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Abstract

Purpose: The study examined how Kenya's Government Human Resource Information System (GHRIS) influences HRM practices in public service institutions. Established in 2011 to enhance efficiency, transparency, and accountability, GHRIS was introduced amid persistent challenges, including fragmented employee records, manual leave administration, payroll delays, weak performance monitoring, and limited access to reliable human resource information, which hindered effective HR service delivery.

Methodology: The target population comprised 327 human resource officers from public service institutions, including 280 officers from state corporations and 47 officers from county governments. Stratified random sampling was used to select 180 Human Resource Officers to participate in the study. Data were collected using structured questionnaires and analyzed through descriptive statistics, Pearson's correlation, and multiple regression analysis. The multiple regression model was statistically significant, $F(4,175) = 128.252, p < .001$, $F(4,175) = 128.252, p < .001$, indicating that the four GHRIS dimensions jointly explained 74.6% of the variation in HRM practices ($R^2 = .746$, $R^2 = .746$; adjusted $R^2 = .740$, $R^2 = .740$).

Findings: All four GHRIS dimensions were positively and significantly associated with HRM practices. Payroll management recorded the strongest relationship with HRM practices ($r = .752, p < .001$, $r = .752, p < .001$), followed by accessibility of HR services ($r = .744, p < .001$, $r = .744, p < .001$), leave management ($r = .737, p < .001$, $r = .737, p < .001$), and performance management ($r = .727, p < .001$, $r = .727, p < .001$). The study reported improvements in payroll accuracy, access to pay slips, performance appraisal documentation, leave administration, human resource communication, employee satisfaction, and overall HR service delivery. Therefore, the study concludes that the effective implementation and utilization of GHRIS are strongly associated with improved HRM practices in Kenyan public service institutions.

Unique Contribution to Theory, Practice and Policy: The study recommends strengthening the integration of GHRIS across public institutions, increasing investment in ICT infrastructure and system security, and providing continuous user training, technical support, system monitoring, and regular system improvements. These measures would strengthen the effective utilization of GHRIS and support more efficient, transparent, and accountable digital HR service delivery.

Keywords: Government Human Resource Information System (GHRIS), Human Resource Management Practices, Payroll Leave Management, Public Service

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INTRODUCTION

Human resource management (HRM) is a critical function within public institutions, supporting employee administration, payroll processing, performance management, leave administration, and access to human resource services. However, public institutions continue to face challenges associated with labor-intensive processes, fragmented employee records, limited decision-support systems, and weak integration of HR databases. These challenges can result in delays, data inconsistencies, increased administrative workloads, and weaknesses in accountability and decision-making (Mollel & Rutenge, 2024; Ong'injo & Komen, 2024; Hussein & Jaaffar, 2024). Strengthening the integration and digitization of HR systems is therefore increasingly important for improving efficiency, transparency, data accuracy, and accountability in the public sector.

Globally, digitalization of HR functions has increasingly been adopted as a strategic approach to improving HRM efficiency and organizational performance. Integrated human resource information systems (HRIS) support functions such as payroll processing, leave administration, performance appraisal, employee training, and access to timely information for planning and decision-making (Raja et al., 2024). However, effective adoption and utilization of digital HR systems remain challenging in many developing countries because of inadequate technological infrastructure, limited user awareness and digital skills, and resistance to technological change (Mollel & Rutenge, 2024). In Africa, evidence indicates that digital HRM can reduce administrative costs, improve communication, and accelerate HR processes, although its effectiveness depends on digital literacy, reliable infrastructure, leadership support, appropriate system design and maintenance, and alignment with organizational policies (Amoako et al., 2023; Kyebiyala & Rutenge, 2024; Twinamasiko, 2026).

In Kenya, the Government Human Resource Information System (GHRIS) represents an important effort to modernize and professionalize HRM in the public service. The system was introduced to replace laborious and fragmented HR processes with a centralized platform supporting functions such as payroll management, performance appraisal, leave administration, employee records, and employee self-service (Kimani & Gathenya, 2023). Through GHRIS, employees can access services such as leave applications, online pay slips, and personal information updates, while HR officers can use the system for staff records management, reporting, recruitment-related processes, and verification of staffing information. The effectiveness of these functions, however, depends on adequate technological infrastructure, user training, system integration, data quality, and effective system utilization (Ndegerege & Wanyoike, 2024; Muoti et al., 2025).

Previous studies in Kenya have examined HRIS adoption and utilization in public institutions, including universities, independent commissions, and TVET institutions. Much of this research has focused on specific HR functions such as payroll administration, performance appraisal, training, and leave management. For example, Muoti et al. (2025) found a significant relationship between e-payroll administration and employee performance, while e-performance appraisal did not have a statistically significant effect. Ong'injo and Komen (2024) examined challenges in implementing performance appraisal among trainers in Kenyan TVET institutions. Although these studies provide useful evidence on digital HR systems and individual HR functions, they provide

limited evidence on the combined role of GHRIS functionalities in shaping overall HRM practices across the Kenyan public service.

