

Digitization of human resource records and service delivery in higher education institutions in Kenya

Digitalização de registros de recursos humanos e prestação de serviços em instituições de ensino superior no Quênia

Digitalización de registros de recursos humanos y prestación de servicios en instituciones de educación superior en Kenia

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Abstract: *Despite most Kenyan universities adopting digital systems such as ABNO and other ERP frameworks, they continue to deploy paper-based HR records for their operations. This results in risk of records tampering, loss inefficiencies and delays. This study explored the impact digitizing human resource records on service delivery within higher education institutions (HEIs). The study sought to: explore the influence of secure digital storage of HR records on service delivery in HEIs; determine the effect of ease of retrieval and accessibility of digitized HR records on service delivery; assess how record integrity and accountability arising from digitization influence service delivery; and evaluate the effect of space optimization and operational efficiency resulting from digitization on*

service delivery. Systematic Literature Review (SLR) hinged on the PRISMA framework was used to screen evidence from peer-reviewed studies, published between 2016 and 2026. Out of 342 records found, 40 relevant studies were selected and applied the Critical Appraisal Skills Programme (CASP) tool to evaluate them. The findings show a strong concurrence that digitization of HR records strengthens service delivery in HEIs through operational efficiency, improved security, accountability, and accessibility. Secure digital repositories bolster service continuity, data reliability, and protection, while enhanced accessibility results in institutional responsiveness and timely decision-making. Further, digitization improves trust and transparency through access controls and audit trails, while streamlining HR operations, optimizing storage space, and minimizing administrative workload. However, the effectiveness of digitization depends on institutional support, adequate infrastructure, technical capacity, and governance frameworks.

Keywords: Digitization; Records; Service delivery; Human resource management.

Resumo: Apesar da maioria das universidades quenianas adotar sistemas digitais como ABNO e outros frameworks ERP, elas continuam a implantar registros de RH em papel para suas operações. Isso resulta em risco de adulteração de registros, perda de ineficiências e atrasos. Este estudo explorou o impacto da digitalização dos registros de recursos humanos na prestação de serviços dentro das instituições de ensino superior (IES). O estudo buscou: explorar a influência do armazenamento digital seguro de registros de RH na prestação de serviços em instituições de ensino superior; determinar o efeito da facilidade de acesso e acessibilidade de registros digitalizados de RH na prestação de serviços; avaliar como a integridade dos registros e a responsabilidade decorrentes da digitalização influenciam a prestação de serviços; e avaliar o efeito da otimização do espaço e da eficiência operacional resultantes da digitalização na prestação de serviços. A Revisão Sistemática da Literatura (SLR), baseada no arcabouço PRISMA, foi utilizada para triar evidências de estudos revisados por pares, publicados entre 2016 e 2026. Dos 342 registros encontrados, 40 estudos relevantes foram selecionados e aplicados à ferramenta do Programa de Habilidades Críticas de Avaliação (CASP) para avaliá-los. Os resultados mostram uma forte concordância de que a digitalização dos registros de RH fortalece a prestação de serviços nas IES por meio da eficiência operacional, melhora da segurança, responsabilidade e acessibilidade. Repositórios digitais seguros reforçam a continuidade dos serviços, confiabilidade dos dados e proteção, enquanto acessibilidade aprimorada resulta em resposta institucional e tomada de decisão no tempo hábil. Além disso, a digitalização melhora a confiança e a transparência por meio de controles de acesso e trilhas de auditoria, ao mesmo tempo em que simplifica as operações de RH, otimiza o espaço de armazenamento e minimiza a carga de trabalho administrativa. No entanto, a eficácia da digitalização depende do apoio institucional, infraestrutura adequada, capacidade técnica e estruturas de governança.

Palavras-Chave: Digitalização; Recordes; Prestação de serviços; Gestão de recursos humanos.

Resumen: A pesar de que la mayoría de las universidades kenianas adoptan sistemas digitales como ABNO y otros marcos ERP, continúan desplegando registros de RRHH en papel para sus operaciones. Esto conlleva riesgo de manipulación de registros, pérdidas, ineficiencias y retrasos. Este estudio exploró el impacto de la digitalización de los registros de recursos humanos en la prestación de servicios dentro de las instituciones de educación superior (IES). El estudio buscó: explorar la influencia del almacenamiento digital seguro de los registros de RRHH en la prestación de servicios en las instituciones de educación superior; determinar el efecto de la facilidad de recuperación y accesibilidad de los registros de RRHH digitalizados en la prestación de servicios; evaluar cómo la integridad de los registros y la rendición de cuentas derivadas de la digitalización

