problem

Small and medium enterprises (SMEs) form the backbone of Zambia's economy, contributing roughly 70% of GDP and 88% of employment (Kabwe, 2024). However, many SMEs in Lusaka continue to rely on manual or semi-automated HR systems for payroll, appraisals, record-keeping, and training (Bwembya, 2022). Existing research has largely overlooked how digital HR tools are adopted and impact performance in SMEs. This gap hinders both SME efficiency and Zambia's digital transformation agenda (Paliwal, 2025). Policymakers and business owners lack evidence-based guidance for implementing suitable E-HRM systems. Therefore, this study investigates how E-HRM tools affect employee performance in Lusaka's SMEs, offering actionable insights to improve productivity and align HR practices with national development goals.

1.3 Objectives of the Study

1.3.1 General Objectives

To examine the effect of Electronic Human Resource Management (E-HRM) tools on employee performance in selected Small and Medium Enterprises (SMEs) in Lusaka, Zambia.

1.3.2 Specific Objectives

1. To identify the types of Electronic Human Resource Management (E-HRM) tools adopted by selected SMEs in Lusaka
2. To assess the effect of E-HRM tools on key aspects of employee performance on work quality.
3. To examine the relationship between E-HRM tools and Employee performance.

1.4 Research Questions

1. What types of Electronic Human Resource Management (E-HRM) tools are adopted by selected SMEs in Lusaka?
2. How do E-HRM tools affect key aspects of employee performance, particularly work quality?
3. What is the relationship between E-HRM tools and employee performance?

1.5 Conceptual Framework

This study's conceptual framework examines the relationship between E-HRM tools such as e-recruitment, training, appraisal, leave, payroll, and self-service portals and employee performance in Lusaka's SMEs. E-HRM tools serve as the independent variable, while employee performance is the dependent variable. Effective implementation of these tools is expected to improve HR

service delivery, access to information, and task efficiency and quality. However, this relationship is mediated by factors such as ICT infrastructure, user competency, management support, and employee acceptance. Ultimately, the framework posits that enhanced access to HR services through E-HRM tools improves work quality, efficiency, and job satisfaction.

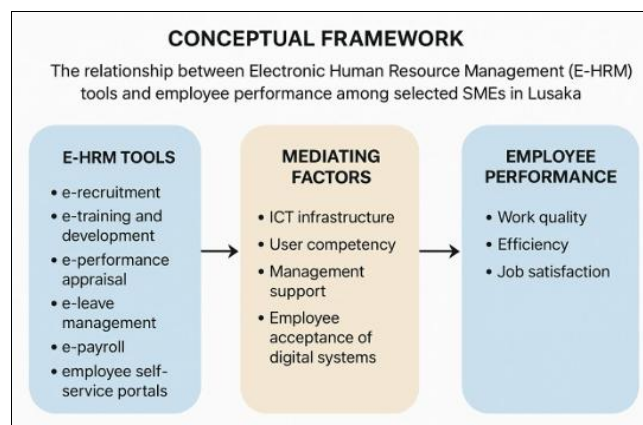


Fig 1: Conceptual framework.

2. Literature Review

2.1 Types of Electronic Human Resource Management (E-HRM) Tools Adopted by SMEs

Electronic Human Resource Management (E-HRM) tools represent a transformative digital approach for Small and Medium Enterprises (SMEs), automating core HR functions to enhance efficiency and strategic capacity (AbdulKareem *et al.*, 2024^[1]; Aboramadan, 2024). Key adopted tools include e-recruitment platforms, such as online job portals and Applicant Tracking Systems (ATS), which streamline talent acquisition by expanding reach and automating candidate screening (Aceto, 2019; Adeola, 2022). Furthermore, e-training and development are facilitated through Learning Management Systems (LMS), providing scalable solutions for skill enhancement (Adjei, 2021; Al Harthy, 2022^[3]), while e-performance appraisal systems digitalize evaluation processes to promote consistency and data-driven feedback (Dahlbom, 2020; Godbless, 2021^[8]). The integration of these tools offers SMEs significant operational and strategic advantages. E-recruitment reduces administrative burdens and cost-per-hire while accessing a wider talent pool (Butt, 2020^[6]; Allaoui, 2019). E-training supports flexible, self-paced learning and allows for the tracking of employee progress (Aboramadan, 2024). Crucially, Employee Self-Service (ESS) portals empower employees by providing direct access to HR services such as leave management, payroll information, and training resources which enhances transparency and reduces clerical workloads for HR staff (Haraldsen, 2024; Holbeche, 2022)^[9, 10]. This automation allows SMEs to reallocate resources from administrative tasks toward strategic human capital development.

However, adoption in SMEs is often partial, with manual methods persisting alongside digital tools, particularly in payroll and appraisal processes. Successful implementation and maximizing benefits require investment in integrated systems, robust digital infrastructure, and continuous user training (Gonzalez, 2020; Griffith, 2019). When effectively deployed, E-HRM tools spanning recruitment, training, performance management, and self-service enable SMEs to

cultivate a more skilled, efficient, and engaged workforce, directly contributing to improved organizational performance and competitiveness (Gričnik, 2024; Katembwe, 2023 ^[11]).

2.2 Effect of E-HRM Tools on Employee Performance and Work Quality

Electronic Human Resource Management (E-HRM) tools significantly influence employee performance and work quality by enhancing operational efficiency and empowering the workforce. These systems streamline core HR functions such as recruitment, performance appraisal, and payroll freeing employees from administrative burdens and allowing them to focus on core responsibilities, thereby directly boosting productivity (Okwang, 2020 ^[15]; Mushumba, 2024). Indirectly, by automating processes, E-HRM improves accuracy and transparency in tasks like leave management and performance evaluation, which builds employee trust, reduces errors, and fosters a sense of fairness, all of which positively impact work quality and morale (Mutemwa, 2023; Mutiarin, 2019).