Statement of the Problem

The Government Human Resource Information System (GHRIS) was introduced to centralize HR information and improve the efficiency, transparency, and accountability of HRM in Kenya's public service. By integrating payroll management, performance management, leave administration, and accessibility of HR services, the system is expected to improve the accuracy and timeliness of HR processes and support informed decision-making Manyura & Makokha, (2023). However, the expected benefits of GHRIS have not been fully realized across all public institutions.

Recent evidence points to continuing implementation and governance challenges. A 2026 government audit reported irregular payroll records, weak system integration, incomplete migration of some state corporations, unauthorized changes to payroll records, and inadequate cybersecurity controls Njaaga (2026). Similar challenges have been reported in devolved public institutions, where separate HR systems continue to affect consistency in recruitment and payroll administration (Ministry of Health, 2023). These challenges raise concerns about the extent to which GHRIS is being effectively utilized to improve core HRM practices in public institutions.

Although previous studies have examined HRIS adoption and individual HR functions in Kenya, limited empirical evidence exists on how specific GHRIS functionalities collectively relate to HRM practices across public institutions. In particular, insufficient attention has been given to the combined role of payroll management, performance management, leave management, and accessibility of HR services in explaining variations in HRM practices. This creates an important empirical gap, particularly given the differences among public institutions in administrative structures, levels of decentralization, technological capacity, and access to digital services.

Therefore, this study sought to evaluate the effect of GHRIS on HRM practices in Kenyan public institutions, focusing on payroll management, leave management, performance management, and accessibility of HR services.

METHODOLOGY

The study adopted a sequential explanatory mixed-methods design, comprising an initial quantitative phase followed by a qualitative phase, consistent with the approach described by Creswell and Creswell (2023). In the first phase, quantitative data were collected through a structured questionnaire administered to human resource officers in selected Kenyan public service institutions. A cross-sectional survey design was employed to examine the relationship between the functions of the Government Human Resource Information System (GHRIS) and human resource management (HRM) practices. The quantitative findings provided the basis for identifying key relationships, patterns, and areas requiring further explanation.

The second phase involved qualitative analysis of responses to open-ended questionnaire items. These responses were examined thematically to provide contextual explanations and deeper insights into the quantitative findings, particularly regarding respondents' experiences with GHRIS implementation and utilization in payroll administration, leave processing, performance

appraisal, accessibility of HR services, implementation challenges, institutional support, and user experience. The qualitative findings were subsequently integrated with the quantitative results through an explanatory follow-up matrix, whereby major quantitative findings were matched with relevant qualitative themes and respondent perspectives. This integration enabled the study to explain not only the observed quantitative relationships but also the contextual factors underlying those findings, thereby supporting the classification of the study as a sequential explanatory mixed-methods study.

The target population comprised human resource officers employed in selected Kenyan public entities that utilize the Government Human Resource Information System (GHRIS). The Kenyan public service comprises ministries, independent offices and commissions, state corporations, county governments, and disciplined forces. However, the study focused on human resource officers in county governments and state corporations because these institutions have substantially implemented GHRIS in their operations, including payroll administration, leave management, employee records, and performance management. The target population consisted of 327 human resource officers, comprising 47 officers from county governments and 280 officers from state corporations.

The sampling frame comprised the official lists of human resource officers obtained from the selected county governments and state corporations that had implemented GHRIS. Probability sampling was employed to provide each eligible member of the target population with a known opportunity of selection (Saunders et al., 2023). The study employed stratified random sampling, whereby the target population was divided into two strata: county governments and state corporations. Proportionate allocation was subsequently used to determine the sample size for each stratum. As presented in Table 1, state corporations constituted the larger stratum, with 280 human resource officers, from whom 154 respondents were selected. County governments comprised 47 human resource officers, from whom 26 respondents were selected. The total target population was therefore 327 human resource officers, while the overall sample comprised 180 respondents.

The sample size was determined using Yamane's (1967) formula for a finite population:

$$n = N / [1 + N(e^2)],$$

where:

n is the sample size

N is the population size

e is the margin of error.

$$\begin{aligned} \text{Therefore, } n &= 327 / [1 + 327(0.05^2)] \\ &= 327 / 1.8175 = 179.9. \end{aligned}$$

The respondents were 180 human resource officers.

Table 1: Distribution of Target Population and Sample Size by Institution Stratum

Stratum	Population	Sample
State corporations	280÷327	154
County government	47÷327	26
Total	327	180

Completed questionnaires were examined for completeness, consistency, accuracy, and missing responses. Responses were coded numerically using Microsoft excel before entry into SPSS Version 30. Likert scale responses were coded from 1 (Strongly Disagree) to 5 (Strongly Agree). Data were classified according to the study variables: Payroll Management Performance Management, Leave Management, Accessibility of Services, Human Resource Management Practices. the closed questionnaire responses were subjected to analysis using descriptive statistics such as frequencies, percentages, mean and standard deviation. Demographic variables were analyzed separately. Quantitative data were analyzed using SPSS Version 30. Descriptive statistics included, Frequencies, Percentages, Means, Standard deviations. Inferential statistics comprised, Pearson Product Moment Correlation Multiple Linear Regression. Correlation analysis determined the strength and direction of relationships between study variables. Multiple regression established the individual and combined effects of the four GHRIS functions on HRM practices. Statistical significance was tested at 99% confidence level ($p \leq 0.01$). The survey was conducted on a voluntary basis, the respondents were informed about the objective of the research prior to completing the questionnaire. At the beginning of the questionnaire, a consent statement was included for the respondent's online consent. respondents were under no obligation to give their names or personal details. the study complied with data protection requirements, with confidentiality maintained by ensuring that the responses were used purely for academic purposes.

