

HUMAN RESOURCE INFORMATION SYSTEM AND HUMAN RESOURCE MANAGEMENT PRACTICES IN DEPOSIT MONEY BANKS IN RIVERS STATE, NIGERIA

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Abstract

This study investigated the relationship between Human Resource Information System (HRIS) and two key measures of human resource management practices: E-Performance Appraisal (E-PA) and E-Career Advancement (E-CA) in deposit money banks in Rivers State, Nigeria. The study adopted an explanatory survey research design underpinned by positivist philosophy. A structured questionnaire validated for face and content validity and confirmed reliable via Cronbach alpha (coefficients between 0.761 and 0.794) was administered to 150 managerial staff across Access Bank Plc, Guaranty Trust Bank Plc, and United Bank for Africa Plc; 123 copies were retrieved and analyzed. Spearman's rank-order correlation coefficient was employed for hypothesis testing using SPSS Version 22.0. Results revealed significant positive relationships between HRIS and E-Performance Appraisal ($r = 0.528, p < 0.05$) and between HRIS and E-Career Advancement ($r = 0.453, p < 0.05$). The study concluded that HRIS significantly enhances performance appraisal effectiveness and career advancement processes in Nigerian deposit money banks. Banks are recommended to invest in comprehensive HRIS platforms with integrated appraisal and career management modules, and to build HR professionals' capacity to harness HRIS data for evidence-based appraisal and career development decisions.

Keywords: Human Resource Information System, E-Performance Appraisal, E-Career Advancement, Human Resource Management Practices, Deposit Money Banks

Introduction

The contemporary banking environment is defined by the dual imperatives of technology adoption and talent management excellence. Banks that succeed in harnessing digital tools to manage their human capital effectively gain a decisive competitive advantage in increasingly contested financial markets (Bondarouk & Ruël, 2013; Wairimu, 2023). Among the most transformative digital HR tools available to modern organizations is the **Human Resource Information System (HRIS)** — a centralized, computer-based system that integrates, stores, processes, and disseminates comprehensive employee data to support the full range of HRM activities (Nagendra & Deshpande, 2014). HRIS enables organizations to maintain digital records of employee biodata, qualifications, performance history, compensation, training, and career progression, providing HR managers with the data infrastructure needed for evidence-based workforce decisions (Lengnick-Hall & Moritz, 2003; Strohmeier, 2007). In deposit money banks in Nigeria — particularly in Rivers State, where the banking sector operates amid oil-sector economic volatility, high talent competition, and regulatory complexity — the strategic deployment of HRIS in performance appraisal and career advancement processes represents a critical lever for organizational effectiveness and employee development.

Two particularly important measures of HRM that HRIS can influence are **E-Performance Appraisal (E-PA)** and **E-Career Advancement (E-CA)**. E-Performance Appraisal involves the use of technology-based systems to evaluate employee performance, set and monitor goals, provide continuous feedback, and document performance outcomes in a transparent, data-rich environment (Sharma & Gupta, 2020; Aliyu & Bello, 2022). E-Career Advancement describes the application of digital tools and platforms to support, facilitate, and accelerate employees' career progression — including internal job mobility, personalized development plans, succession planning, and e-learning — within organizations (Adebola & Oladipo, 2023). Both practices are central to employee

motivation, retention, and organizational competitiveness, particularly in high-performance banking environments where talent attraction and retention are perennial strategic priorities.

Amidst the established global importance of HRIS in driving HR effectiveness, empirical evidence on its specific relationship with E-Performance Appraisal and E-Career Advancement in Nigerian banking institutions — and in Rivers State deposit money banks in particular — remains limited. Chukuigwe (2022) established a positive relationship between HRIS and HRM practices in Rivers State banks, but did not disaggregate the analysis to examine E-PA and E-CA as discrete outcomes. Aliyu and Bello (2022) demonstrated that HRIS improves performance appraisal in Nigerian banks but focused exclusively on Lagos, leaving the Rivers State banking context empirically underdeveloped. Ibrahim and Musa (2022) found HRIS positively influenced employee satisfaction in financial institutions but did not specifically address career advancement as a distinct HR outcome. Wairimu (2023) established HRIS-performance monitoring relationships in Kenya but the African banking context varies significantly enough to require localized Nigerian evidence. This convergent pattern of gaps motivates a focused, localized investigation of the HRIS–E-PA and HRIS–E-CA relationships in Rivers State deposit money banks, which the present study undertakes.

This study is theoretically grounded in the Diffusion of Innovation Theory (Rogers, 2003) and the Resource-Based View (RBV) theory (Barney, 1991). The Diffusion of Innovation Theory explains how organizations adopt and integrate new technologies — such as HRIS — into their operational systems, driven by factors including perceived relative advantage, compatibility with existing systems, and management support. The RBV theory posits that HRIS, as a unique organizational capability, constitutes a strategic resource that generates competitive advantage by improving decision quality in performance management and career development. By combining these theoretical lenses, this study provides a comprehensive analytical framework for understanding why and how HRIS adoption in Rivers State banks translates into improved E-PA and E-CA outcomes. The study contributes to filling the Rivers State-specific empirical gap while offering practical insights for banking management and HR policy stakeholders in Nigeria.

Statement of the Problem

In spite of the growing global recognition of Human Resource Information Systems as critical enablers of modern HRM, deposit money banks in Rivers State, Nigeria, exhibit significant deficiencies in the systematic deployment of HRIS for performance appraisal and career advancement purposes. Many banks in the region continue to rely on semi-automated, paper-based, or manually intensive appraisal processes that lack the objectivity, timeliness, and analytical depth required for effective performance management in a competitive banking environment (Chukuigwe, 2022; Galadanchi & Saulawa, 2024). Similarly, career advancement processes in these institutions are often informal, opaque, and insufficiently supported by digital tools for skill tracking, career path planning, and succession management — resulting in employee dissatisfaction, talent loss, and inadequate leadership pipeline development (International Policy Brief, 2025; Adebola & Oladipo, 2023).