A critical mechanism through which E-HRM enhances performance is by improving access to HR services and supporting continuous development. Employee Self-Service (ESS) portals provide immediate, autonomous access to information and services, reducing delays and fostering empowerment and accountability (Haraldsen, 2024 ^[9]; Oluwaseyi, 2024). Concurrently, integrated e-learning and performance management platforms enable targeted skill development and provide structured, timely feedback. This facilitates professional growth, aligns individual goals with organizational objectives, and motivates employees to maintain higher standards of performance (Omodan, 2024 ^[17]; Salam, 2024).

In the end, E-HRM tools enable a data-driven approach to human capital management, which strategically sustains performance gains. These systems generate comprehensive analytics on workforce trends, skill gaps, and productivity, allowing managers to make informed, proactive decisions regarding training, workload allocation, and recognition (Sharma, 2023; Samtani, 2022 ^[19]). This strategic insight supports a continuous improvement cycle and fosters a high-performance culture. For Small and Medium Enterprises (SMEs), particularly in developing contexts, adopting such integrated digital systems is crucial for overcoming resource constraints, optimizing workforce effectiveness, and achieving sustainable competitive advantage through a more skilled, engaged, and productive workforce (Subulwa, 2022; Sutrisno, 2023).

2.3 Relationship Between E-HRM Tools and Employee Performance

Electronic Human Resource Management (E-HRM) tools fundamentally enhance employee access to HR services by creating a direct, digital interface for interaction, transforming traditional, intermediary-dependent processes. The deployment of Employee Self-Service (ESS) portals is central to this shift, empowering employees to independently manage routine tasks such as viewing payslips, applying for leave, and enrolling in training which reduces administrative bottlenecks and fosters a sense of autonomy and accountability (Vahdat, 2022 ^[22]; Turnbull, 2020). This digital framework ensures 24/7 accessibility, removing temporal and geographic barriers and providing

equitable service delivery to all employees, including remote or shift-based workers, thereby promoting inclusivity and operational efficiency (Wang, 2020; Twaambo, 2024 ^[21]).

Furthermore, E-HRM systems improve access through the centralization and personalization of HR information. By consolidating policies, records, and resources into a single digital platform, these tools ensure employees can quickly locate accurate, consistent information, enhancing transparency and reducing confusion (AbdulKareem, 2024 ^[1]; Vardarlier, 2020). The systems can be configured to provide role-specific access, delivering relevant dashboards and workflows to managers while offering tailored development resources to individual employees, which streamlines interaction and makes the system more intuitive and effective (Adjei, 2021; Aboramadan, 2024).

Enhanced communication and feedback mechanisms embedded within E-HRM platforms, such as automated notifications and integrated messaging, keep employees informed about request statuses and deadlines, ensuring transparency and timely responses (Adeola, 2022; Valcik, 2021). Ultimately, by democratizing access to services and development opportunities like e-learning modules E-HRM tools empower employees, strengthen organizational trust, and allow HR departments to shift focus from transactional tasks to strategic workforce initiatives, thereby boosting overall satisfaction and productivity (Al Harthy, 2022 ^[3]; Vrontis, 2023).

2.4 Personal Critique

The literature predominantly highlights operational benefits but neglects key implementation barriers for SMEs, such as technical capacity and user resistance. Studies on e-recruitment emphasize efficiency but overlook challenges in data interpretation and preserving qualitative judgment in hiring. E-training research assumes high digital literacy, lacking evidence on its direct impact on work outcomes. Discussions of performance and administrative tools overlook cultural readiness and potential negative perceptions like surveillance. Overall, a critical gap exists between the assumed benefits and the practical, human-centered challenges of E-HRM adoption in resource-constrained contexts.

2.5 Establishment of Research Gaps

Major gaps include a lack of empirical evidence directly linking E-HRM tools to measurable employee performance outcomes in SMEs. The literature overlooks critical contextual barriers like infrastructure limitations and digital literacy in developing economies. There is insufficient research on the human dimensions of adoption, such as employee trust and behavioral responses. Finally, studies lack analysis on system integration, comparative sectoral/regional adoption, and long-term sustainability of E-HRM investments in SMEs.

3. Methods and Procedures

3.1 Research Design

This study adopted a concurrent mixed-methods design within an exploratory case study framework. This approach facilitated the simultaneous collection and integration of quantitative and qualitative data to provide a comprehensive understanding of E-HRM adoption and its impact. The case study design allowed for an in-depth

examination of the phenomenon within its real-world context in Lusaka's SME sector.

3.2 Target Population

The target population for this study consisted of HR personnel, managers, and employees working within selected Small and Medium Enterprises (SMEs) in Lusaka that utilize or are in the process of adopting Electronic Human Resource Management tools.

3.3 Sample Size

The total sample size for this study was 120 participants, comprising approximately 20 HR/managers and 100 employees from various SMEs. This size was deemed sufficient to provide meaningful quantitative trends and rich qualitative insights.

3.4 Sampling Technique

A purposive sampling technique was used to select SMEs known to be using E-HRM tools. Subsequently, a stratified random sampling method was employed within each selected organization to ensure representation from both management/HR and general employee strata.

3.5 Data Collection Methods

Two primary methods were used:

Cross-Sectional Survey: To collect standardized quantitative data and some open-ended qualitative responses from a broad sample.

Semi-Structured Interviews: To collect in-depth qualitative data from key informants (e.g., HR managers, IT staff).

3.6 Instruments for Data Collection

The main instruments were:

- A **Structured Questionnaire** for employees.
- A **Semi-Structured Interview Guide** for managers/HR personnel.

3.7 The Questionnaire

A self-administered questionnaire was developed with four sections: (A) Demographic Data, (B) Types and Frequency of E-HRM Tool Use, (C) Impact on Employee Performance (using a 5-point Likert scale), and (D) Open-ended questions on perceived benefits and challenges. It was designed for clarity and pilot-tested for reliability.