RESULTS AND DISCUSSION

The study targeted Human Resource Officers employed in selected Kenyan public entities that had adopted and implemented the Government Human Resource Information System (GHRIS). Kenya's public service includes ministries, independent offices and commissions, state corporations, county governments, and disciplined forces. However, the study focused on Human Resource Officers in county governments and state corporations because these institutions have substantially utilized GHRIS in key human resource functions, including payroll administration, leave management, employee records management, and performance management.

The target population comprised 327 Human Resource Officers, including 47 officers drawn from the 47 county governments and 280 officers from selected state corporations that had implemented GHRIS. The sampling frame was developed from official lists of Human Resource Officers obtained from the respective county governments and state corporations. These officers were considered appropriate respondents because of their direct involvement in the implementation and utilization of GHRIS within their respective institutions. Probability sampling procedures were used to provide each eligible member of the target population with a known probability of selection (Saunders et al., 2023). From this target population, a sample of 180 Human Resource Officers was determined and selected for participation in the study.

Table 2: Demographic Information

Demographic Variable	Category	Frequency	Percentage %
Gender	Male	83	49.2%
	Female	86	50.8%
Age	20-29 years	34	20.0%
	30-39 years	73	43.3%
	40-49 years	43	25.6%
	Above 50 years	19	11.1%
Education level	Diploma	37	22.0%
	Bachelor's degree	78	46.1%
	Master degree	44	26.1%
	Doctor of philosophy degree	10	5.6%
Years of work experience	<1year	9	5.6%
	1-5 years	39	22.8%
	6-10 years	67	39.4%
	11-15 years	29	17.2%
	>15years	25	15.0%
Institution type (respondents)	County government	100	59.4
	State corporations	69	40.6

Demographic Characteristics of Respondents

Table 2 presents the demographic characteristics of the respondents in terms of gender, age, educational level, work experience, and institution type. The findings provide an overview of the characteristics of the Human Resource Officers who participated in the study and provide an important context for interpreting the subsequent findings on the implementation and utilization of the Government Human Resource Information System (GHRIS).

With regard to gender, the respondents were relatively evenly distributed between females and males. Female respondents accounted for 86 (50.8%), compared with 83 (49.2%) male respondents. The relatively balanced distribution indicates that the study captured perspectives from both male and female Human Resource Officers without substantial gender representation bias.

Regarding age, the largest proportion of respondents was aged between 30 and 39 years, comprising 78 respondents (43.3%). This was followed by respondents aged 40–49 years, who accounted for 46 (25.6%), while 36 respondents (20.0%) were aged 20–29 years. Respondents aged above 50 years constituted the smallest age category, with 20 respondents (11.1%). The distribution indicates that a substantial proportion of the respondents were within the established working-age categories, suggesting that many participants had potentially accumulated relevant professional exposure to human resource management and GHRIS-related processes.

In terms of educational attainment, the majority of respondents held a bachelor's degree, representing 78 respondents (46.1%). This was followed by respondents with master's degrees, who accounted for 44 (26.1%), while 37 respondents (22.0%) held diploma qualifications. Only

10 respondents (5.6%) held Doctor of Philosophy (PhD) qualifications. Overall, the distribution indicates that the respondents possessed relatively high levels of formal education, providing an appropriate academic foundation for understanding human resource management processes and the application of digital human resource information systems.

With respect to work experience, the largest proportion of respondents had between 6 and 10 years of experience, accounting for 67 respondents (39.4%). This was followed by respondents with 1–5 years of experience, who constituted 39 (22.8%). Respondents with 11–15 years of experience accounted for 29 (17.2%), while 25 respondents (15.0%) had more than 15 years of experience. Only 9 respondents (5.6%) had less than one year of work experience. The predominance of respondents with six or more years of professional experience suggests that a substantial proportion had considerable exposure to human resource management practices and were therefore likely to possess relevant practical knowledge of GHRIS implementation and utilization in public sector institutions.

