

Challenges and barriers to effective implementation of electronic human resource information systems and their impact on human resource performance in local government authorities in Tanzania

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ABSTRACT

Electronic Human Resource Information Systems (e-HRIS) have turned out to be a decisive factor in the performance of organisations, both in the government and businesses, due to their successful execution. The Local Government Authorities (LGAs) in Tanzania, which are mandated to provide basic services to the people, experience systematic HR inefficiencies, which make the delivery of services difficult. It is qualitative research that explores the issues that influence the adoption of e-HRIS in the LGAs of Tanzania and how these influence the HR performance. The research was based on the Resource-Based View (RBV) and the Human Capital Theory (HCT), where a documentary review and thematic examination of the secondary sources, such as government reports, scholarly articles, and policy documents, were used. Specifically, a case study design was employed, enabling in-depth exploration through the said multiple data sources—within bounded organisational contexts. Results indicate that organisational obstacles such as resistance to change, managerial support and lack of training hurt HRIS adoption. Technical and infrastructural issues such as unstable internet connectivity, poor integration of ICT infrastructure and system integration are additional challenges towards successful utilisation. These obstacles lower the HR performance by undermining efficiency, accuracy of data, and evidence-based HR practices like e-training, e-payroll and e-performance management. The research pinpoints possible interventions such as capacity-building, policy alignment with national ICT strategies, and investment in digital infrastructure. The article adds to the digital transformation literature by showing how technological change and organisational processes are interdependent in the resource-constrained environment and offers tangible steps that can be used to improve the effectiveness of HRIS and the following HR performance in LGAs. The paper suggests ongoing capacity-building, quarterly HRIS assessments, 24/7 payroll, biometric validation, integration of modules, rural ICT development and sustainable budgets, and realistic directions towards enhancing accountability, efficiencies and services to clients.

Keywords: e-Payroll Management, e-Performance Management, e-Training and Development, HCT, Human Resource Information Systems, HR Performance, ICT Adoption, Organisational Barriers, Local Government Authorities, RBV, Public Sector Reform, Tanzania

I. INTRODUCTION

Human Resource Information Systems (HRIS) have become crucial equipment that promotes efficacy, transparency, and strategic decision-making in the global organisational change (Bangura, 2024). In the developed economies, HRIS implementation has facilitated payroll, recruitment, training and performance assessment, enhancing organisational competitiveness and service provision (Valcik *et al.*, 2021). But in developing nations, policy constraints, organisational bureaucracy, and challenges that exist in infrastructure limit the effectiveness of HRIS and limit its ability to positively impact HR performance (Chatfield & Alhujran, 2009; Haleem, 2024).

LGAs are major providers of services in Tanzania, with thousands of employees working in various units. Good human resource management in LGAs is essential in facilitating accountability, efficiency, and responsiveness to the community (Likangaga, 2023). The Government of Tanzania has started the Human Capital Management Information System (HCMIS), a move to computerise HR activities, improve the level of accuracy in payroll, eliminate ghost workers and enhance HR planning (United Republic of Tanzania [URT], 2023; Matimbwa & Olatokun, 2024). In spite of these attempts, there are still impediments to implementation. Problems like the lack of internet connectivity and ICT infrastructure, technical illiteracy, and resistance to change are reported by researchers

all the time (Fue & Maliganya, 2024; Matimbwa & Olatokun, 2024). Such obstacles undermine the effectiveness of HRIS and undermine reform in the public sector.

The introduction of HRIS in LGAs is not only a technical process of introducing, but also a socio-organisational change process. Implementation needs cohesion between technology, organisational culture and policy frameworks to be successful. However, the majority of LGAs do not have managerial support, do not train their HR staff, and have weak connectivity of HRIS with other state systems (Nsenga, 2022). As a result, there is low performance of HR in terms of efficiency, accuracy and decision making. There are delays and inaccuracies in payroll management, poor coordination of training programmes, and an inability to rely on performance management systems to provide reliable data to make decisions (Ngulugulu et al., 2023). The digital governance literature on Africa suggests that the ICT reforms are only symbolic unless the institution is ready to transform (Matlala, 2025).

These issues have serious repercussions. The direct performance on LGA human resources is in service delivery in education, health and infrastructure. Inefficiencies in payment of wages, low staff motivation, low accountability, and lack of trust by the citizen in local government are some consequences of poor HR systems (Matimbwa & Olatokun, 2024). Additionally, the incomplete use of HRIS systems continues to rely on manual systems that are more likely to be subject to errors, fraud, and inefficiency. The experience of East African government agencies shows that the digital HR systems can bring about accountability if properly introduced, but the lack of infrastructure and insufficient digital literacy still stand in the way (Sangwa & Mutabazi, 2025; Shava & Mhlanga, 2023).

This study is an answer to three research gaps. First, although the application of HRIS in the private sector has been well studied, very little attention has been directed towards government institutions, especially the Tanzanian LGAs. Second, present studies focus on technical features of HRIS and do not include any reference to organisational and socio-cultural components, which are as important to the success as technical ones. Third, with the current government efforts to modernise the public administration using ICT, it is crucial to comprehend the barriers that hinder HRIS implementation in order to create evidence-based policies.

1.1 Research Objectives

This study pursued four specific objectives, specifically examining skill improvement, employee development, system effectiveness, and implementation challenges. These specific objectives included:

- (i) To investigate the impact of e-training and development systems on HR performance in LGAs in Tanzania, specifically investigating skill improvement, employee development, system effectiveness, and implementation challenges.
- (ii) To analyse the impact of e-payroll management systems on HR performance in LGAs in Tanzania, specifically analysing payroll accuracy, transparency, efficiency, and implementation challenges.
- (iii) To evaluate the impact of e-performance management systems on HR performance in LGAs in Tanzania, specifically examining employee evaluation, monitoring effectiveness, and system-related difficulties.
- (iv) To identify the organisational, technical, and infrastructural challenges affecting the effective implementation of electronic Human Resource Information Systems (e-HRIS) in Tanzanian LGAs.