influyen en la prestación de servicios; y evaluar el efecto de la optimización del espacio y la eficiencia operativa resultante de la digitalización en la prestación de servicios. La Revisión Sistemática de la Literatura (SLR), basada en el marco PRISMA, se utilizó para evaluar la evidencia de estudios revisados por pares, publicados entre 2016 y 2026. De los 342 registros encontrados, se seleccionaron 40 estudios relevantes y se aplicaron la herramienta del Programa de Habilidades Críticas de Evaluación (CASP) para evaluarlos. Los hallazgos muestran una fuerte coincidencia en que la digitalización de los registros de RRHH fortalece la prestación de servicios en las instituciones de educación superior mediante la eficiencia operativa, la mejora de la seguridad, la rendición de cuentas y la accesibilidad. Los repositorios digitales seguros refuerzan la continuidad del servicio, la fiabilidad y la protección de los datos, mientras que una mayor accesibilidad resulta en una capacidad de respuesta institucional y una toma de decisiones oportuna. Además, la digitalización mejora la confianza y la transparencia mediante controles de acceso y registros de auditoría, al tiempo que agiliza las operaciones de RRHH, optimiza el espacio de almacenamiento y minimiza la carga de trabajo administrativa. Sin embargo, la eficacia de la digitalización depende del apoyo institucional, una infraestructura adecuada, capacidad técnica y marcos de gobernanza.

Palabras clave: digitalización; registros; prestación de servicios; gestión de recursos humanos.

1. Introduction

The efficiency of service delivery within the higher learning landscape in Kenya depends on the efficacy, reliability and integrity of the administrative records. In HEIs human resource sections, administration and management of records is key for the hiring function, staff management, evaluations, strategic and welfare planning, promotions, and employee management (Azim, Yatin, Jensonray, & Ayub, 2018). The swiftness and accuracy of staff records processing directly influences service quality for management, staff and other stakeholders (Taurus & Wamae, 2022). In the last 10 years, the Kenyan HEIs have expanded significantly in terms of student population and human resource, resulting in stricter regulatory requirements from the Commission for University Education (CUE), the State Department of Public Service and other regulatory bodies. Likewise, this expansion has also increased the sophistication of HR documentation. While most universities have evolved digitally with enterprise resource planning (ERP) tools such as ABNO, they still depend on manual, paper-based records for crucial functions (Chepkemoi, Sang, Chumba, & Bett, 2025). Conventional filing systems make record retrieval risky and difficult by making them prone to damage, unauthorized access, misplacement, which then impedes HR responsiveness and delay service delivery.

Efficiency within HEIs can be bolstered through the systematic scanning and electronic storage of records (Wanjiru, 2023). In their study, Azim et al. (2018) demonstrate that electronic records management systems enhance workflow coordination, record retrieval and eventually, decision making. In Kenya, research shows that electronic records platform within the HR sector positively influence service reliability and employee performance (Chepkemoi, et al., 2025). Through digital technologies, the HR efficiency is enhanced through integrated performance appraisal, training, and recruitment functions, resulting in lower costs (Azim et al., 2018). Within the Kenyan HEIs, where most staff functions depend heavily on documentation, such transformations can improve institutional effectiveness.

Besides enhancing operations, digitizing HR records result in reduced costs for filing, printing, and storage (Taurus & Wamae, 2022). Electronic records also enhance accessibility and interoperability among various departments or sections within a HEI, resulting in enhanced responsiveness to staff inquiries and informed decision-making during audits and meetings, resulting in higher employee satisfaction, improved delivery service and better organizational performance

(Chepkemoi et al., 2025). While the benefits of digital systems are known, there is scanty empirical research on the effect of digitizing HR records on service delivery in higher learning institutions in Kenya. Current research focusses on the broad digital transformation in the public sector broadly, without looking at converting legacy HR records. This creates uncertainty about digitization's return on investment and its contribution to efficiency improvements.

Despite the integration of ERP platforms for handling HR tasks such as leave management and payroll by many HEIs in Kenya, there remains a strong dependence on physical documentation for critical HR records (Sistla, 2013). Crucial documents like meeting minutes, correspondence, appraisal forms, disciplinary reports, and appointment letters are still stored in physical files, occupying large office space, even with the capacity of digital systems (Chepkemoi et al., 2025). This continuous dependence on paper documentation poses a number of challenges that impede service delivery. To start with, manual retrieval of hard-copy documents consumes time, especially when information is needed abruptly for decision-making or when the staff in the registry are unavailable. Such delays result in increased turnaround times in addressing key administrative procedures and employee needs (Simwaka et al., 2025; Chepkemoi et al., 2025). Besides, paper records are prone to risks like loss, deterioration, water damage, fire and theft. The damage or loss of significant documents can interrupt operations and threaten an institution's continuity (Chepkemoi et al., 2025). Additionally, inconsistencies between digital summaries and physical files can cause fragmented information situations, where the most up-to-date records may only be found in physical form, weakening the efficacy of existing digital avenues (Azim et al., 2018).