Regarding institutional affiliation, respondents were drawn from both county governments and state corporations. County government respondents constituted the majority, with 100 respondents (59.4%), while 69 respondents (40.6%) were from state corporations. The representation of respondents from both institutional categories enabled the study to capture perspectives from different public-sector organizational contexts. Overall, the demographic characteristics indicate that the study included Human Resource Officers with varied gender, age, educational, professional experience, and institutional backgrounds. These characteristics provide an important contextual basis for interpreting the subsequent findings concerning the implementation and influence of GHRIS on human resource management practices in Kenya's public sector

Payroll Management through GHRIS

Table 3 presents the descriptive findings on payroll management through the Government Human Resource Information System (GHRIS). Overall, the results indicate that respondents generally agreed that GHRIS had contributed positively to payroll management. The highest mean score was recorded for the statement that employees were able to access their pay slips without considerable delay through GHRIS ($M = 3.8167$, $SD = 1.23032$). This finding suggests that respondents generally perceived GHRIS as improving employees' access to payroll information. However, the relatively large standard deviation indicates some variation in respondents' perceptions.

The second-highest mean was recorded for the statement that GHRIS facilitates accurate salary computation ($M = 3.7278$, $SD = 1.20442$). This result indicates general agreement that the system supports the accuracy of salary computation. Similarly, respondents agreed that payroll processing time had improved following the implementation of GHRIS ($M = 3.7111$, $SD = 1.20283$), suggesting that the system may have contributed to greater efficiency in payroll administration. The statement that GHRIS reduced errors in payroll processing recorded a mean of 3.6722 ($SD = 1.29817$), indicating general agreement, although the comparatively higher standard deviation suggests greater variation in respondents' views regarding the extent to which the system reduces payroll errors.

The statement that GHRIS supports timely payroll reporting for management decision-making recorded a mean of 3.6667 (SD = 1.19590). This finding indicates that respondents generally perceived the system as supporting the availability of payroll information for management reporting and decision-making. The lowest mean score was recorded for the statement that payroll data in GHRIS are secure and reliable (M = 3.6611, SD = 1.33355). Although the mean remains above the neutral midpoint, the relatively high standard deviation indicates greater dispersion in respondents' perceptions of payroll data security and reliability. This finding may suggest that, while GHRIS is generally perceived to improve payroll administration, concerns regarding the security and reliability of payroll information remain relevant.

Overall, the descriptive findings suggest that GHRIS is perceived to support key dimensions of payroll management, particularly timely access to pay slips, salary computation, payroll processing efficiency, error reduction, and management reporting. However, the comparatively lower rating and higher variability associated with data security and reliability indicate an area requiring further attention. These findings provide descriptive evidence of respondents' perceptions and should be considered alongside the inferential results when determining the statistical relationship between GHRIS functionality and HRM practices.

Table 3: Respondents' Perceptions of Payroll Management Efficiency through GHRIS

Payroll Management Indicator	Mean	Std deviation
GHRIS enables accurate salary calculations	3.73	1.2
GHRIS enables employees to access pays lips promptly	3.82	1.23
GHRIS reduces errors in payroll processing	3.67	1.3
GHRIS improves the speed of payroll processing	3.71	1.2
GHRIS enhances the security and reliability of payroll data	3.66	1.33
GHRIS supports timely payroll reporting for management decision-making	3.67	1.2
Overall Mean	3.71	-

Overall, the findings show that GHRIS has improved payroll management in several important ways, including easier access to payroll information, greater salary accuracy, faster processing, fewer errors, improved data reliability, and more timely payroll information. However, the relatively high standard deviations reported across some of the indicators, particularly payroll data security and reliability (SD = 1.33355), suggest that respondents did not have the same experiences with the system. This indicates that the benefits of GHRIS may vary from one public institution to another, depending on factors such as the quality of implementation, users' digital skills, the extent to which the system is used, availability of technical support, institutional infrastructure, and compliance with established payroll procedures.

These findings are consistent with evidence from HRIS implementation studies, which generally show that digital human resource systems can improve payroll efficiency, reduce processing time, enhance data accuracy, and minimize errors (Ministry of Public Service, 2024; Ahmed et al., 2023; Mollel & Rutenge, 2024). Consecutively, GHRIS may face challenges related to usability, insufficient user training, difficulties in system integration, and resistance to organizational change

(Ahmed et al., 2023; Mollel & Rutenge, 2024). The findings therefore suggest that introducing GHRIS alone is not sufficient to guarantee consistent improvements in payroll management. Public institutions need to invest continuously in user training, strengthen technical support, improve data-security measures, and regularly monitor system performance (Ministry of Public Service, 2024; Ahmed et al., 2023). These measures can help ensure that the gains associated with GHRIS are sustained and experienced more consistently across public institutions (Mollel & Rutenge, 2024).

Performance Appraisal Management through GHRIS

The results in table 4 illustrates that respondents generally perceived GHRIS positively in relation to performance management. The highest mean score was recorded for the statement that feedback and reporting are timely and effective through GHRIS ($M=3.9278$, $SD=1.17245$), suggesting that the system improves the speed and effectiveness of performance-related communication. This was followed by the view that performance appraisals are more accurate with GHRIS ($M=3.8778$, $SD=1.20824$), indicating that the system contributes to more accurate performance assessment.