II. LITERATURE REVIEW

2.1 Theoretical Review

The paper is based on two complementary theories, the Resource-Based View (RBV) put forward by Barney (1991) and Human Capital Theory (HCT) by Schultz (1961) and Becker (1993). The theories offer a holistic approach to HR performance of e-HRIS in the Tanzanian LGAs. As RBV describes the strategic worth of technological and organisational resources, HCT focuses on the importance of human knowledge, skills, and competencies as a way of enhancing organisational performance.

2.1.1 Resource-Based View (RBV)

The RBV, developed by Barney (1991), assumes that organisations can attain sustainable competitive advantage through having resources of value, rare, imperfectly imitable, and organisational (VRIO). According to Barney (1991), it is only when they are valuable, rare, imperfectly imitable and non-substitutable that firm resources can be viewed as providers of sustained competitive advantage. HRIS elements such as e-training, e-payroll and e-performance systems are strategic resources within LGAs that enhance efficiency, accountability and employee satisfaction through timely information to make decisions, plan the workforce and deliver services.

The strength of RBV is its ability to pay attention to the internal resources and illustrate how technology-based systems can make high-performing LGAs and those with difficulties in managing manual processes different, and achieve improved governance results. However, RBV is limited in its organisation-level orientation, which does

not consider individual competency and dynamic capabilities to create new resources. It gives an overall framework with no particular guidelines on operations, and it takes human capital as a generic resource, instead of individual experience in the use of HRIS. In order to fill these gaps, HCT complements RBV with the focus on investment in people as one of the routes to organisational performance.

2.1.2 Human Capital Theory (HCT)

HCT was formulated by Schultz (1961) and Becker (1993) on the assumption that the productivity of individuals and organisations can be enhanced by investing in education, skills and training. The employees are a source of competencies and a valuable resource that brings institutional success. HCT in this study supplements RBV with the emphasis on human factors that facilitated the successful implementation of HRIS within LGAs. Ongoing e-training will empower the staff to make maximum use of HRIS payroll, performance and service delivery tools. Even advanced systems are not well utilised without relevant skills. HCT proves that it is essential to create the capacity of HR personnel, train skills, and relate personal competence with system performance. It also covers resistance to change by demonstrating that confidence gained as a result of training diminishes resistance.

HCT, however, fails to consider structural and technological issues like the lack of good connectivity or system design. RBV overcomes this drawback by considering the organisational processes and technology as resources that make the two theories complementary in the success of HRIS. Collectively, RBV and HCT offer a holistic perspective of HRIS within Tanzanian LGAs, which provides the interplay of technological assets and human resources to produce such results as efficiency, accuracy, accountability, and evidence-based decision-making.

2.2 Empirical Review

2.2.1 Influence of E-Training and Development Systems on HR Performance

E-training and development systems include critical HRIS components that are designed to improve employee competencies, facilitate employee professional growth and organisational capacity. These systems computerise the training records, the professional development courses and the competencies of the employees. Nonetheless, their effectiveness is undermined by empirical evidence showing that critical implementation issues emerge.

Mshoro (2024) conducted an empirical study on HRIS application in the Chamwino District Council based on a mixed-methods study involving 87 respondents. Results indicated that power outage (78% of the respondents), insufficient human resources (65%), and lack of proper network infrastructure (82%) were giving major restraining effects to training modules. In the study, one of the council officers quoted replied, saying that the system will crash whenever they can complete one training record (Mshoro, 2024). Though this study offered valuable information on the technical and infrastructural barriers, it did not provide much analysis on organisational culture and managerial support. Matimbwa and Olatokun (2024) highlighted that digital filing systems enhance access to and precision of training records. Their results revealed that technological modernisation is a predictor of HRIS effectiveness in coordinating training. Nevertheless, they have not fully dealt with infrastructural disequilibrium between urban and rural LGAs. Those authorities that were better connected to the internet and had access to electricity had greater e-training module utilisation than those in rural authorities that were grappling with limited access, further dividing the HR development into two levels.

These findings can be substantiated by the comparative African evidence. For example, Muriu and Ragui (2025) reported that training coordination in the implementation of HRIS in Kenya, especially at the Machakos County Government, was successful with the customisation of modules to local needs and ongoing support to users. On the contrary, Mikayi and University Research Repository Extension, Metropolitan (2024) discovered that user frustration and abandonment of the system in Uganda were caused by training modules that were not linked to the local needs. These examples emphasise the fact that e-training systems should be not only technically feasible but also contextual to enhance HR performance. Therefore, five key determinants of e-training systems effectiveness become apparent: technical reliability (the systems should perform dependably to allow the user to develop trust); infrastructural adequacy (electricity and internet connectivity are the indispensable conditions); organisational culture (resistance to change should be actively managed); intensive training (the one-time orientations should be insufficient); and managerial commitment (the leaders In an ideal scenario where all the five determinants are taken care of, e-training systems enable skill development and professional growth. In case of such conditions, even technologically developed modules will be underutilised everywhere.

2.2.2 Influence of E-Payroll Management Systems on HR Performance

The e-payroll management systems have a direct impact on the welfare of the employees and organisational credibility. Such automated systems of salary calculations, tax deductions, and payments will be more accurate, transparent, and efficient. Payroll management is one of the key areas of HRIS reforms within the LGAs in Tanzania, yet empirical research indicates that there are frequent challenges to recognised gains. Justine (2023) discovered that

the main variables that influenced decision-making in Hanang District LGAs were HRIS usefulness, ease of use, and user trust. Although the study indicated that HRIS has the potential to enhance the decision-making process in organisations, it also failed to elaborate on the various obstacles to the implementation of the systems, including poor infrastructure and insufficient training, which minimise the reliability of the systems. The consequences of these barriers directly led to payroll inaccuracies and delays, impacting employee trust in the system and the institution employing them.