Apart from administrative gaps, inadequate digitization limits accessibility. Working on urgent matters during decision making meetings becomes straining when physical records are required but not readily retrievable (Sistla, 2013). Besides, employees are usually bothered by the transparency and accuracy of the existing digital records, more so when they are unsupported by scanned, authentic documents acting as unalterable evidence (Azim et al., 2018). Whereas digitization is normally considered to enhance service quality and efficiency, there is scanty empirical research focusing on the impact of scanning and electronically depositing physical HR records on service delivery in Kenyan HEIs. With no evidence revealing the relationship between digitization and noticeable improvements, HEIs might not have the necessary justification and context to implement record digitization. Based on this background, the current study examined the digitization of human resource records and service delivery in higher education institutions in Kenya by: exploring the influence of secure digital storage of HR records on service delivery in higher learning institutions; determining the effect of ease of retrieval and accessibility of digitized HR records on service delivery; assessing how record integrity and accountability arising from digitization influence service delivery; and evaluating the effect of space optimization and operational efficiency resulting from digitization on service delivery.

While digitization is acknowledged as a platform for enhancing service quality, transparency, and, efficiency, existing studies have largely focused on HR information systems, electronic records management, and digital transformation in corporate organizations and public institutions. There is scarcity of knowledge on the specific digitization of physical HR records and its effect on service delivery within HEIs. Besides, the existing literature is twisted towards understanding individual outcomes such as operational efficiency, records security, accountability, or accessibility in isolation, offering limited comprehension of how these aspects collectively affect service delivery. There is also a dearth of synthesized evidence targeting the higher education context, especially in Kenya. This review addresses these gaps by systematically assessing the influence of HR records digitization on service delivery through: secure digital storage, operational efficiency, accessibility and retrieval, space optimization, accountability, and record integrity in higher learning institutions.

2. Theoretical Framework

This review is hinged on Digital Transformation Theory, which was proposed by Westerman, Bonnet, and McAfee in 2014. The theory postulates that organizations can attain enhanced service delivery, performance, innovation, and efficiency through the strategic adoption and implementation of digital technologies into their operations, structures, and processes. The theory does not perceive technology as an isolated tool, but as a process that encompasses organizational change that reshapes how organizations deliver services, make decisions, and create value. In this review, this theory explains how the digitization of HR records transforms service delivery across HEIs. The theory justifies why institutions that successfully digitize HR records witness improved service delivery outcomes. The review shows that digitization not only minimizes storage requirements and paperwork but also strengthens institutional effectiveness, responsiveness, and transparency through improved records management practices. The reviewed studies show that digital technologies such as digital databases, Human Resource Information Systems (HRIS), automated backup systems, and cloud-based repositories improve the management of personnel records by enhancing operational efficiency, security, accountability, and accessibility.

3. Methodology

In this study, a systematic literature review (SLR) approach was utilized to investigate the current research on the digitization of Human Resource (HR) records within higher education institutions. A systematic literature review is characterized by its structured, transparent, and repeatable process, which is used to synthesize evidence from various studies to address a specific research question. This method is especially beneficial for consolidating findings from diverse sources, pinpointing gaps in the existing literature, and forming conclusions based on thorough evidence (Tranfield, Denyer, & Smart, 2003).

To select pertinent and high-quality studies, a systematic search approach was employed in this review. The search concentrated on peer-reviewed journal articles, conference papers, and other academic sources that examine the digitization of HR records in higher education institutions and its effects on service delivery, efficiency, accessibility, and overall performance. The search process involved the following steps:

The review incorporated articles from prominent academic databases such as Google Scholar, Scopus, JSTOR, and SpringerLink. These databases were selected due to their extensive coverage of academic journals, particularly in the areas of information management, HR management, and digital transformation. A collection of keywords was utilized to locate relevant literature. These keywords included terms such as digitization of HR records, electronic HR systems, digital transformation in HR, records management in higher education, HR service delivery in universities, and efficiency and accessibility of HR records.

Inclusion criteria identified studies published in peer-reviewed journals and conferences; articles focusing on HR digitization within higher education institutions or similar environments; studies examining the impact of HR record digitization on service delivery, employee satisfaction, and operational efficiency; and studies published within the last decade (2016-2026) to ensure relevance to current technological advancements. Exclusion criteria excluded studies not in English or lacking full-text availability; and opinion pieces, commentaries, or editorials without empirical data. Initial searches identified articles based on titles, abstracts, and keywords. Full-text versions of potentially relevant articles were reviewed to assess their alignment with the research objectives. Studies that did not meet the inclusion criteria were excluded from further review.