Descriptive Statistics

Table 4: Influence of GHRIS on Employee Performance Management

Performance management statement	Mean	Std deviation
Feedback and reporting are timely and effective through GHRIS.	3.9278	1.17245
Performance appraisals are more accurate with GHRIS.	3.8778	1.20824
GHRIS facilitates clear target setting for employees.	3.7944	1.20380
GHRIS allows managers to track performance progress efficiently.	3.7444	1.26457
Employees are satisfied with performance evaluation using GHRIS.	3.7056	1.24487
Overall Mean	3.71	-

The statement that GHRIS facilitates clear target setting for employees recorded a mean of 3.7944 and a standard deviation of 1.20380. This finding suggests that GHRIS supports the communication and documentation of employee performance expectations. Similarly, respondents agreed that GHRIS enables managers to track performance progress efficiently, as reflected by a mean of 3.7444 and a standard deviation of 1.26457. However, the relatively higher standard deviation indicates greater variation in respondents' experiences with the progress-tracking function.

The lowest mean score was reported for employee satisfaction with performance evaluation using GHRIS ($M=3.7056$, $SD=1.24487$). Although this was the lowest-rated item, the mean still indicates a generally positive perception of the system's contribution to performance evaluation.

The findings of the study suggest that GHRIS enhanced performance management by improving the timeliness of feedback and reporting, increased the accuracy of performance appraisals, supporting effective target setting, and enabling continuous monitoring of employee progress.

According to Raja et al. (2024), Ndegerege and Wanyoike (2024), Silidion and Rutenge (2024), and Ong'injo and Komen (2024), digital HR systems can strengthen performance management by making appraisal information more accessible, timely, and useful for managerial decision-making. However, the availability of digital appraisal information does not automatically lead to better decisions. Its effectiveness depends on how managers appropriately use the information and whether employees recognize the appraisal process has been transparent, fair, relevant and confidential, and relevant (Ndegerege & Wanyoike, 2024; Ong'injo & Komen, 2024). Therefore, the findings imply that the effectiveness of GHRIS in performance management depends not only on technological functionality but also on managerial practices, employee trust, and the perceived fairness and transparency of the performance appraisal process.

Leave Management through GHRIS

The findings in Table 5 revealed that GHRIS has generally improved leave management within the institution, as reflected by the relatively high mean scores across all the indicators. The highest mean score was recorded for the view that GHRIS makes leave approvals faster and reduces absenteeism through improved leave management, both with a mean of 3.82. This suggests that respondents perceived the system as effective in reducing delays in the approval process. and improving the management of employee absence. Equally, respondents rated the accuracy of leave balances highly ($M = 3.81$), indicating that GHRIS provides managers and employees with a reliable information record for monitoring leave prerogative and utilization. The system also received positive ratings for maintaining leave records efficiently ($M = 3.78$), and supporting human resource planning ($M = 3.79$), suggesting that digitized leave records provide managers with timely information that can support workforce scheduling and other critical staffing decisions. Although employees were generally positive about applying for leave through GHRIS, this indicator recorded the lowest mean score ($M = 3.63$), implying that ease of application may still present some challenges compared with other aspects of leave management. The standard deviations, which range from 1.19 to 1.32, also show a noticeable degree of variation in respondents' experiences. The relatively high variation for the reduction of absenteeism indicator ($SD = 1.32$) suggests that the effectiveness of GHRIS in managing employee absence may differ across users or departments.

The findings, reflected a positive mean scores, suggesting that GHRIS contributed to transparent and efficient leave administration. The system fast tracked leave services, made it more accessible, and easier to monitor by reducing reliance on manual procedures and providing both human resource managers and employees with up to date information on leave requests, approvals, and balances. Mungania et al. (2025) reported that digital HR systems can improve the accessibility and efficiency of employee services, similarly Mollel and Rutenge (2024) reported that the effectiveness of electronic HR processes depends on factors such as accurate records, clear administrative procedures, timely approvals, reliable system connectivity, and employees' ICT competencies. These findings suggest that the benefits of GHRIS are not determined by the technology alone but also by how effectively it is implemented and used within the institution. Therefore, continued user training, technical support, reliable connectivity, and regular monitoring of leave records are necessary to ensure that the benefits of electronic leave management are experienced consistently by all employees.

Table 5: GHRIS and Leave Management

Leave Management Statement	Mean	Std. Deviation
Ease of e- Leave application	3.6333	1.29847
Leave processing and approvals are faster with GHRIS.	3.8167	1.22120
Provision accurate leave balances records	3.8056	1.24217
GHRIS enables efficient tracking and maintenance of leave records	3.7833	1.19250
Employees absenteeism tracking .	3.8167	1.32224
Leave management effect on HR planning.	3.7889	1.20051
Overall Mean	3.77	