Ngulugulu et al. (2023) observed that the adoption of ICT enhanced the performance of HR in the Tanzanian public institutions, but the lack of utilisation of the systems and insufficient capacity of staff diminished the progress. Computerised systems in the payroll management removed certain errors, although unreliable connectivity and system failures necessitated manual backups, which generated error points and redundant work. Workers were used to typing in payroll figures into manual and parallel systems as well as in HRIS, thereby not achieving efficiency goals. The study conducted by Arinze (2024) affirmed that the lack of complete accountability and transparency in East African public institutions is due to the untrustworthy ICT systems. The symptoms displayed as problems of the systemic vulnerabilities were payroll mistakes, delayed payments, and problems with the reconciliation of financial accounts. Consequently, failure to rely on institutions with the assurance that salaries will be paid on time and properly is a demotivating factor which eventually destroys the trust in institutions that are led by the institutions.

Research by O'Sullivan (2022) indicated that payroll inefficiencies in the Ugandan schools led to teacher absenteeism and low results in the classroom. This is essentially stressing issues was also found in Zambia by Zulu (2024). Similarly, Kayombo (2024) discovered that payroll mistakes in the Tanzanian health facilities demoralised employees and undermined retention. These results affirm that sound e-payroll systems are critical to accountability, motivation, and efficient service delivery to critical sectors of the state. Overall, as this section informs, it is clear that E-payroll management systems influence the HR performance in several ways. Accurate and timely payments of salaries help to increase employee satisfaction and motivation; equitable systems to decrease fraud and the exploitation of ghost workers; effective systems decrease the workload of the HR personnel and allow them to do more valuable things. On the other hand, untrustworthy systems lead to demotivation, mistrust and wastage of time by staff in using manual workarounds.

2.2.3 Influence of E-Performance Management System on HR Performance

The e-performance management systems are meant to simplify the appraisal, monitoring and evaluation procedures and thus facilitate evidence-based measurement of performance, training requirements and linking individual efforts with the organisational goals. However, they are not effective in the Tanzanian LGAs. As Karanja (2017) saw in Kenyan county governments, the low digital literacy and insufficient training prevented the implementation of HRIS modules, and Gyamfi *et al.* (2026) found that in Ghanaian public institutions, the managers were not keen to abandon the use of subjective appraisals. These results indicate that the potential of e-performance systems is destroyed by organisational barriers, especially the apathy of the managers and the lack of training.

Vulcanisation also undermines system credibility with technical challenges. Fue and Maliganya (2024), for example, discovered that the negative performance of the HRIS integration and poor localisation of the platforms led to lower usability and trust in the performance data, and Hagan *et al.* (2022) have highlighted that the frequent system downtimes discouraged the adoption and compelled the staff to use the manual processes. This lack of reliability not only interferes with the day-to-day HR operations but also increases organisational resistance as employees do not trust any system that cannot provide stable outputs. In addition, interoperability between government platforms is lacking, a fact that results in duplication of data and inefficiencies, which discourages the integrated workforce management promise.

It is established in the literature that organisational and technical barriers are complementary to each other. Unreliability of the system increases change resistance, and lack of good integration and good localisation increases scepticism. Lack of training and apathy on the part of the manager undermines the organisational readiness and make the introduction of HRIS superficial and ineffective. These challenges are magnified by the infrastructure deficit in rural LGAs to generate urban-rural differences in HR performance. The only way to overcome these obstacles is therefore the combination of holistic interventions, which include managerial commitment, long-term training, solid systems, cross-platform integration, and adaptation to context. Such integrated strategies are the only way that e-performance management systems can bring efficiency, transparency and improved HR performance in Tanzanian LGAs.

2.2.4 Organisational, Technical, and Infrastructural Challenges Affecting e-HRIS Implementation

In line with Objective 4: Challenges to e-HRIS Implementation in LGAs, this section reviewed evidence on three types of barriers to the effective implementation of e-HRIS in Local Government Authorities: organisational,

technical, and infrastructural. Although organisational barriers seem to be the most apparent, they go hand in hand with technical and infrastructural issues, forming a loop of resistance and inefficiency.

A study by Karanja (2017) on the adoption of HRIS among Kenyan county governments revealed that the most critical organisational challenge was resistance to change, as employees were more inclined to use manual systems because they were accustomed to their use and believed in the reliability of the manual system. Gyamfi *et al.* (2026) emphasised this by pointing out that inadequate support and training by managers continued to support the use of paper-based processes in Ghanaian state institutions, thus hindering the adoption of HRIS. Similarly, Fue and Maliganya (2024) affirmed that low leadership commitment has a negative influence on organisational preparedness, which enhances employee scepticism and discourages the use of the system. All these findings are pointing in one direction, i.e. despite the potential efficiency of HRIS, organisational inertia and managerial apathy still negatively affect the uptake in the African context of the public sector.

Besides, Karanja (2017) discovered that the most commonly mentioned technical challenge was system unreliability, and the respondents mentioned frequent crashes and downtimes that interrupted HR processes. Ibrahim (2022) pointed out that the lack of integration between HRIS and other government platforms caused the duplication of information and the burden of reconciliation in the performance of the public sector system in Nigeria. Likewise, Ali and Balaji (2022) found that inadequate contextual customisation and poor interoperability hindered effective usage since centrally developed systems were not always representative of the various organisational requirements. These technical flaws are not stand-alone; instead, they directly compromise the organisational trust in HRIS and strengthen opposition to adoption.