3.8 Participant Observation

Where granted permission, limited non-participant observation was conducted in the workplace to note the practical use of E-HRM systems (e.g., ESS portals, digital check-ins), providing contextual data to corroborate self-reported survey and interview findings.

3.9 The Human Instrument (Researcher)

As the primary human instrument for qualitative data collection, the researcher conducted all interviews and led the analysis. Reflexivity was maintained through a research journal to bracket preconceptions and ensure the findings emerged from the data.

3.10 Procedure for Data Collection

1. Ethical clearance and introductory letters were obtained.
2. Selected SMEs were contacted for permission.

3. Questionnaires were distributed electronically and in-person to employee participants.
4. Scheduled face-to-face and virtual interviews were conducted with key informants.
5. Collected data was securely stored and anonymized.

3.11 Document Review

Available organizational documents were reviewed where possible, such as E-HRM system manuals, internal policy circulars on digital tool usage, and aggregated, non-confidential system usage reports to triangulate and validate primary data.

3.12 Quantitative Data Analysis Techniques

Quantitative data from questionnaires were analyzed using STATA software. Descriptive statistics (frequencies, percentages, means, standard deviations) summarized the data. Inferential statistics, specifically Chi-Square tests, were used to examine associations between categorical variables (e.g., type of E-HRM tool used and reported performance outcomes).

3.13 Qualitative Data Analysis Technique

Qualitative data from interviews and open-ended questions were analyzed using Thematic Analysis following Braun and Clarke's (2006) six-phase approach: familiarization, generating initial codes, searching for themes, reviewing themes, defining/naming themes, and producing the report. This identified patterns in perceptions, experiences, and challenges.

4. Presentation of Findings

4.1 Result Presentation

4.2 Types of E-HRM Tools Adopted by Selected SMEs in Lusaka

The study found that 45% of SMEs in Lusaka primarily use online job portals like LinkedIn and Jobzilla for recruitment, followed by 30% using company website applications. Only 15% utilize specialized recruitment software, while 10% do not use any electronic recruitment tools. This indicates that online platforms are the dominant method for reaching potential candidates.

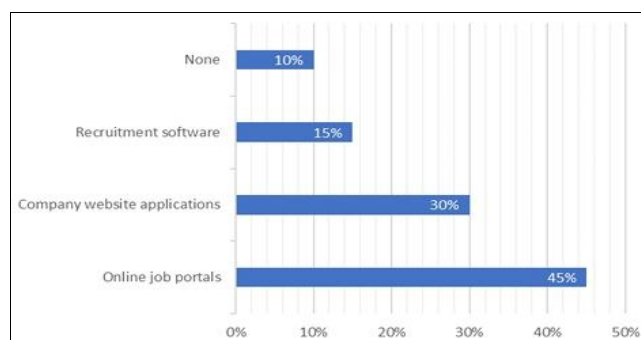


Fig 4.2.1: E-recruitment tools used

Half of the organizations (50%) offer online courses and webinars as part of their employee training programs, with 25% using Learning Management Systems (LMS). Mobile-based training apps are less common (10%), while 15% still rely on offline computer-based modules. This shows a gradual shift toward online learning tools in SMEs.

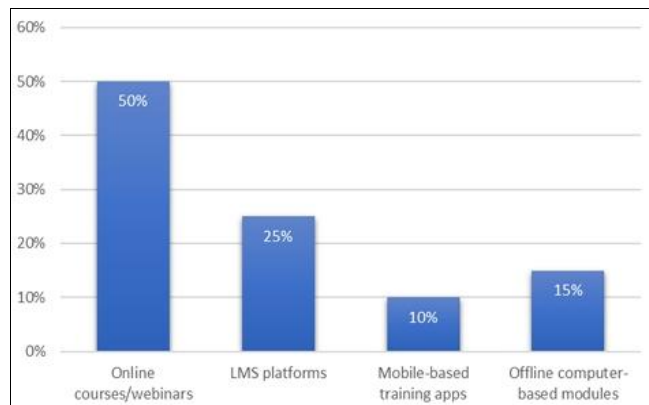


Fig 4.2.2: E-training tools provided

35% of SMEs use online appraisal forms, 25% have implemented performance management software, while only 5% employ automated 360-degree feedback systems. Another 35% continue with manual or paper-based appraisals. This indicates a mixed adoption, with digital appraisals growing but traditional methods still prevalent.

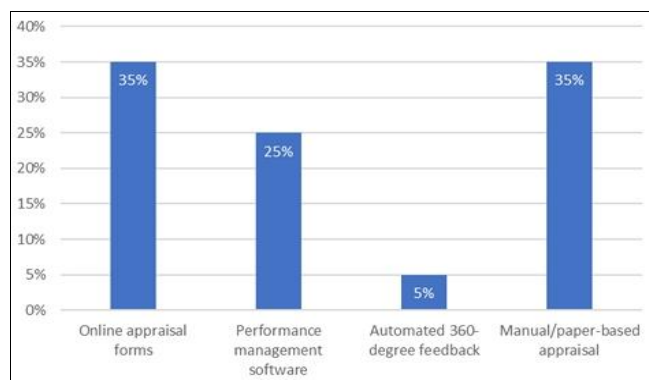


Fig 4.2.3: E-performance appraisal methods

A majority of SMEs (40%) use web-based leave portals, 20% utilize mobile leave applications, and 15% rely on integrated HR management software. However, 25% of organizations still do not have any electronic leave system, highlighting an area for improvement.