Accessibility of HR Services through GHRIS

The findings in Table 6 showed that respondents viewed GHRIS as having improved access to human resource services. The overall mean of 3.78 indicates a positive perception of the system, particularly in making HR services more accessible and responsive. The highest-rated aspect was the adequacy of user support for navigating GHRIS ($M = 3.88$, $SD = 1.24$), suggesting that most users felt they receive sufficient assistance when using the system. This was followed by the timeliness of HR services ($M = 3.84$, $SD = 1.20$), indicating that GHRIS had helped employees obtain HR services when they need them compared manual procedures perceived to be laborious and time consuming. In addition, respondents also felt that GHRIS had improved workers' satisfaction with HR services ($M = 3.75$, $SD = 1.29$), simplified HR processes ($M = 3.74$, $SD = 1.21$), and strengthened communication between employees and HR ($M = 3.72$, $SD = 1.21$). These results suggest that the value of GHRIS extends beyond simply digitizing HR processes; but it also influences how employees interact with and experience HR services. However, the statement on employees' ability to easily access HR information through GHRIS recorded the lowest mean ($M = 3.72$, $SD = 1.31$). Although this still reflects a generally positive response, the relatively high standard deviation suggests that not all employees experience the same level of accessibility. Differences could be attributed to variances in levels of digital skills, reliability of internet connectivity, familiarity with the system, and availability of technical information technology (ICT) support may partly explain these variations.

Table 6: GHRIS and Accessibility of Human Resource Services

Accessibility of HR Services through GHRIS	Mean	Std. Deviation
Employees can easily access HR information through GHRIS.	3.7167	1.30865
GHRIS provides timely HR services when needed.	3.8444	1.19973
User support is adequate for navigating GHRIS	3.8778	1.24018
GHRIS enhances communication between employees and HR	3.7222	1.20689
HR processes are simplified due to easy access via GHRIS	3.7389	1.20689
GHRIS accessibility improves employee satisfaction with HR services	3.7500	1.28973
Overall Mean	3.78	

The study found that GHRIS improved employees' access to, timeliness of, and convenience in receiving HR services. However, accessibility depended on more than system availability: ease of

use, user permissions, remote-access options, digital skills, and technical support also shaped outcomes. This finding aligns with Abane et al. (2023) and Amoako et al. (2023), who reported that digital HR systems are most effective when employees can navigate and complete HR tasks independently, and it matches the positive perceptions documented here. Likewise, Hussein and Jaaffar (2024) emphasized that usability, digital literacy, system security, and organizational support strongly influence HRIS performance, helping to explain variations in user experience.

A key strength of GHRIS is its self-service functionality: employees can access personal records, pay slips, leave services, and performance appraisal tools without relying solely on HR officers. This supports earlier findings that self-service systems reduce delays and increase employee self-sufficiency (Abane et al., 2023; Amoako et al., 2023).

Human Resource Management Practices

The results presented in Table 7 revealed that respondents generally perceived GHRIS as having a positive effect on human resource management practices, as reflected by the overall mean of 3.83. Among the indicators assessed, performance management recorded the highest mean score ($M = 3.91$, $SD = 1.19$). This suggests that respondents particularly recognized the contribution of GHRIS to the way employee performance is managed, monitored, and evaluated. Employee satisfaction also received a relatively high rating ($M = 3.86$, $SD = 1.25$), while cost savings in HR operations recorded a mean of 3.85 ($SD = 1.22$). These findings indicate that the value of GHRIS extends beyond the automation of routine HR activities to improvements in employee experience and the more efficient use of organizational resources.

Table 7: Effect of GHRIS on Human Resource Management Practices

Human Resource Management Practice	Mean	Std. Deviation
GHRIS contributes to cost savings in HR operations.	3.8500	1.21662
GHRIS contributes to time savings in HR processes.	3.8000	1.25248
Employee satisfaction has improved due to GHRIS.	3.8611	1.24964
GHRIS enhances the effectiveness of performance management	3.9111	1.19257
HR service delivery is more reliable with GHRIS.	3.7667	1.26888
Overall HRM practices have improved due to GHRIS adoption.	3.8056	1.26003
Overall Mean	3.83	

The findings further revealed that GHRIS contributes to time savings in HR processes ($M = 3.80$, $SD = 1.25$) and had improved overall HRM practices ($M = 3.81$, $SD = 1.26$). Although HR service reliability recorded the lowest mean ($M = 3.77$, $SD = 1.27$), the result still reflects a generally positive perception. The standard deviations, which range from 1.19 to 1.27, indicate some differences in respondents' experiences. This variation may reflect differences in system utilization, users' digital literacy, technical support, infrastructure, and probably the extent to which GHRIS has been incorporated into day-to-day HR activities within respective institutions.

Additionally, the results suggested that GHRIS had stimulated HR management beyond a predominantly manual and administrative function toward a more efficient, information-driven approach. The relatively strong rating for performance management is particularly important since timely and reliable HR data can support managers in monitoring employee performance and

making informed decisions. At the same time, the variation in responses indicates that technology alone does not guarantee uniform improvements. The effectiveness of GHRIS depends on how well employees and managers use the system, the reliability of the supporting infrastructure, and the availability of continuous technical assistance. Therefore, sustaining the gains reported in this study requires not only continued investment in the GHRIS platform but also user training, system support, and regular monitoring of implementation across institutions.