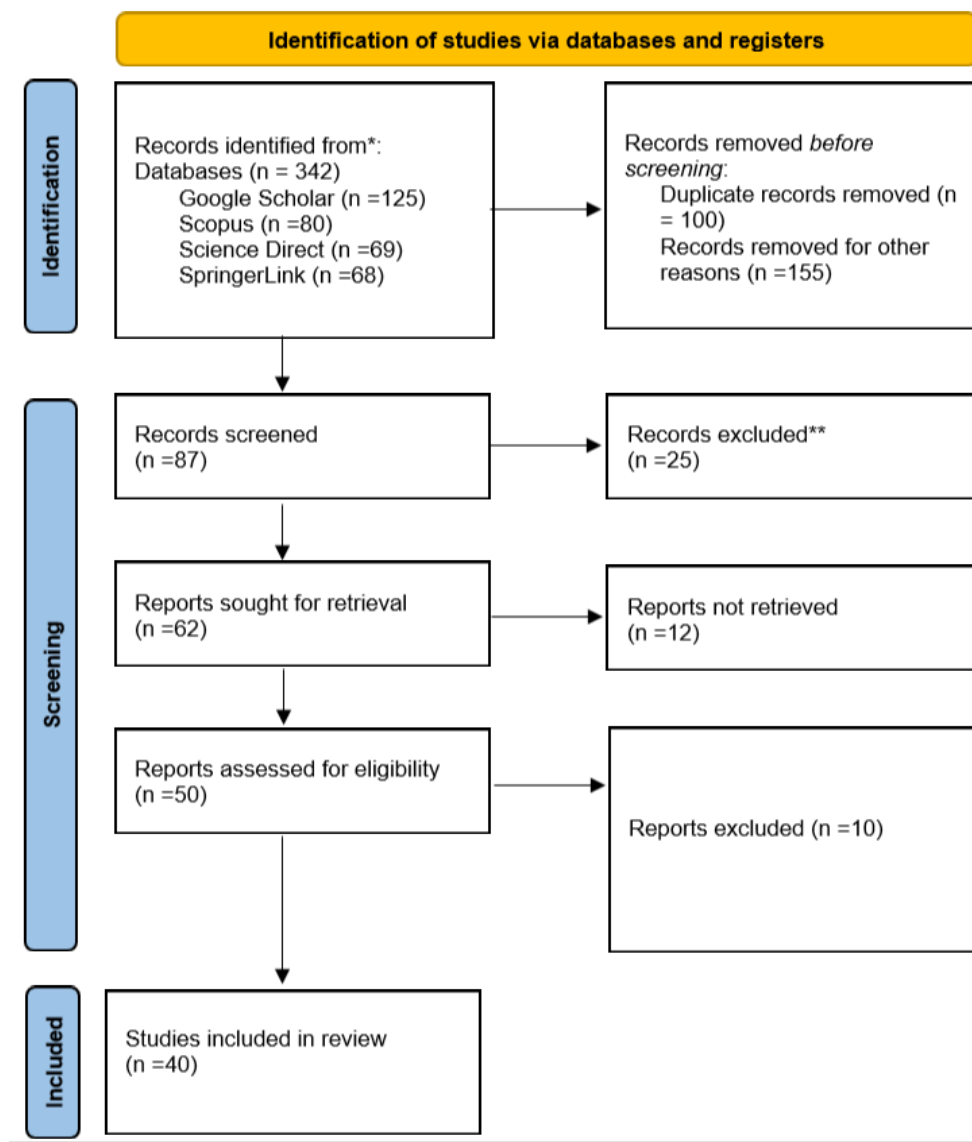
In order to improve the transparency and the reproducibility of the existing SLR, the PRISMA 2020 guidelines for systematic literature reviews was applied (Cramarenco et al., 2023). Through the implementation of this methodology, 342 records were identified from Scopus, Google Scholar,

ScienceDirect, and SpringerLink between February and March 2026. Out of these records, 255 articles were excluded during the title and abstract screening process, leading to 87 articles that were included for further consideration. Of these 87 articles, 17 were excluded during the journal screening process, leading to 40 articles being included for the review. Within these 40 articles, 30 contained empirical studies that were conducted within identifiable national contexts. These 30 articles were included in the current SLR for the assessment of the distribution of these studies by country. The remaining 10 articles consisted of theoretical frameworks, references to methodologies within the field, books, and studies that were performed on a global scale and did not focus upon a specific country. These articles were utilized in the preparation of the manuscript, but were excluded from the country-specific distribution analyses.

The search used Boolean operators (AND, OR) and combinations of the following keywords: "HR records", "human resource records", "digitization", "personnel records", "electronic records management", "digitalization", "service delivery", "HRIS", "efficiency", "universities", and "higher learning institutions".

Figure 1 shows the PRISMA 2020 flow diagram exhibiting the study selection process.

Figure 1 – Identification of Studies



Source: Adapted to Page et al. (2021).

To ensure dependability, thoroughness, and trustworthiness of the evidence in the SLR, a quality evaluation of the chosen studies was undertaken. This aimed to determine the methodological integrity and pertinence of each of these studies in relation to the study topic. The quality of the studies was assessed using the Critical Appraisal Skills Programme (CASP) checklist. In this study, the CASP checklist was modified to assess the following aspects of the research studies that were published: The objectives of the study and whether they related to the issue of digitization of human resource records or services; Whether the research study was suitable for investigating the proposed topic; the methodological rigor of the study; the validity and reliability of the research study, and; the relevance of the study in relation to the topic of the literature review.

Based on these criteria for quality evaluation, each of the article was classified according to their methodological strength and relevance to the topic of the review. Studies with clear objectives, suitable methodologies and credible findings were included in the review for analysis. Studies that did not meet these criteria were excluded.