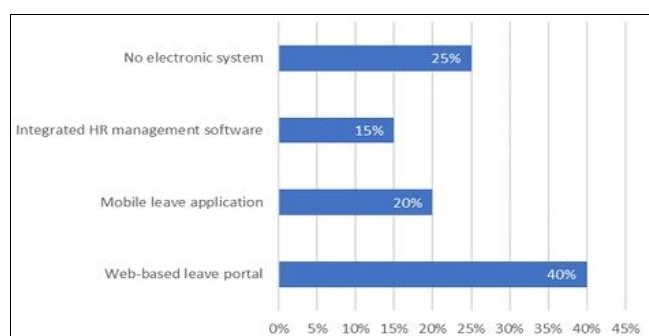


Fig 4.2.4: E-leave management systems

Payroll is processed through a variety of methods: 30% use payroll software, 20% outsource electronically, 35% still calculate manually, and 15% rely on spreadsheets. This shows that electronic payroll adoption is ongoing, but traditional methods remain widely used.

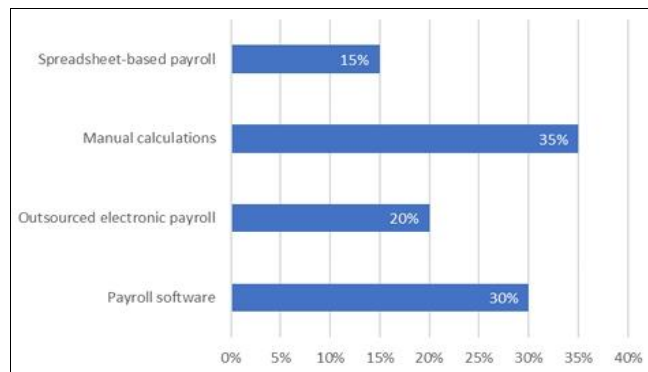


Fig 4.2.5: Payroll processing methods

Email is the most commonly used tool (45%), followed by messaging apps like Slack and Teams (30%), intranet platforms (15%), and 10% do not use any electronic communication tools. This shows SMEs rely heavily on standard communication platforms for HR purposes.

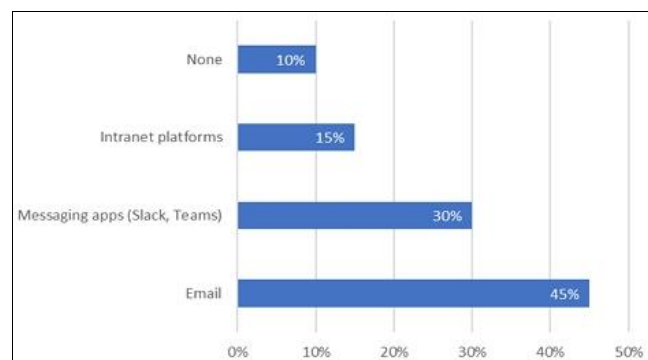


Fig 4.2.6: E-communication tools for HR purposes

Applicant tracking systems are used by 35% of organizations, while 25% track recruitment via spreadsheets or email follow-ups. Another 15% do not use any formal electronic tracking method. The results indicate moderate adoption of formal recruitment tracking systems.

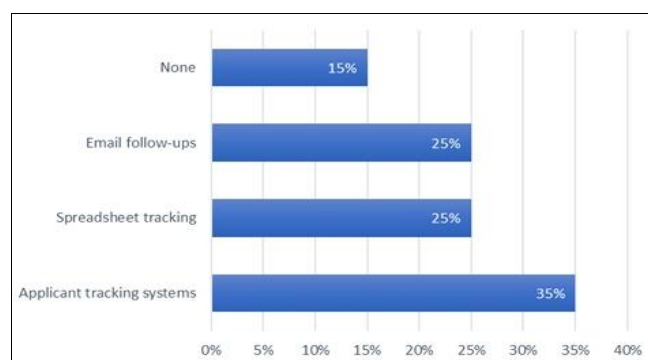


Fig 4.2.7: Tools for recruitment tracking

Online survey software is used by 30% of SMEs, 25% use HR software, 20% collect feedback via email forms, and 25% still rely on paper-based methods. This reflects a transition toward digital feedback tools, although paper-based approaches remain significant.

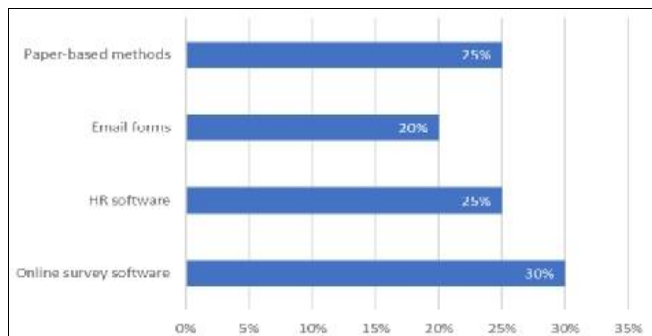


Fig 4.2.8: Platforms for employee feedback collection

The Chi-square test was conducted to examine the relationship between the type of E recruitment tools used and the recruitment tracking tools employed by SMEs in Lusaka. The results of the Pearson Chi-square test ($\chi^2 = 96.667$, $df = 6$, $p < 0.001$) and the Likelihood Ratio test ($\chi^2 = 112.288$, $df = 6$, $p < 0.001$) indicate a statistically significant association between the two variables. This suggests that the choice of e recruitment tools is strongly related to the recruitment tracking method used by the organization. In other words, SMEs that use certain recruitment platforms, such as online job portals or company website applications, tend to adopt compatible tracking methods, such as applicant tracking systems or spreadsheet tracking.

Table 4.2.1: Association Between E-Recruitment Tools and Recruitment Tracking Methods Among SMEs in Lusaka

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	96.667 ^a	6	.000
Likelihood Ratio	112.288	6	.000
Linear-by-Linear Association	1.820	1	.177
N of Valid Cases	100		

4.3 Effect of E-HRM Tools on Employee Performance and Work Quality

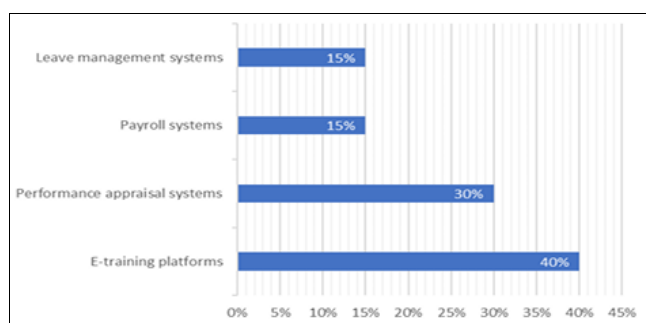


Fig 4.3.1: E-HRM tool with greatest impact on task completion efficiency

The study found that 40% of SMEs reported E-training platforms as the tool with the greatest impact on task completion efficiency, followed by performance appraisal systems at 30%. Payroll and leave management systems were less influential. This suggests that training and performance monitoring directly enhance employee efficiency.