Overall, the study showed that GHRIS has strengthened HRM practices by improving performance management, reduced operational costs and processing time, enhanced employee satisfaction, and supported more reliable HR service delivery. These improvements emanate from GHRIS's ability to generate accurate, timely data that supports workforce planning, monitoring and reporting, staffing decisions, and evidence-based public-service management. Consequently, when such information is integrated into planning, decision-making, and performance management, HR shifts from being a primarily administrative role to a strategic organizational pillar, creating strategic valuable tool for public-sector service delivery (Ferlie & Ongaro, 2022; Lubis, 2022). The findings of this study are consistent with Hassanal (2026) and earlier work showing that HRIS transformed HR practices when data quality and integration were strong.

Correlation Analysis: GHRIS Modules and HR Management Practices

Pearson correlation analysis was conducted to determine the relationships between the human resource modules of the Government Human Resource Information System (GHRIS) payroll management, performance management (appraisal), leave management, and accessibility of services and human resource management practices.

Table 8: Pearson Correlation Matrix for HR Functions and HRM Practices (N = 169)

Variable	1	2	3	4	5
1. Payroll management	1.00	.654**	.626**	.679**	.752**
2. Performance management	.654**	1.00	.627**	.664**	.727**
3. Leave management	.626**	.627**	1.00	.632**	.737**
4. Accessibility of services	.679**	.664**	.632**	1.00	.744**
5. Human resource management practices	.752**	.727**	.737**	.744**	1.00

Note. N = 169. ** $p < .01$ (two-tailed). Variables coded as: 1 = Payroll management, 2 = Performance management, 3 = Leave management, 4 = Accessibility of services, 5 = Human resource management practices.

The results in table 8 revealed a clear and consistent positive relationship between all functions and human resource management practices. Payroll management recorded the strongest association with overall HRM practices ($r = .752$, $p < .001$), followed by accessibility of HR services ($r = .744$, $p < .001$), leave management ($r = .737$, $p < .001$), and performance management ($r = .727$, $p < .001$). This suggests that organizations that effectively use GHRIS in managing payroll, leave, performance, and service access tend to experience stronger overall HRM performance.

In practical terms, the strong link between payroll management and HRM practices highlights the importance of accurate and timely salary processing in strengthening HR efficiency. When payroll is well managed through GHRIS, HR staff are relieved from routine administrative burdens and can focus more on strategic HR activities. Similarly, easier access to HR services is closely linked to better HRM outcomes, showing that employees benefit when HR information is readily available. The positive relationships observed for leave and performance management further indicate that efficient digital handling of these functions contributes to improved overall HR practices.

The findings also revealed that GHRIS functions are interconnected. Payroll management is positively related to accessibility of services ($r = .679$) and performance management ($r = .654$), while performance management is also linked to accessibility of services ($r = .664$) and leave management ($r = .627$). This suggests that the system works as an integrated whole, where improvement in one area supports better performance in others.

Generally, the results confirm a strong and statistically significant relationship between GHRIS and HRM practices at the 1% level ($p < .01$). However, these findings should be interpreted as relationships rather than direct causation. They show that stronger GHRIS implementation is associated with better HRM practices, while further analysis such as regression is needed to determine the extent of its predictive influence.

Regression Model Summary

The model summary results show that the R value is .864 which is a good indication that the regression model is strong. This implies that payroll management, performance management, leave management, and service accessibility exhibited a strong positive relationship with HRM practices. The R Square value was .746 which indicates that four independent variables accounted for 74.6% of the variance in the human resource management practices. The result indicates that the significance of GHRIS factors in predicting human resource management practices is high. The Adjusted R Square was .740, indicating that, after accounting for the number of independent variables in the model, the model accounted for 74.0% of the variance in human resource management practices. Therefore, the model was a good fit for explaining the effect of GHRIS on human resource management practices.

Table 9: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.864	.746	.740	.53965

Note. Predictors: Payroll management, Performance management, Leave management, and Accessibility of services.

Analysis of Variance

The ANOVA results show that the regression model was statistically significant in explaining human resource management practices. The F-statistic was 128.252 with a significance value of $p < .001$. Since the p-value was less than 0.05, the model was statistically significant. This implies that payroll management, performance management, leave management, and accessibility of

services jointly had a significant effect on human resource management practices. Hence, the ANOVA output shows that the regression model proved to be adequate for the prediction of HRM practices with the GHRIS variables identified.

Inferential results show that GHRIS had a significant and positive impact on HRM practices. The correlation results revealed that payroll management, performance management, leave management, and accessibility of services all had positive and significant correlations with human resource management practices. Also, the results indicated that the variation in human resource management practices was accounted for by the four GHRIS-related variables, 74.6% when added together in the model summary. The results of the ANOVA table also suggested that overall, the developed regression model is statistically significant. The findings in this study suggest that the adoption and effective utilization of GHRIS benefits HR operations by promoting accurate payroll management, performance tracking, leave management, accessibility of HR services, employee satisfaction, and HR service delivery.

Table 10: ANOVA Table for the Regression Model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	149.398	4	37.349	128.252	.000 ^b
	Residual	50.963	175	.291		
	Total	200.361	179			
a. Dependent Variable: human resource management practices						
b. Predictors: (Constant), Accessibility of services, Leave management, Performance management, Payroll Management						

Regression Coefficient

The estimated regression equation was:

$$Y = 0.016 + 0.278X_1 + 0.217X_2 + 0.280X_3 + 0.239X_4$$

Where Y represents human resource management practices; X_1 represents payroll management; X_2 represents performance management; X_3 represents leave management; and X_4 represents accessibility of services.