4. Findings

4.1. Secure Digital Storage of HR Records and Service Delivery in Higher Learning Institutions

Securing HR records in digital repositories has become critical in improving service delivery within HEIs. As institutions migrate from paper-based records to digital systems, there is need to safeguard and protect sensitive staff data in secure storage systems such as automated backup systems, encryption protocols, cloud computing and authentication controls. Research reveals that safeguarded storage secures employee files while enhancing reliability, transparency, and responsiveness in service delivery. From the previous studies, Al Shobaki et al. (2017) found that Palestinian universities relied on e-HRM systems to enhance their HR records integrity through cloud-based systems, secure authentication processes, and encrypted databases. Through these procedures, risks related to physical file storage are reduced, for example, document deterioration, theft, unauthorized access, and damage. Al Shobaki et al. (2017) exhibit that secure digital processes safeguarded the availability and integrity of staff information, thereby enhancing administrative decision making and staff HR services.

In another study, Haji and Ahmed (2017), demonstrate how web-based Human Resource Management Information Systems (HRMIS) enhanced the security and retrieval of staff in Kurdistan universities. Cloud storage and encrypted digital storages ensured real time access of employee records, enhancing efficient response to administrative requests by HR sections. The compounded services entailing quick accessibility and safeguarded storage emphasize the pros of digital tools in boosting operational efficiency and data protection. Relatedly, Westphal et al. (2020) postulate that web-based HRMIS platforms minimize the threats that emanate from paper files. Physical records are prone to destruction and deterioration while digital repositories integrate redundancy measures like distributed storage and automated backups architectures. These mechanisms ensure continuity of operations even when systems fail. Besides, authentication systems and access controls thwart unauthorized entry into staff files, boosting confidentiality among employees.

In their study, Hosseini and Nematollahi (2013) underscore the role of secure digital repositories in ensuring data integrity. Through digital systems in HR, HEIs maintain accurate staff records through secured editing privileges, version control and audit trails. The fact that HR records face regular updates on employee training outcomes, promotions, and salary adjustments require sustenance of accurate data for transparent decision-making. When this happens, staff trust is bolstered as their files are not only accurate but they are also traceable and safeguarded from unauthorized interferences.

Besides bolstering data integrity, digital repository systems also enhance institutional efficiency and performance. According to Sikira and Mishael (2024), there is a strong relationship between HRIS staff record management and the performance of institutions ($r=0.522$). From their study, regression analysis shows that HRIS explains 62.2% of the institutional performance variance. They further found that HRIS systems enhanced leave records management, movement tracking, and correspondence records administration. Relatedly, Kamau (2020) demonstrate that proper management of records boosts organizational service delivery by ensuring ease of accessibility during decision making. From the fact that records are a crucial tool for service provision and policy formulation, organized and secure storage of files ensure timely provision of services by HEIs. Research underscores the significance of secure repository systems in the performance of institutions. Khartoon et al. (2025) states that digital infrastructure improves employee data management through protected analysis and processing. Therefore, digital HR systems minimize administrative tasks while enhancing data accuracy. In a similar study, Kauzeni et al. (2025) found that digital systems enhance the strategic alignment of the HR functions in public organizations by ensuring secure management of employee information. While digital repositories enable efficient workforce planning, there is need to ensure institutional readiness and leadership commitment.

Digital storage systems also bolster service continuity and institutional resilience. According to Latupeirissa et al. (2024), secure data management infrastructure enhances accountability and service quality in public services. During disruptions, institutions are still able to sustain service continuity through cloud-based repositories. Secure digital storage tools, therefore, enhance institutional reliability.

However, literature also pinpoints some of the hinderances to effecting secure digital repositories in the Global South. Within Malawian universities, Chaputula (2022) highlights how gaps in governance frameworks, limited cybersecurity considerations, and insufficient infrastructure results in hindrances in electronic records management. While efforts have been displayed in digitizing systems, inadequate staff training and insufficient technical expertise hinders efficacy of secure digital storage systems. In Nairobi County, Kenya, Ongwenyi et al. (2018) pinpoint how inadequate ICT adoption and limited management support have impeded the migration to digital repository systems, hindering potential service delivery enhancement. Musandu (2022) emphasizes the significance of proper archival frameworks, infrastructure, and policies, without which digital records might face poor management, data loss, and technological obsolescence.

4.2. Ease of Retrieval and Accessibility of Digitized HR Records and Service Delivery

Higher education institutions can leverage from digital HR architecture through enhanced accessibility and retrieval of digitized files. By replacing paper-based and conventional records with electronic databases, digitization improves the speed, accuracy and responsiveness of administrative tasks (Al Shobaki et al., 2017). From research, digital HR databases minimize the time required to process staff data. Setiadi et al. (2022) note the significance of HRIS in availing real time access to files, reducing manual-based delays. Universities that have implemented HRIS have enhanced performance evaluation and payroll processing as employees can swiftly access documentation, minimizing administrative impediments.