Employee self-service portals were considered the most effective for workload management by 45% of respondents. Scheduling software and E-leave management systems were

used by smaller proportions, indicating that giving employees control over their HR-related tasks significantly supports workload management.

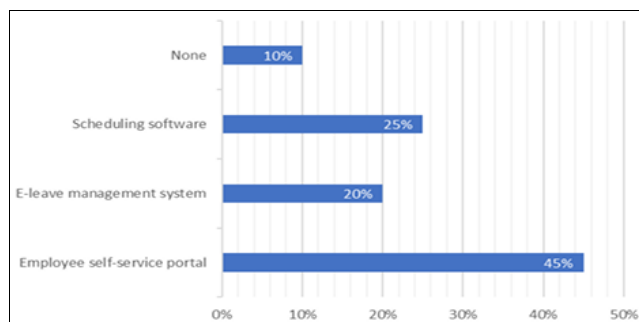


Fig 4.3.2: Tool helping employees manage workload effectively

40% of respondents indicated that E-HRM tools often improve the accuracy of work output, while 25% reported that they always improve accuracy. This demonstrates that E-HRM tools contribute consistently to reducing mistakes and improving the quality of work.

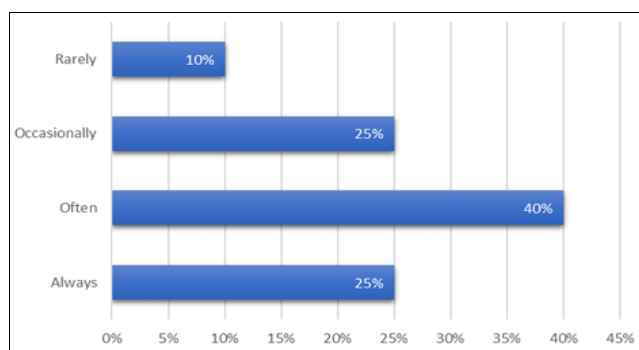


Fig 4.3.3: Frequency of improving accuracy in work output

E-training and development tools were identified by 40% of respondents as the most effective in reducing errors, followed by automated performance appraisals at 30%. Payroll and e-recruitment systems had a smaller impact, showing that continuous learning and structured performance evaluation are key for minimizing errors.

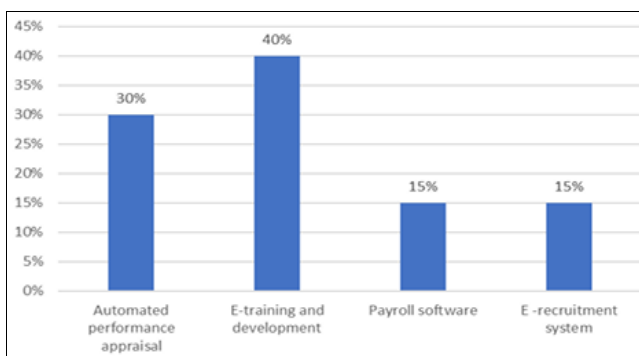


Fig 4.3.4: E-HRM tool most affecting error reduction in tasks

E-leave and attendance management systems were highlighted by 35% of respondents as improving time management the most, with project management and employee self-service portals following at 25% each. This indicates that systems that monitor attendance and leave directly influence how employees allocate their time.

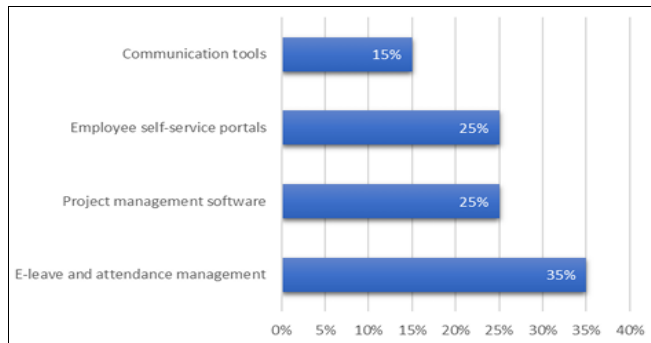


Fig 4.3.5: Tool improving employee time management

Half of the respondents (50%) reported that E-performance appraisal systems are most helpful for tracking individual performance progress. LMS and training platforms were next at 25%, suggesting that performance appraisal systems are central for monitoring and improving employee output.

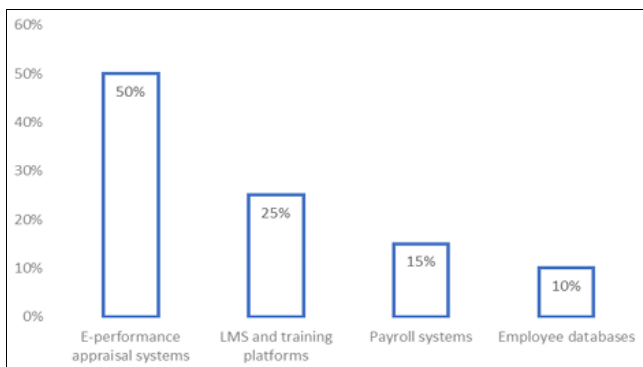


Fig 4.3.6: System helpful for tracking individual performance progress

Performance management software was identified by 40% of SMEs as supporting goal-setting and monitoring most effectively. Project management tools and HR portals were also used but less frequently. This emphasizes the importance of integrated software for aligning individual goals with organizational objectives.