The coefficient results indicate that all four GHRIS modules were positively and significantly associated with human resource management practices. Payroll management recorded a positive coefficient ($B = 0.278$, $\beta = 0.275$, $t = 4.770$, $p < .001$), indicating that improvements in payroll management were associated with higher levels of HRM practices, after controlling for the other predictors. This suggests that reliable salary processing, timely access to pay slips, accurate payroll records, reduced payroll errors, and efficient payroll reporting may strengthen HRM processes.

Performance management also showed a positive and statistically significant relationship with HRM practices ($B = 0.217$, $\beta = 0.213$, $t = 3.736$, $p < .001$). The finding indicates that effective use of GHRIS for performance target setting, appraisal, monitoring, feedback, and reporting is associated with improved HRM practices. Although its standardized coefficient was the lowest among the four predictors, performance management remained a statistically significant contributor to the model.

Leave management recorded the largest standardized coefficient ($B = 0.280$, $\beta = 0.280$, $t = 5.144$, $p < .001$), indicating that it was the strongest predictor among the four GHRIS components based on the magnitude of β . Efficient leave application, approval, record keeping, leave-balance management, and tracking are therefore strongly associated with effective HRM practices. However, the difference between leave management ($\beta = 0.280$) and payroll management ($\beta = 0.275$) is very small and should not be interpreted as a substantial difference in predictive strength without a formal test of the difference between coefficients. Accessibility of services was similarly positive and statistically significant ($B = 0.239$, $\beta = 0.240$, $t = 4.103$, $p < .001$). This indicates that easier access to HR information and services, timely support, effective communication, and streamlined GHRIS processes are associated with better HRM practices.

Overall, the coefficient results demonstrate that payroll management, performance management, leave management, and accessibility of services each make a positive and statistically significant contribution to the prediction of human resource management practices. Based on the standardized coefficients, leave management had the largest coefficient ($\beta = 0.280$), followed by payroll management ($\beta = 0.275$), accessibility of services ($\beta = 0.240$), and performance management ($\beta = 0.213$). The results therefore provide evidence that effective utilization of the major GHRIS functions is significantly associated with stronger HRM practices. Because the analysis is based on regression relationships, the findings should be interpreted as evidence of statistical association and predictive contribution rather than definitive causal effects.

Table 11: Regression Coefficients for GHRIS Components and Human Resource Management Practices

Predictor	B	SE	β	t	p
Constant	0.016	0.174	—	0.090	0.928
Payroll management	0.278	0.058	0.275	4.770	< .001
Performance management	0.217	0.058	0.213	3.736	< .001
Leave management	0.280	0.054	0.280	5.144	< .001
Accessibility of services	0.239	0.058	0.240	4.103	< .001

Note. Dependent variable: Human resource management practices. B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The Study concluded that Government Human Resource Information System (GHRIS) was positively and significantly associated with human resource management (HRM) practices in Kenyan public service institutions across all key functional areas. Payroll management showed the strongest relationship with HRM practices ($r = .752$, $p < .001$), indicating that GHRIS enhanced salary accuracy, reduced payroll errors, hastened processing, and improved employee access to pay information, thereby strengthening the efficiency and reliability of payroll services. Regarding the performance management (appraisal) study also showed significant association with HRM practices ($r = .727$, $p < .001$), this suggested that GHRIS supported clear target setting, consistent performance appraisal, timely feedback, and improved tracking of employee performance.

However, its effectiveness depended on level of training and institutional support. Similarly, leave management was positively related to HRM practices ($r = .737$, $p < .001$), suggesting GHRIS improved leave application processes, accuracy of leave records, approvals, and workforce planning, leading to more transparent and organized leave administration. Accessibility of HR services also demonstrated a strong positive association with HRM practices ($r = .744$, $p < .001$), this indicated that GHRIS enhanced access to HR information, improved communication between employees and HR units, and streamlined service delivery, however, sustained benefits required reliable ICT infrastructure, user support, and continuous training. Overall, the findings suggested that effective utilization of GHRIS could strengthen transparency, efficiency and responsiveness of HRM practices in the public service.

Recommendations

Based on the study findings, the following recommendation are made, the government should;

1. Fully integrate and adopt GHRIS in all public institutions. This will ensure that core HR functions such as payroll, leave management, performance management, and employee service access are fully digitized, for improved efficiency, transparency, and overall human resource management practices in the public service
2. Invest in ICT infrastructure and system security, reliable internet connectivity, modern software and hardware, technical support, data backup and cyber security measures and access control for seamless interface, secure and ease of use of GHRIS.
3. Develop a continuous capacity building and a system that prioritize training for employees and HR staff to enhance digital skills, user experience and accessibility of the system, strengthening performance management function, and continuously monitoring and evaluating GHRIS to enable improve service delivery.

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