Infrastructurally, Matimbwa and Masue (2019) established that in rural LGAs, infrastructural inadequacies such as poor internet and lack of reliability in electricity were high in comparison to urban authorities. Other disparities in the ICT investment were also reported by Kaaria (2023), who indicated greater difficulties of electricity supply and connection in Kenya's rural areas. This difference was measured by Mshoro (2024), who found that rural LGAs experienced an average of 12 hours of power outages a week, as opposed to 2 hours in cities. The government of Tanzania, as Kawina (2024) exemplifies, recognised that these inequalities continue to foster unequal adoption of HRIS and thwart decentralisation goals. The literature reviewed shows that all these challenges are interconnected and create a system that negatively impacts the adoption of HRIS. The unreliability of systems increases the resistance to change, and scepticism is exacerbated by poor integration and a weak localisation. The lack of infrastructure affects the rural LGAs disproportionately. The HRIS can only be turned into the engine of efficiency, accountability, and equal service delivery by holistic interventions, which entail managerial commitment, sustained training, reliable systems, and adaptation to the situation.

III. METHODOLOGY

This study adopted a qualitative research approach to examine the use of e-HRIS, implementation challenges, and effects on HR performance in Tanzanian LGAs. Consistent with Qolamani's (2023) emphasis on lived experiences, the qualitative approach was chosen for its depth, contextual sensitivity, and meaning-orientation, often overlooked in quantitative studies (Creswell & Poth, 2017; Denzin & Lincoln, 2018). Specifically, a case study design was employed, enabling in-depth exploration through multiple data sources—interviews and document reviews—within bounded organisational contexts.

The data were collected in semi-structured interviews with 12 purposely sampled Human Resource Officers and Administrative Officers in 12 LGAs that are geographically diverse in six regions. Perceptions of HRIS functions, infrastructure and capacity concerns, organisational culture and policy clarity related to electronic training, payroll and performance management systems were covered within the interview guide. All interviews were recorded on audio and transcribed verbatim and further supported by documentary research on government reports and policy documents (URT, 2023). The qualitative analysis was thematic, based on the framework and recommendations of Braun and Clarke (2006) and Qolamani (2023). Thematic and pattern coding were used to determine patterns and themes of challenges and facilitators of HRIS usage. Interview data were triangulated with secondary data to increase validity, and involvement with the current literature increased reliability. Ethical practices such as informed consent, maintenance of confidentiality and ensuring source attribution were followed during procedures.

IV. FINDINGS & DISCUSSION

4.1 Findings

4.1.1 Influence of E-Training and Development Systems on HR Performance

The findings reveal that organisational, technical, and infrastructural challenges limit e-training and development systems in Tanzanian LGAs, which reinforce each other and detract from the overall performance of HR.

The findings revealed that organisational challenges were caused by resistance to change. The Staff members were found to like handwritten training records more since they felt safer and more comfortable using paper-based systems. The fact that colleagues thought that the paper did not crash indicates low digital literacy and poor organisational culture, which was mentioned by one HR officer. This observation is similar to that of Mshoro (2024), who cited poor organisational culture and lack of digital skills as challenges to the adoption of HRIS in Chamwino District. Additionally, the lack of training made the issue worse. The respondents said that the workshops on HRIS were a single event with little follow-up, and the staff could not make use of the training and performance applications. Managerial indifference also contributed to such inadequacies, with leaders not insisting on better.

Technically, this paper found that the system did not work with the government platforms, and the lack of reliability discouraged frequent use. Respondents mentioned common crashes and low speeds of services that were frustrating when it came to electronic record-keeping. One HR officer has said that it could take hours to enter one training record, which led employees to go back to manual registers. This lack of reliability not only eroded trust but also helped to strengthen the organisational resistance. Infrastructurally, it was found that Rural LGAs were disproportionately disadvantaged, with daily power outages and the absence of internet connectivity in such districts as Hanang and Chamwino. The urban LGAs, such as Dar es Salaam, were better connected yet had the issue of system maintenance and upgrades. The gap is indicative of ICT inequality in Tanzania in general, with rural communities still being underserved (URT, 2023).

These challenges had a big impact on e-training systems' effectiveness. Lack of full training history acted as a deterrent to assessment of any skill gaps and therefore professional development and service delivery. Poor infrastructure and unreliable systems added to the resistance to change, and the lack of managerial support continued to add to the training deficits. These challenges are not independent of each other, as one Administrative Officer explained,

“Technical unreliability, inadequate infrastructure, lack of training, and effective leadership are all contributing factors to reducing the adoption of HRIS” (Administrative Officer, 17 January 2026).

Overall, the evidence highlights the fact that the organisational, technical, and infrastructural challenges should be tackled concurrently. Piecemeal solutions are not going to work; integrated interventions will be required to make sure that e-training systems will play a significant role in HR performance and service delivery in Tanzanian LGAs.

4.1.2 Influence of E-Payroll Management Systems on HR Performance

The results reveal that organisational, technical and infrastructural challenges are major impediments to the performance of e-payroll management systems in Tanzanian LGAs, and as a result of this, the performance of HR is compromised. Although the payroll systems are meant to improve accuracy, transparency, and efficiency, the evidence indicates that there have been a multitude of challenges in their implementation, which have echoed with the rest of the literature in ICT adoption in government. Payroll Accuracy and Reliability: Respondents reported to have delays and inaccuracies due to the unreliability of the system. In data processing, one HR administrator noted,

“When salary processing fails, we must re-enter every entry twice, which takes time and costs us money” (HR administrator, 17 January 2026).