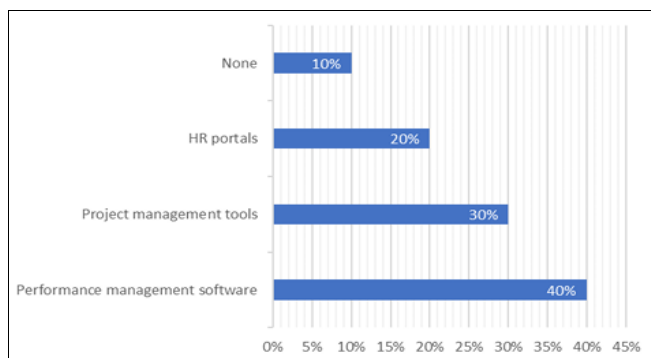


Fig 4.3.7: Tool supporting goal-setting and monitoring

E-training platforms were reported by 35% of respondents as having the greatest impact on overall employee productivity, followed by self-service portals and e-communication tools at 25% each. Payroll systems contributed the least, suggesting that productivity improvements are mainly driven by training and employee empowerment.

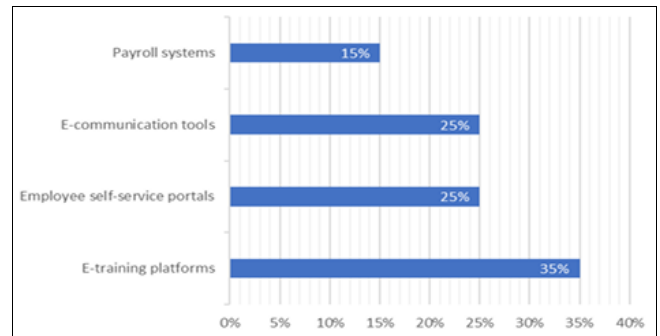


Fig 4.3.8: Tool with greatest effect on overall productivity

4.4 Relationship Between E-HRM Tools and Employee Performance

Performance management systems were selected by 32% of employees, making them the tool most linked to faster task completion. E-training platforms accounted for 28%, and ESS portals for 25%, showing that many employees rely on learning and self-service tools for speed. Only 15% chose communication tools, indicating that speed relates more to structured systems than messaging.

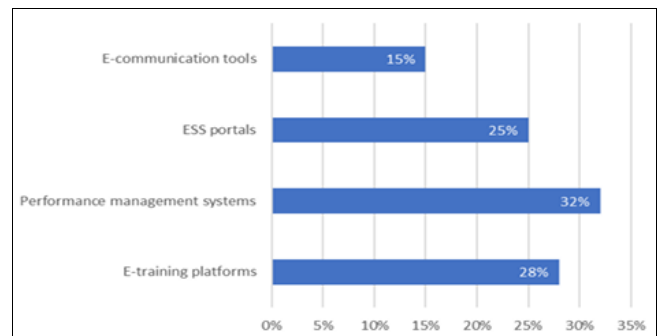


Fig 4.4.1: Tool that improves task speed

Performance appraisal software was chosen by 30% of employees as the main contributor to error reduction. LMS platforms followed with 26%, payroll automation with 22%, and e-recruitment tools also with 22%. These results show that structured evaluation and training processes have the strongest link to accuracy.

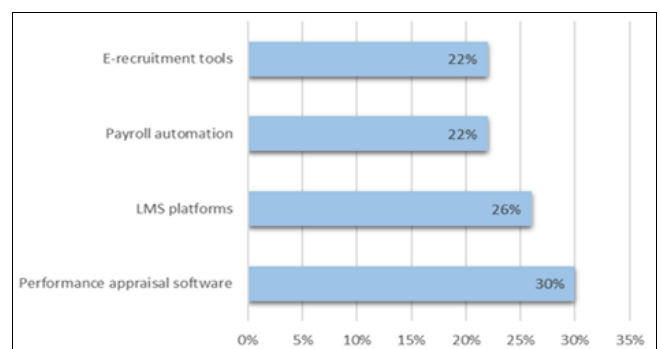


Fig 4.4.2: Tool that reduces errors

The results show a statistical relationship between the tool that employees say improves their speed and the tool they say reduces errors. The Pearson Chi-Square value is 96.667 with 6 degrees of freedom and a significance level of 0.023, which is below the 0.05 threshold. This means the pattern in

the responses is unlikely to be due to chance. Employees who choose a tool for speed tend to choose a related tool for error reduction.

Table 4.4.1: Association Between E-HRM Tools for Speed and Error Reduction

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	96.667 ^a	6	.023
Likelihood Ratio	112.288	6	.023
Linear-by-Linear Association	1.820	1	.017
N of Valid Cases	100		

Performance review systems were identified by 34% of employees as the main tool for consistent work quality. Online training modules were selected by 30%, while scheduling tools and ESS portals each accounted for 18%. This indicates that consistency is highest when employees receive continuous digital feedback and learning support.

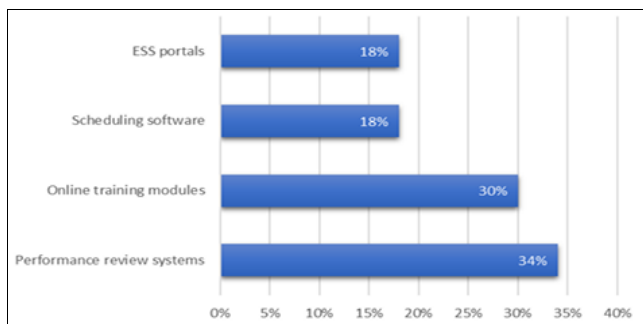


Fig 4.4.3: Tool that improves consistency in work quality

Project tracking software was selected by 38% of employees, showing the strongest link to meeting deadlines. E-leave and attendance tools accounted for 22%, while HR portals and email alerts each contributed 20%. This means visibility of deadlines influences time management more than general communication.