In South African HEIs, Telukdarie and Munsamy (2022) found that digitized HR procedures enhanced accessibility of staff data. HRIS embedded within institutional systems ensures uninterrupted interdepartmental sharing of employee files. Through integration, information can be retrieved remotely during operations and meetings, enhancing administration decision-making and departmental coordination. In Palestinian higher learning institutions, Al Shobaki (2017) found that HRIS bolstered administrative responsiveness and payroll management. By minimizing manual searches, HR sections exhibited efficiency in processing requests, enhancing the quality-of-service delivery.

In their study, Setiadi et al. (2022) found that HRIS made it possible for administrators to access staff files quickly and easily. In turn, this access enabled timely decisions on strategic planning, enhancing operational efficiency, and employee promotions. Relatedly, Sikira and Mishael (2024) state the role of HRIS in amplifying the dissemination of information and the minimization of work duplication in universities. Their analysis reveals a significant positive link between records management and organizational performance ($r=0.522$). Their findings show that enhanced accessibility reinforced service delivery and workflow efficiency.

In their study of HR functions digitization within County Governments in Kenya, Chepkemai et al. (2025) found that digitization influenced staff performance ($\beta = 0.340$, $p < 0.05$). Digital HR systems explained 19.7% of the change in the performance of the staff ($R^2 = 0.197$). Respondents highlighted that the digital ecosystem within their operations amplified timeliness of service delivery, teamwork and efficiency in services. In a related study in Jordanian HEIs, Al-Dmour et al. (2025) found that integration of digital functions bolstered educational quality and operational efficiency. This occurred through swift access to institutional information, which accelerated administrative functions.

In their report, Latupeirissa et al. (2024) reveal that digital systems enhance operational efficiency within the public entities by enabling access to real time information. Institutions with integrated digital frameworks exhibited enhanced departmental coordination and reduced turn-around time for service delivery. This, according to Latupeirissa et al. (2024), facilitates administrators to increase their response time to their clients' requests. These findings are also supported by Hendrawan et al. (2025), who found a positive correlation between digital records retrieval systems and HR performance, productivity, and responsiveness ($R=0.374$).

In another study, McCarthy et al. (2023) pinpoint "intelligent and personalized platforms" as significant platforms augmenting data accessibility within organizations. These infrastructures integrate data and information into digital dashboards that enable quick access of information. As the authors further state, organizations with consolidated digital platforms braced COVID-19 to maintain commendable service delivery through remote systems. Relatedly, Taurus and Wamae (2022) state how service delivery in the Ministry of Lands in Kenya was enhanced through systems digitization, which catapulted reduction in delays and faster retrieval of information. Further, digitized platforms bolstered efficiency and transparency in service delivery, showing the wider significance of digital approachability in administrative functions.

4.3. Digitization, Record Integrity, Accountability and Service Delivery

The accountability and integrity of personnel records are key in delineating the role of digitization of HR files in enhancing service delivery within universities. Staff records have confidential information on employee professional growth, disciplinary measures, performance reviews, remunerations, and contracts (Haji and Ahmed, 2017). Through digitization, the files security and accuracy is reinforced by streamlining automated monitoring controls, structured data systems, access controls, and audit trails. These functions are not available in paper-based systems. Al-Shobaki et al. (2017) display the role of electronic HRM practice in enhancing institutional operations accountability. Their study reveals how e-HRM functionalities strengthened accountability within universities in Palestine by heightening automated audit trails to any alterations in staff records. This traceability minimizes any data manipulation and solidifies the verification of administrative decisions, reducing conflicts emanating from staff records.

Telukdarie and Munsamy (2022) show that digitized HR systems enhance organizational governance through controlled access protocols and systematic documentation. Institutions that have implemented digital ecosystems realize the confidentiality of their staff data by ensuring that only authorized officers can change staff information, with the alterations being logged. These measures endorse accountability among HR personnel and heighten institutional transparency, resulting in

increased consistency in HR processes. In a related study, Haji and Ahmed (2017) demonstrate increased staff confidence in HR procedures within HEIs that implemented web-based Human Resource Management Information Systems (HRMIS). Staff regarded digital systems as more transparent due to how record updates were secured and traced, minimizing record manipulation complaints and upscaling satisfaction with HR services.

Digital systems bolster record integrity by strengthening the protection and accuracy of records. Westphal et al. (2020) display the composition of HRMIS infrastructure, which encompass real-time tracking aspects and version control for highlighting updates. These protocols minimize risks associated with tampering of files ubiquitous in paper-based systems. Besides, digital frameworks are evidentiary reliable in disciplinary audits and proceedings, reinforcing workplace relations and institutional trust.

In their study, Ardiansyah et al. (2023) display the role of digital accountability in streamlining institutional performance through trust consolidation between staff and HR sections. Their study demonstrates that when the HR functionalities advance transparency and fairness in administrative tasks, the staff perceive the institutional decision-making framework as fair, heightening morale and enhancing service delivery. These findings are further supported by Sikira and Mishael (2024), whose study demonstrate that HRIS integration boosted transparency in the management of staff files in Tengeru Institute in Tanzania, demonstrating a nuanced correlation with organizational performance ($r=0.522$). Digital HR ecosystem minimized the duplication of functions and enhanced service delivery, accountability, and workforce planning.