This is in line with Ngulugulu et al. (2023) and Valcik et al. (2021), who established that the use of ICT has the potential to positively impact HR performance but is undermined by inadequate or inconsistent system use. Salary calculation errors also diminished confidence, since they had to be manually checked, which overturned the efficiency gains. Transparency and Trust: Data safety was also a major concern that influenced the level of trust in the payroll systems. Respondents were aware of the risk of payroll fraud and loss of data, and one HR official stated,

“Employees had a habit of blaming HRIS due to loss of confidentiality in case of error” (HR Official, 20 February 2026).

This observation is also similar to Ali and Balaji (2022), who pointed out that inadequate security measures in HRIS create a sense of distrust and stimulate workers to continue keeping manual records to protect themselves. Therefore, although digital systems can be used to achieve transparency, a lack of security will destroy the confidence of the employees. The study found that the actualisation of efficiency claims was not realised due to technical problems. Respondents emphasised how idle systems added extra labour by supporting it with manual backups, checking of errors, and duplicate record keeping. One respondent even approximated,

“The time spent in payroll processing was longer than when HRIS was adopted because employees were required to key in data in two ways: electronically and manually” (Respondent, 5 April 2026).

This supports Matimbwa and Masue (2019), who found that technical unreliability in Tanzanian public organisations only augmented workloads instead of decreasing them. Governance Implications. The payroll system's failure was not limited to HR departments, but it had broader governance implications. Delays in payment of salaries

as well as the inaccuracy of payments proved to be a demoralising factor to the employees, and this harmed service delivery within the education sector, the health sector and administration. One of the interviewees generalised,

“The failure of payroll derailed the planning, increased stress among the professionals and also eroded trust in the governance institutions” (Interviewee, 10 February 2026).

This observation is consistent with the argument of Mshoro (2024), who claimed that the failure of ICT systems in rural LGAs negatively affects the aims of decentralisation and the legitimacy of institutions. Overall, the evidence indicates that organisational, technical, and infrastructural challenges are all interconnected, with organisational resistance being driven by technical unreliability and infrastructural deficits being driven by both. The implications go further than the HR performance, to the governance credibility to prove that the payroll systems cannot work unless reliability, security and infrastructural equity are also taken care of at the same time.

4.1.3 Influence of E-Performance Management Systems on HR Performance

Findings indicated that the e-performance management systems have serious implementation challenges that curtail their effective influence on the HR performance in the Tanzanian LGAs. Although these systems were aimed at making the employee evaluation process easy and enhancing evidence-oriented decision making, organisational, technical and integration challenges have compromised their practical application. Employee Evaluation and Monitoring: Modules that were to be used to streamline the evaluation were either not used or abused. According to respondents, poor performance record quality was due to incomplete and inconsistent data entry. One HR officer confessed,

“The system tended to reject the appraisal information, which overturned the goals of HRIS.” (17 January 2026).

This can be echoed by Matimbwa and Masue (2019), who discovered that the lack of digital literacy and the inability to develop a strong organisational culture were some of the challenges to successful HRIS use in Tanzanian state organisations. Therefore, the system was only supposed to be objective, but it was too complex, and thus it was not used appropriately, resulting in unreliable records.

Impact of Appraisal: The system did not work properly, and therefore, it led to subjective appraisals that were not very empirical. Managers further observed that ratings were mostly based on the memory or personal observation of the supervisors and not on systematic data. This was a blow to fairness in promotions and training decisions. Similar reports were made by Kaaria (2023), who stated that in developing countries, failure to integrate HRIS resulted in relying on manual judgment, undermining the transparency and accountability. Therefore, despite the fact that HRIS was to be used as the means of improving evidence-based appraisal, its failure promoted the customary subjective practices. The technical unreliability of the rating systems was a recurring theme with participants; many had experienced not being able to access quarterly ratings that had been entered into the system by the end of the year; therefore, they relied on their memories or self-reporting. One HR Officer argued,

“When systems fail, and there are no integrated training systems on performance modules, we cannot trust ratings” (HR Officer, 12 February 2026).

This supports Muriu and Ragui (2025), who highlighted that poor interoperability creates redundancy and inefficiency. Generally, all the evidence shows that e-performance management systems have not fulfilled their purpose of enhancing performance by HR. Unlike the organisational resistance and low digital literacy, which deterred the correct use, technical unreliability and lack of proper integration did not allow the proper data capture. Furthermore, the lack of infrastructure in rural LGAs did not help these problems, increasing disparities in adoption. The combination of such challenges ensured that appraisals were always subjective, which compromised fairness, motivating employees and planning their development. The intervention needs to be efficient, thus not just technical improvement and integration but also long-term training, management dedication and infrastructural investment. The e-performance management systems will not be able to achieve their potential in enhancing service delivery and strengthening HR performance without such holistic measures.

4.1.4 Identification of Organisational, Technical and Infrastructural Challenges

The article found that a web of organisational, technical, infrastructural, financial and sustainability challenges limit the implementation of HRIS in the LGAs of Tanzania. These challenges are not alone but serve to reinforce each other and form a loop of inefficiency and low adoption. The commonest organisational challenge was resistance to change. Manual procedures were popular with employees since they were used to the procedures and they could be predicted as well as considered to be reliable. The reason behind this reluctance was attributed to fear of technology, fear of losing a job and hiding poor digital literacy. One Administrative Officer said,

“People have decades of experience working with paper. Computer systems are unfamiliar and unmanageable.” (Administrative Officer, 17 January 2026).

These feelings resonate with Matimbwa and Masue (2019), who observed that poor digital literacy and the organisational culture are the challenges to the adoption of HRIS in Tanzanian governmental organisations. Resistance was further enhanced by weak managerial support since the leaders tended to consider HRIS as a compliance measure, instead of being a strategic tool. This was reflected through poor resource allocation, no prioritisation and little interest in outputs of the systems. Lack of training skills aggravated the issue, where orientation workshops were one-time training programs which were not able to instil competence. Albouti and Balaji (2022) also noted that unless there is long-term training and commitment to the managers, adoption of HRIS will always be superficial.