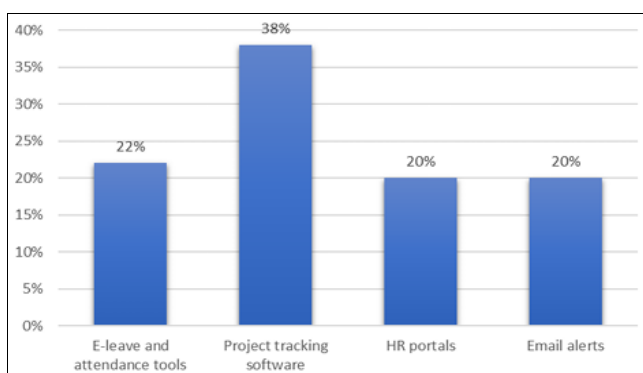


Fig 4.4.4: Tool that helps complete tasks on time

Performance management dashboards were selected by 36%, making them the most influential tool for meeting daily targets. Task-tracking tools followed with 28%, showing a strong secondary effect. Learning platforms and ESS services each accounted for 18%. This suggests that

performance targets improve when employees can see progress indicators.

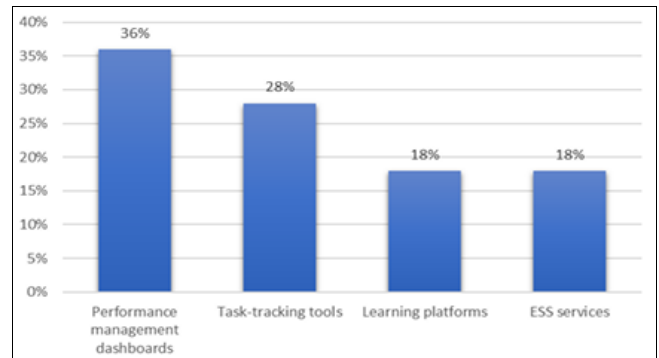


Fig 4.4.5: Tool supporting achievement of daily targets

Performance appraisal systems were selected by 40%, showing the strongest link to task progress tracking. Employee dashboards followed with 30%, while training platforms and workflow trackers each accounted for 15%. The data shows that employees rely most on systems that record performance information in a structured way.

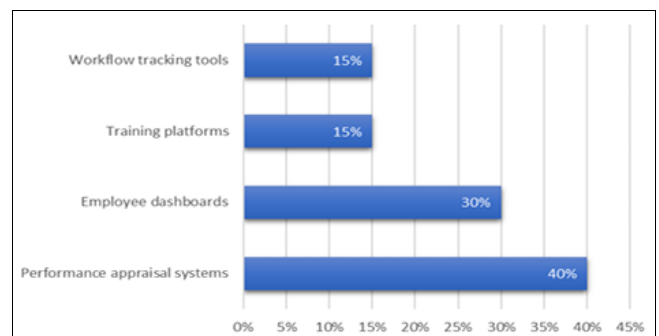


Fig 4.4.6: Tool for monitoring task progress

The Chi-Square analysis indicates a significant association between the tools used for meeting daily work targets and those used for monitoring progress. The Pearson Chi Square value of 96.667 with 6 degrees of freedom and a significance level of 0.001 shows that this relationship is statistically significant. This means that the choice of a tool for tracking daily targets is closely linked to the tool used for monitoring individual performance progress. The likelihood ratio of 112.288 with a significance of 0.000 confirms the strong association, while the linear-by-linear association value of 1.820 with $p = 0.001$ suggests a consistent trend across ordered categories.

Table 4.4.2: Relationship Between E-HRM Tools for Daily Targets and Progress Monitoring

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	96.667 ^a	6	.001
Likelihood Ratio	112.288	6	.000
Linear-by-Linear Association	1.820	1	.001
N of Valid Cases	100		

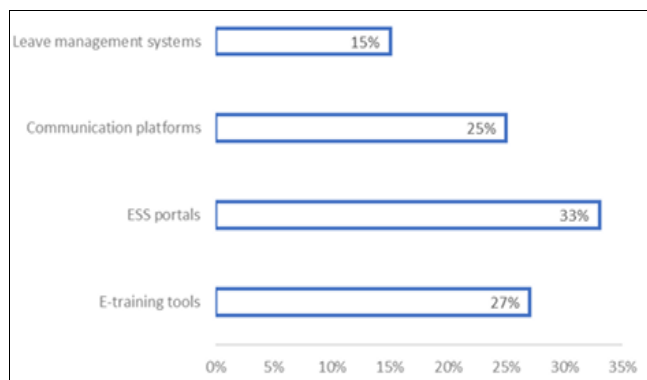


Fig 4.4.7: Tool that boosts productivity

ESS portals were selected by 33%, making them the top productivity-supporting tool. E-training tools were chosen by 27%, communication platforms by 25%, and leave management tools by 15%. This suggests that quick access to HR services supports productivity more than administrative tools.

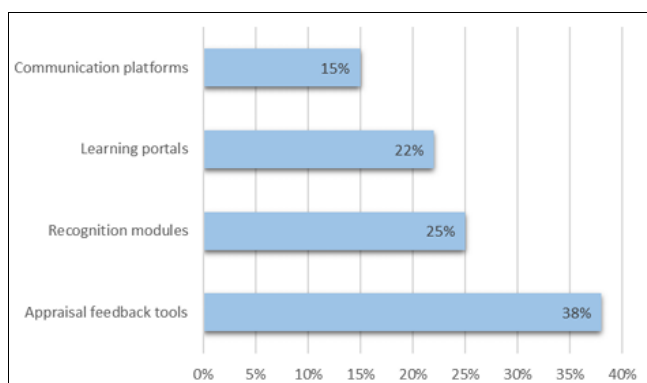


Fig 4.4.8: Tool that motivates performance improvement

Appraisal feedback tools were identified by 38% of employees as the strongest motivator. Recognition modules accounted for 25%, learning portals for 22%, and communication tools for 15%. These results show that digital feedback and recognition processes play a central role in motivation.