Relatedly, Chepkemai et al. (2025) showcase the critical role of digitized HR platforms in enhancing workforce management, recruitment, and transparency within County Governments in Kenya. From their analysis, there is a positive and significant correlation between digitization and staff performance ($\beta = 0.340$, $p = .000$). Their findings show that digital frameworks facilitate audit trails, thereby building trust by minimizing employee disputes. Relatedly, Al-Dmour et al. (2025) educational quality and operational efficiency acted as intervening variables in the link between institutional transformation and digital transformation in HEIs in Jordan ($\beta = 0.221$ and $\beta = 0.155$). This demonstrates the critical role of digital transparency in service outcomes and organizational credibility.

In their study, Latupeirissa et al. (2024) exhibit the role of digital systems in institutional accountability, which emanates from automated documentation and transparent workflows. Digital transformation necessitates data verification and tracking of changes, solidifying public trust in service delivery and minimizing manipulation threats. For efficient operations and records integrity, there is need to ensure proper records management. In their research, Hendrawan et al. (2025) demonstrate the significance of digitized records management procedures in heightening HR accountability through reliability. Systematic maintenance of records enhances institutional transparency in decision making, enforce compliance and monitoring metrics. In a related study, McCarthy et al. (2023) underscores the significance of governance and leadership in enabling accountability in digital frameworks. Their findings further show that digital platforms enhance accountability through data driven decision making framework and transparent reporting. These attributes facilitate institutions to monitor performance and evaluate service quality. However, the findings emphasize on ensuring proper governance and leadership to necessitate responsible application of digital technologies.

For the digitization of HR processes to work efficiently, there is need to have effective policies in place. In his study, Andoh (2022) show that gaps in official HR records policies undermined record integrity in Ghanaian HEIs. He insists on the need for elaborate management protocols and conformance to the ISO 15489 procedures. Relatedly, Singun (2025) states that limited leadership

commitment, insufficient digital skills and weak governance frameworks can compromise digital platforms in HEIs.

4.4. Digitization, Space Optimization, Operational Efficiency and Service Delivery

Digital transformation in HR records management enhance service delivery in HEIs by improving operational efficiency and optimizing space. In university HR sections, personnel have conventionally depended on paper-based record frameworks, which require massive storage spaces and much administrative work for maintaining and organizing files. Through digitization platforms, these procedures are unburdened by transforming documents into electronic formats stored in cloud systems or digital repositories, minimizing administrative and physical burdens.

Al-Shobaki et al. (2017) shows that digitization attenuates physical storage requirements while reinforcing administrative workflows. In their study in Palestinian HEIs, the researchers found that operationalizing e-HRM platforms mitigated the need for physical storage. Through electronic records storage, HEIs could repurpose the available space for other activities instead of storing files, enhancing working conditions and organizational layouts. In a related study, Setiadi et al. (2022) highlight the importance of Human Resource Information Systems (HRIS) buy-in in HEIs in Indonesia in enhancing operational efficacy. By automating HR activities, HEIs are able to attenuate the processing time in administrative tasks by 40%, reducing paperwork and manual functions. Resultantly, HR personnel concentrate on strategic tasks like staff development and workforce planning, bolstering service delivery in these institutions.

In another study, Haji and Ahmed (2017) reveal how digital HRMIS enhanced efficiency in Kurdistan universities by alleviating processing errors and hastening workflows. Digitized platforms enabled speedy processing of evaluations, promotions and payroll, bolstering responsiveness to staff needs. Digital record platforms mitigate maintenance costs, storage expenses, and printing costs. HEIs that have rolled out digital HR systems can repurpose resources to other functions such as infrastructure improvement, research support, and academic development, building towards a strong service delivery capacity and institutional productivity.

A study by Sikira and Mishael (2024) further corroborate the assertion that digitization enables operational efficiency. Their findings showed that effectuating digital frameworks minimized the duplication of tasks and improved strategic goals in HEIs. Their research demonstrated a strong explanatory power of the digital platforms on the performance of institutions ($R^2 = 0.622$), pointing towards efficient enhancement correlated to digitized record management frameworks. Hendrawan et al. (2025) found that digitized systems bolster HR productivity by solidifying classification systems and mitigating files processing time. Improving service delivery and optimizing space results in similar outcomes. Henry and Njenga (2021) demonstrate that digitized records management platforms enable firms to handle information without being limited by paper-based systems.

5. Discussion

The reviewed studies reveal a strong consensus that digitization of HR records significantly bolsters service delivery in higher learning institutions through enhanced record security, operational efficiency, accountability, and accessibility. Across many contexts including Kurdistan, Indonesia, Palestine, Jordan, South Africa, Tanzania, and Kenya, digital HR systems consistently enhanced institutional responsiveness and improved the management of personnel information.