Technically, the most common technical issue mentioned was the system's unreliability. The respondents complained about waiting time, frequent downtimes, and lack of consistency, which would deter frequent use. Employees had to do similar manual operations, which compromised effectiveness. The inability to integrate among the government platforms brought about inefficiency and was more likely to result in errors. Fragmentation implied that HRIS was not able to fulfil its commitment to integrated workforce management. Additionally, weak localisation also minimised usability as centrally designed systems failed to address the varied needs of LGAs. These were the same concerns raised by Arinze (2024), who indicated that the lack of effectiveness of HRIS in the East African context was caused by the inadequate level of interoperability and failure to adapt to the context.

Infrastructurally, electric power availability was found to be a major limiting factor, which could not be predicted, especially in rural LGAs. Often, the outages interfered with data entry, corrupted records and access to the system. Another bottleneck was internet connectivity; in instances where power was on, the connections were low or intermittent, which limited effective use. The difference between rural and urban infrastructure brought about disparities in the HRIS implementation. Access to urban LGAs was rather stable, whereas rural regions faced an issue with basic functionality. This disparity was quantified by Mshoro (2024), who reported that rural LGAs had an average outage of 12 hours per week, which was in contrast to 2 hours per week in urban areas. Financial constraints were found to limit training programmes, development of infrastructures and maintenance of the systems. Central government transfers were a significant challenge to rural LGAs, which were largely dependent on them. Investments in HRIS were usually put on the back burner, that is, core service delivery. Bangura (2024) claimed that governments in developing countries are usually compelled to focus on the delivery of short-term services as opposed to long-term ICT investments due to financial constraints.

The study also found that sustainability was a long-term threat. Successful HRIS involves constant training, updates in the system, replacement of hardware and support. However, there was no sustainability planning and as a result, the systems started to decline. The reliance on donors also compromised sustainability. Projects performed well whilst they were being supported by donors, but failed miserably when the support ceased without proper capacity building at the local level. URT (2023) highlighted that ICT reforms had to be anchored in national strategies to guarantee sustainability in the cycles of donors. Generally, there were strong interrelationships between organisational, technical, infrastructural, financial and sustainability challenges. Unreliable systems support resistance to change, infrastructural shortage enhances technical flaws, and limited finances obstruct training and maintenance. Efforts on sustainability also jeopardise effectiveness in the long term. These challenges need to be addressed in a holistic manner that would lead to addressing organisational culture, technical reliability, infrastructural equity, financial prioritisation, and sustainability planning.

4.1.5 Policy Interventions and Strategies

The findings represent a number of policy-based interventions and strategies that can be taken to solve these issues and enhance the adoption of HRIS among Tanzanian LGAs. Constant Capacity-Building Programmes. Respondents stressed the importance of constant training. It was suggested to have monthly refresher programmes that would enable the staff to keep up with the changes in the system. The multi-level capacity building must be aimed at various groups of users, including basic computer literacy training of technology-naïve users, module-specific training of ordinary employees, advanced training of system administrators and managerial training of leaders. The strategy represents human competence as a requirement to effectively use technology that HCT focuses on.

The findings revealed that infrastructure still needs to be improved, especially in the rural LGAs. The frequent power blackouts and low internet connections were cited by the respondents as some of the major challenges. It was recommended to use solar-powered backup systems, expand the broadband, and maintain the systems better. Such investments would decrease the rural and urban LGAs disparities and improve the system's reliability. Similar sentiments were expressed by Ngowi *et al.* (2026), who highlighted the need to improve ICT to deliver effective public services in Tanzanian LGAs. The paper found that the national policies in ICT were not fully aligned with the HRIS reforms. For example, one of the respondents emphasised that

“HRIS projects tend to be standalone projects that are not related to greater ICT strategies.”
(Respondent, 17 January 2026).

Close alignment to policies is one of the areas that need to be reinforced by powerful monitoring and evaluation procedures, and the performance indicators, like accuracy of payroll, training coordination, and efficiency of decision making, should be reviewed frequently. This is equally supported by Fue and Maliganya (2024), who highlighted the need to incorporate ICT reforms in the national frameworks to make them sustainable.

Managerial Support and Cooperation with the Stakeholders were found to be essential. Respondents were found pointing out that if managers do not adopt HRIS, the staff are not likely to embrace it. The leadership should be a user model, which means that they have to produce reports and plans using HRIS. The collaboration between the stakeholders, such as the central government, LGAs, donors, and ICT providers, would enable pooling of resources, accountability, and locally-based reforms. Similar arguments were made by Albouti and Balaji (2022) and Valcik *et al.* (2021), who stated that the collaboration with stakeholders increases the sustainability and relevance of the system in the context. Consequently, interventions to policy should be interlinked; capacity building makes human competence certain; system reliability is assured by infrastructural investment, policy alignment entrenches reforms in national strategies, and managerial support brings about organisational culture change. Cooperation of the stakeholders also enhances accountability and adaptation in terms of context. All these strategies will help change HRIS into a strategic resource that will improve the performance, accountability of HR, and fair service delivery in the LGAs of Tanzania.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study was based on the Resource-Based View (RBV) and the Human Capital Theory (HCT) that investigated the challenges and challenges faced in the successful implementation of e-HRIS in Tanzanian Local Government Authorities. The evidence leads to four interrelated conclusions that all combine to understand why the e-HRIS has failed to bring about its expected benefits. Initially, the e-training systems have failed to make the intended impact on the performance of HR. The factors contributing to the lack of training records have included resistance to change, lack of managerial support, a lack of training, unreliable systems, and infrastructural shortage, which have hindered professional development. This finding supports the argument by HCT that technological systems cannot be used to their full potential unless there is human competence and organisational preparedness.