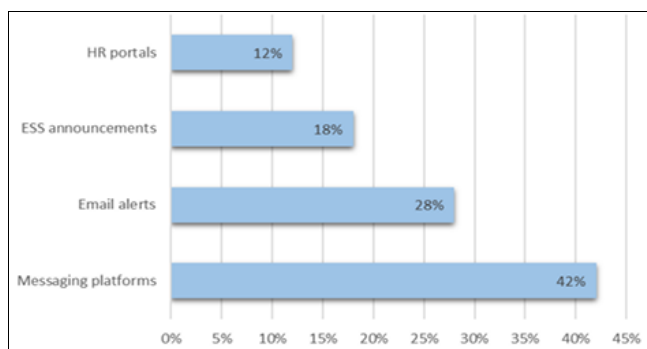


Fig 4.4.9: Tool that helps quick response to instructions

Messaging platforms were selected by 42%, making them the most effective for fast response. Email alerts accounted for 28%, ESS announcements for 18%, and HR portals for 12%. This suggests that employees respond faster when using tools that support direct and instant communication.

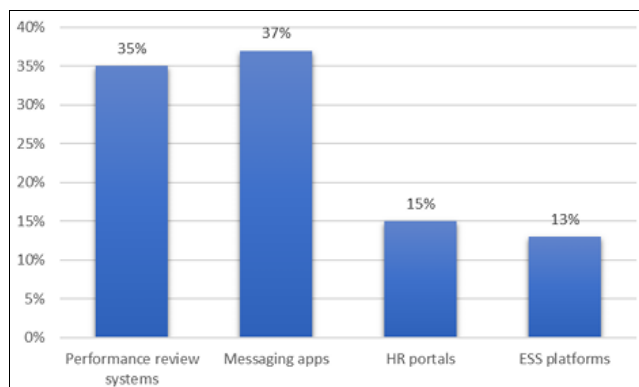


Fig 4.4.10: Platform supporting collaboration with supervisors

Messaging apps were selected by 37%, showing they are the strongest tool for collaboration with supervisors. Performance review systems followed with 35%, while HR portals (15%) and ESS platforms (13%) contributed less. This suggests that real time communication and structured feedback work together to improve collaboration.

4.5 Discussion of Research Findings

Objective I: Types of E-HRM Tools Adopted by Selected SMEs in Lusaka

The study revealed a pattern of gradual and uneven adoption of E-HRM tools across SMEs in Lusaka (AbdulKareem *et al.*, 2024) ^[1]. E-recruitment tools like online job portals (45%) were most common, while sophisticated systems like ATS (35%) and LMS (25%) saw lower uptake, reflecting a preference for low-cost, accessible tools over complex software (Aceto, 2019; Al Harthy, 2022 ^[3]). Adoption was often partial and hybrid, especially in areas like payroll and performance appraisal, where manual methods persisted due to cost, trust, and technical barriers (Griffith, 2019; Godbless, 2021 ^[8]). This pragmatic, function-specific adoption aligns with literature noting that SMEs balance digital transformation with resource constraints.

Objective II: Effect of E-HRM Tools on Employee Performance and Work Quality

The findings demonstrate that E-HRM tools significantly enhance performance, primarily through e-training platforms and performance appraisal systems (Mutiarin, 2019; Mushumba, 2024). These tools were reported to improve task efficiency, accuracy, and time management by automating processes and providing structured feedback (Okwang, 2020 ^[15]; Mutemwa, 2023). Results showed that employee self-service portals were key for workload management and autonomy, reducing administrative bottlenecks (Oluwaseyi, 2024). The positive impact on productivity and work quality supports literature on how digital HR systems foster a structured, transparent, and empowered work environment (Rahaman, 2024).

Objective III: Relationship Between E-HRM Tools and Employee Performance

Statistical analysis confirmed significant relationships between specific tools and performance outcomes. Performance management systems were most associated with faster task completion, while appraisal and training tools linked strongly to error reduction and consistent quality (Vardarlier, 2020; Vahdat, 2022 ^[22]). Tools enabling real-time tracking (e.g., project dashboards) directly

supported time management and daily targets (Vrontis, 2023). The Chi-Square results indicated these tools function synergistically; systems improving speed also enhanced accuracy, underscoring that integrated digital HR processes drive workforce performance more effectively than isolated applications (Valcik, 2021).

5. Conclusion and Recommendations

5.1 Conclusion

The study concluded that SMEs in Lusaka are increasingly adopting Electronic Human Resource Management (E-HRM) tools, particularly for recruitment, training, and communication, though many still use manual methods for payroll, appraisal, and leave management. E-training and performance appraisal systems were found to have the greatest impact on employee efficiency, accuracy, and productivity, while employee self-service (ESS) portals improved workload management and access to HR information. E-HRM tools also enhanced transparency and responsiveness by enabling faster leave approvals, easier access to payroll data, and remote HR service delivery. Overall, the study shows that E-HRM tools improve HR efficiency and employee performance, but SMEs need further investment in integrated systems, digital skills, and infrastructure to achieve full digital transformation.

5.2 Recommendations

To maximize the benefits of digital transformation, SMEs should invest in integrated, cloud-based E-HRM systems to consolidate functions and improve data accuracy. It is critical to strengthen digital infrastructure and provide continuous employee training to ensure effective use. Employee Self-Service (ESS) portals should be prioritized to empower staff and reduce administrative burdens. Furthermore, fostering collaboration with technology providers, implementing robust data security measures, and promoting a supportive organizational culture are essential. Finally, establishing policy support and regular monitoring and evaluation of these systems will ensure they remain aligned with business goals and adapt to evolving workforce needs.

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