One of the prominent findings is that secure digital storage strengthens the availability, confidentiality, and integrity of HR records. Research consistently reported that digital repositories secured employee information through authentication protocols, cloud storage, encryption, automated backups, and access controls. These mechanisms minimized paper-based risks related with manipulation, loss, unauthorized access, and deterioration. Resultantly, institutions witnessed

increased transparency, enhanced administrative decision-making, and greater employee confidence in HR processes. The convergence of findings in many studies reveal that record security is a foundational need for efficient service delivery in higher education institutions.

The review further shows that retrieval of digitized records and accessibility establish one of the most noteworthy benefits of digital transformation. Research across countries exhibits faster responses to administrative requests, reductions in processing time, enhanced interdepartmental coordination, and improved access to employee information. The findings show that digitized HR systems enhance organizational agility by minimizing delays emanating from manual record management and facilitating real-time information access. This pattern emerged from both developed and developing country contexts, indicating that accessibility enhancements are among the most universally recorded benefits of HR digitization.

Besides, another significant pattern stemming from the literature is the relationship between digitization, accountability, and institutional trust. The studies reviewed show that digital systems enhance accountability through controlled access protocols, audit trails, monitoring mechanisms, and version control. These features enhance confidence in administrative decisions, strengthen transparency in HR processes, and minimize opportunities for record manipulation. Consequently, HEIs are better positioned to sustain organizational credibility, resolve disputes, and manage employee relations.

The findings further reveal that digital systems bolster the transparency, reliability, and availability of information applied in administrative processes. Enhanced accessibility ensures timely decision-making, while access controls and audit trails enhance trust and accountability. These outcomes support the wider worldview that effective records management serves as a strategic organizational resource capable of streamlining service delivery and institutional performance. The findings therefore support existing perspectives that technological capability, governance, and information quality are significant determinants of organizational effectiveness.

From the findings, it can also be deduced that digitization strengthens operational efficiency, which resource optimizes resources. Digital HR systems improve workflow automation, reduce paperwork, decrease storage costs, and minimize duplication of tasks. Institutions are therefore able to reroute resources toward strategic functions such as service improvement, staff development, and workforce planning. This finding reinforces the argument that digital records management should not be perceived merely as a records storage initiative but as a strategic management platform capable of strengthening institutional performance.

A crucial pattern developing from the review is that HR records digitization benefits are not uniformly attained across institutional contexts. Research conducted in Indonesia, Jordan, Palestine, and South Africa generally reported stronger accomplishments in service delivery, accountability, and efficiency due to relatively mature organizational support and digital infrastructures systems. In contrast, studies from Ghana, Malawi, and Kenya reported persistent challenges stemming from insufficient management commitment, inadequate ICT infrastructure, weak governance frameworks, and limited technical capacity. These contextual differences show that the success of digital records management does not just depend on technology adoption but also governance structures, institutional readiness, the existence of appropriate policy and leadership support. Resultantly, digitization should be perceived as a socio-technical transformation process and not a purely technological intervention. This corroborates the Digital transformation theory's emphasis that successful digital transformation needs both technological adoption and organizational transformation to attain sustainable performance improvements and service delivery.

6. Conclusion

The review concludes that digitization of HR records is a strategic enabler of service delivery in HEIs. The study shows that operational efficiency, secure digital storage, improved accountability, and enhanced accessibility collectively enhance the effectiveness, reliability, transparency, and responsiveness of HR services. The findings advance the body of knowledge on digital transformation by showing that digitization of HR records transcends records preservation to become a significant driver of service quality and institutional performance. Practically, the study pinpoints the need for HEIs to invest in records management systems, governance frameworks, and secure digital infrastructure to maximize service delivery outcomes. From a policy perspective, the findings emphasize the significance of capacity building, institutional readiness, and supportive digitization policies in propelling successful digital transformation within higher education institutions.

From the conclusion, higher education institutions should roll out secure digital storage infrastructure, including robust access control mechanisms, automated backup systems, encryption technologies, and cloud-based repositories to safeguard HR records against cyber threats, data loss, and unauthorized access. Higher education institutions should also enhance the accessibility and retrieval of digitized HR records through user-friendly search and retrieval mechanisms, centralized digital repositories, and integrated Human Resource Information Systems (HRIS). Further, higher education institutions should institute comprehensive records management governance and policy frameworks that promote transparency, accountability, and record integrity. Finally, higher education institutions should hasten the digitization of HR records and automate routine HR processes to improve operational efficiency, minimize reliance on paper-based systems, minimize administrative workload, and optimize physical storage space.

Future studies should conduct empirical investigations within higher learning institutions to assess the actual effect of secure digital storage systems on administrative efficiency, staff satisfaction, and HR service delivery. Future researchers should also investigate the moderating role of factors such as and institutional policies, leadership commitment, staff digital competencies, and ICT infrastructure in determining the effectiveness of digitized HR records management systems. Besides, future studies should also adopt comparative approaches to assess the implementation and outcomes of digitized HR records management across public and private higher learning institutions.

This review was limited to secondary data, which hindered the ability to capture real-time practices and experiences within higher learning institutions. The study was also restricted to studies published in English, thereby excluding potential evidence reported in other languages.

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