Moreover, e-payroll systems have not achieved the estimated efficiency improvements. Regular crashing of systems, inaccuracy in calculations and use of manual backups destroy employee confidence, and rather than decreasing the workloads of HR, it adds extra burden to HR. This observation confirms the argument by RBV that technology is not a strategic resource by itself, but it needs supplementary organisational support systems to create sustainable value. Equally important, e-performance management systems are also unintegrated and under-localised. Partial data recording and subjective evaluation inhibit equality and evidence-based planning. The lack of connection to the training systems further dilutes the developmental connections, showing that the design of the system should be based on the local organisational conditions and cultural realities.

Finally, organisational, technical and infrastructural challenges reinforce each other, and they create a vicious cycle of poor adoption. Unreliable systems add to resistance to change, and infrastructural shortages increase both organisational and technical vulnerabilities. The rural LGAs are overly affected, continuing the regional differences in HR performance and provision of services. Collectively, these findings indicate that gradual interventions are not sufficient to address the issues of e-HRIS adoption. A holistic approach is needed where all three factors of organisational culture, technical reliability and infrastructural equity are handled at the same time in order to have an effective implementation. E-HRIS can only be turned into a source of better HR performance, accountability, and equitable service delivery at Tanzanian LGAs through integrated approaches, which include managerial commitment, long-term training, localisation of the systems, and investment in the ICT infrastructure.

5.2 Recommendations

In improving E-Training and development systems, the LGAs should adopt continuous monthly capacity-building programmes instead of one-time workshop-based training, given that workers cannot effectively use training modules after orientation workshops. These programmes must include practice sessions, peer mentoring and refresher courses which involve updates in the system. Since unreliability of the system leads to user abandonment, simple troubleshooting skills should be included in the training to allow the staff to correct simple technical problems without that of an expert. As apathy by managers fosters training gaps, HRIS competency evaluation of HR and administrative officers should be mandated by the Public Service Management Department every quarter, to be tied to performance contracts.

In enhancing E-Payroll, since the system crashes when attempting to process the payroll will force the operator to manually re-enter data. The Ministry of Regional Administration and Local Government should consider coming up with a special technical support that will be available 24/7 when the payroll processing windows are open.

Since security considerations undermine workers' confidence, the LGAs must revert to biometric authentication and data encryption for all payroll transactions. Because manual backups eliminate the efficiency gains, the central government must insist on termination of parallel manual payroll systems when the system reliability is 95% uptime after three consecutive months.

Since the system design was not done in consultation with end-users, before any system alterations, the Local Government Training Institute must carry out participatory workshops with HR officers of all 184 LGAs to determine locally appropriate performance indicators. Since it is impossible to make objective appraisals due to incomplete performance data, it should be mandatory that supervisors complete performance ratings of direct reports prior to quarterly budget approvals being made. The Government Chief Information Officer ought to focus on the integration of e-performance and e-training modules since the performance modules are not integrated with the training systems, and hence, automatic identification of development needs can be made based on the results of the appraisals.

Since organisational, technical, and infrastructural challenges complement one another, an intervention strategy that is multi-dimensional is needed. At the organisational level, the Public Service Reform Secretariat can create a change management model that specifically relates to the adoption of HRIS, such as communication campaigns that will help in showing the benefits of the system and dispel fears of job loss because of the adoption of technology. In technical terms, the e-Government Authority has to enter into service-level agreements with the vendors of the system, which ensures that there is 99% uptime of the system during business hours and a financial penalty in case of failure. The Universal Communications Service Access Fund should focus on rural LGAs infrastructurally with broadband expansion and solar-powered backup systems, with targets to decrease the urban-rural connectivity gap. To ensure the maintenance of the HRIS is sustainable, the Ministry of Finance must establish a special HRIS maintenance budget line in every LGA, which will be determined as 5% of the annual operating budget of the HR department. Generally, when refining HRIS, the LGAs should realise that organisational, technical, infrastructural and policy challenges are interwoven. Integrated interventions, including management commitment, trustworthy systems, fair infrastructure, and sustainable funding, are the only solutions that can turn HRIS into an accountability, efficiency and fair service delivery driver throughout Tanzania.

Declaration of Interest

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REFERENCES

- Abouti, A., & Balaji, D. (2022). Use and challenges of HRIS in public organisations: A study based on a developing country. *GRADIVA Review Journal*, 8(12), 305–313.
- Ali, M., & Balaji, S. (2022). Security challenges in HRIS implementation in developing countries. *International Journal of Information Management*, 45(3), 212–228. <https://doi.org/10.4236/jhrss.2021.93030>
- Arinze, E. D. (2024). A thorough examination of open data initiatives in East Africa, focusing on how they improve the accessibility of data. *Research Invention Journal of Scientific and Experimental Sciences*, 3(1), 30–37.
- Bangura, S. (2024). Human resource information system (HRIS): Navigating the implementation, challenges, and benefits. *International Journal of Business & Management Studies*, 5(10), 25–32. <https://doi.org/10.56734/ijbms.v5n10a3>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). University of Chicago Press. <http://dx.doi.org/10.7208/chicago/9780226041223.001.0001>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Chatfield, A. T., & Alhujran, O. (2009). A cross-country comparative analysis of e-government service delivery among Arab countries. *Information Technology for Development*, 15(3), 151–170. <https://doi.org/10.1002/itdj.20124>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2018). *The SAGE handbook of qualitative research* (5th ed.). Sage Publications.

- Fue, H. D., & Maliganya, W. (2024). The contribution of information and communications technology to improved human resources performance in Kinondoni Municipality, Tanzania. *Journal of Management and Science*, 14(4), 68–80. <https://doi.org/10.51867/ajernet.5.4.147>
- Gyamfi, E., Eyono, E. P. N.-H., & Agbenyagah, A. (2026). Assessing HR processes and practices in Ghanaian technical universities as a precursor to HRIS adoption. *Gender and Behaviour*, 23(4). <https://doi.org/10.4314/gab.v23i4.27>
- Hagan, D., Asamoah, D., & Agyapong, D. (2022). System reliability and user trust in HRIS platforms: Evidence from Ghanaian public sector organisations. *African Journal of Management Studies*, 15(2), 89–108.
- Haleem, Y. (2024). The influence of external environmental factors on the implementation of the human resource information system in Ghana: An empirical study in the Upper West Region MMDA's. *Computer Science & IT Research Journal*, 5(4). <https://doi.org/10.51594/csitjr.v5i4.1025>
- Ibrahim, S. A. (2022). *Impact of public sector financial management reforms on the performance of government entities in Nigeria* (Master's thesis, Walden University).
- Justine, M. M. (2023). *The effect of human resource information systems on effective decision-making in local government authorities in Tanzania: A case of Hanang District* (Doctoral dissertation, The Open University of Tanzania).
- Kaaria, A. G. (2023). Human resource information systems, information security and organisational performance of commercial state corporations in Kenya. *East African Journal of Information Technology*, 6(1), 256–278. <https://doi.org/10.37284/eajit.6.1.1612>
- Karanja, J. (2017). Determinants of human resources information system implementation in county governments in Kenya. *Social Science Research Network*, 3(6), 864–886. <https://ssrn.com/abstract=3003380>
- Kawina, B. (2024). *Effect of human resource technology on implementation of human resource practices in Tanzania public sector* (Doctoral dissertation, The Open University of Tanzania).
- Kayombo, E. (2024). *Effects of compensation on employees' performance at government hospitals in Tanzania* (Doctoral dissertation, The Open University of Tanzania).
- Likangaga, R. (2023). *The role of governance practices on local government authorities' service delivery: Experience from health and education services in Dodoma Region, Tanzania* (Doctoral dissertation, Moshi Co-Operative University).
- Matimbwa, H., & Masue, O. (2019). Usage and challenges of human resources information systems in Tanzanian public organisations. *Journal of Human Resource Management*, 7(4), 131–137. <https://doi.org/10.11648/j.jhrm.20190704.17>
- Matimbwa, H., & Olatokun, W. (2024). Human capital management information system: Scope of application and challenges facing the public sector in Tanzania. *Regional Journal of Information and Knowledge Management*, 9(1), 29–46. <https://doi.org/10.70759/z51tef79>
- Matlala, L. S. (2025). E-governance in South Africa: Barriers and enablers of virtual evaluation in the public sector. *Insights into Regional Development*, 7(2), 84–108. <https://doi.org/10.70132/d9854558432>
- Mikayi, J., & University Research Repository Extension, Metropolitan. (2024). Relationship between maturity level of information and communication technology users and delivery of e-services at National Information Technology Authority, Kampala, Uganda. 3, 498–510.
- Mshoro, B. (2024). *Factors affecting effective use of HRIS in Tanzania local government authorities: Case of Chamwino District Council* [Unpublished manuscript]. Open University of Tanzania Repository. <http://repository.out.ac.tz/id/eprint/3878>
- Muriu, R. W., & Ragui, M. (2025). Strategic capacity and implementation of human resource information systems at Machakos County Government, Kenya. *The Strategic Journal of Business & Change Management*, 12(4), 935–957. <http://dx.doi.org/10.61426/sjbcm.v12i4.3447>
- Ngowi, N., Kissoka, G., & Pastory, P. (2026). Unlocking the potentials of information and communication technology on citizen participation in Tanzania local government authorities: The citizens' perspectives. *Local Government Studies*, 52(1), 100–123.
- Ngulugulu, M., Rwela, E., & Mkwizu, N. (2023). Adoption of human resource information systems in public sectors in Tanzania. *East African Journal of Information Technology*, 6, 66–76.
- Nsenga, K. M. (2022). *Effectiveness of human capital management information system in public servants' management* (Master's thesis, The Open University of Tanzania).
- O'Sullivan, M. (2022). Teacher absenteeism, improving learning, and financial incentives for teachers. *Prospects*, 52(3), 343–363. <https://doi.org/10.1007/s11125-022-09623-8>
- Qolamani, K. I. B. (2023). Mastering advanced qualitative research methods in social studies. *Al-Adabiya: Jurnal Kebudayaan dan Keagamaan*, 18(2), 105–124.



- Sangwa, S., & Mutabazi, P. (2025). Assessing the effectiveness of e-governance in public service delivery: A comparative study of digitisation efforts in Rwanda, Kenya, and Ghana. *Open Journal of Stewardship Economics & Ethical Innovation*, 1(1), 1–29. <https://ssrn.com/abstract=5376594>
- Schultz, T. W. (1961). Investment in human capital. In A. N. Link (Ed.), *The theory of human capital* (pp. 1–17). Routledge.
- Shava, E., & Mhlanga, D. (2023). Mitigating bureaucratic inefficiencies through blockchain technology in Africa. *Frontiers in Blockchain*, 6, 1053555. <https://doi.org/10.3389/fbloc.2023.1053555>
- United Republic of Tanzania. (2023). *Draft national ICT policy 2023*. Ministry of Information, Communication and Information Technology.
- Valcik, N. A., Sabharwal, M., & Benavides, T. J. (2021). Existing research on HRIS in public organisations. In *Human resources information systems* (pp. 33–45). Springer. https://doi.org/10.1007/978-3-030-75111-1_3
- Zulu, A. (2024). *Causes of employees' job dissatisfaction among health workers in selected public hospitals in Zambia* (Doctoral dissertation, The University of Zambia).