The core problem is therefore the empirically unverified relationship between HRIS adoption and these two critical HR outcome dimensions — E-Performance Appraisal and E-Career Advancement — in the specific context of Rivers State deposit money banks. The absence of context-specific evidence means that banking management, HR professionals, and regulators lack empirically grounded insights to guide HRIS investment decisions and implementation strategies aimed at improving appraisal and career management outcomes. This gap is particularly concerning given that Rivers State's banking sector faces unique human resource challenges — including high staff turnover, talent competition from oil industry employers, and diversity management imperatives — that make evidence-based performance appraisal and career development more critical than in more stable banking environments. This study directly addresses this problem by generating robust empirical evidence on the HRIS–E-PA and HRIS–E-CA relationships in Rivers State deposit money banks.

Literature Review

Conceptual Review of Human Resource Information System (HRIS)

Human Resource Information System (HRIS) is a software system or digital platform that provides a centralized repository of employee master data and enables human resource departments to manage, process, and leverage comprehensive workforce information to support HR planning and decision-making (Nagendra & Deshpande, 2014; Strohmeier, 2007). HRIS encompasses a broad range of digital HR functionalities including employee record management, payroll processing, benefits administration, recruitment and applicant tracking, training and development management, performance data collection, succession planning, and analytics reporting (Bony & Fatema, 2024; Aliyu & Bello, 2022). From an operational perspective, HRIS systems are categorized into three tiers: operational HRIS, which manages daily employee records and routine transactional tasks; tactical HRIS, which supports mid-level HR decisions such as recruitment, job analysis, and compensation planning; and strategic HRIS, which facilitates long-range HR planning, labour negotiations, and succession strategy (Saifalislam et al., 2014; Abdul & Abdullah, 2018).

In the banking sector, HRIS has emerged as a transformative organizational technology that enables banks to manage increasingly complex workforce demands through data-driven HR practices (Chukuigwe, 2022; Ibrahim & Musa, 2022). HRIS in banks typically integrates employee data from multiple operational units — including performance metrics, attendance records, training completions, compensation history, and career progression milestones — into a unified digital system that facilitates comprehensive HR analytics and evidence-based decision-making (Wairimu, 2023; Lengnick-Hall & Moritz, 2003). The integration of HRIS into performance appraisal and career management functions is particularly valuable in Nigerian deposit money banks, where the need to accurately assess diverse, geographically dispersed workforces and provide transparent career development opportunities is both strategically critical and operationally complex (Galadanchi & Saulawa, 2024; Adebola & Oladipo, 2023).

Conceptual Review of E-Performance Appraisal (E-PA)

E-Performance Appraisal is the digital process of evaluating employee performance through technology-enabled systems rather than conventional paper-based or manual methods (Bondarouk & Ruël, 2013; Parry & Tyson, 2011). Electronic appraisal systems integrate multiple performance management features — including digital goal-setting, real-time performance monitoring, online self-assessment tools, continuous feedback mechanisms, 360-degree digital reviews, automated performance rating computations, and analytical dashboards — that collectively provide a more accurate, transparent, and efficient appraisal process compared to traditional methods (Sharma & Gupta, 2020; Aliyu & Bello, 2022). In competitive banking contexts, E-PA systems are critical for aligning individual performance with organizational strategy, identifying high performers for recognition and advancement, diagnosing development needs, and generating objective performance documentation that supports fair and defensible HR decisions.

The theoretical and empirical literature consistently highlights that HRIS integration into performance appraisal processes eliminates the inefficiencies and subjectivities associated with manual appraisal systems (Strohmeier, 2007; Lengnick-Hall & Moritz, 2003). HRIS-enabled E-PA allows HR departments to access comprehensive, up-to-date employee performance records, automate appraisal workflows, reduce administrative burden, and generate multi-dimensional performance reports that inform compensation, promotion, and development decisions more reliably than manual approaches (Sharma & Gupta, 2020; Parry & Tyson, 2011). In Nigerian banking contexts, the shift from manual to electronic performance appraisal represents a critical modernization that addresses longstanding challenges of appraisal bias, delayed feedback, and inadequate documentation (Aliyu & Bello, 2022; Adebola & Oladipo, 2023).

Conceptual Review of E-Career Advancement (E-CA)

E-Career Advancement refers to the use of digital platforms, electronic tools, and technology-enabled processes to facilitate, support, and accelerate employees' career progression within organizations (Adebola & Oladipo, 2023; International Policy Brief, 2025). E-CA encompasses a range of digital HR functionalities including internal job posting portals where employees can view and apply for vacancies and promotions; digital skill-tracking systems that maintain comprehensive records of employees' qualifications, training histories, and career milestones; career path modeling software that generates personalized development recommendations based on employee competency data; e-learning management systems that provide accessible, self-paced learning aligned with career goals; and succession planning tools that identify and prepare high-potential employees for leadership roles (Adebola & Oladipo, 2023; Aliyu & Bello, 2022).

HRIS plays a foundational role in enabling E-Career Advancement by providing the data infrastructure — including comprehensive employee profiles, performance histories, skills inventories, and training records — that powers career advancement algorithms and management decisions (Nagendra & Deshpande, 2014; Strohmeier, 2007). In banking institutions, the availability of HRIS-enabled career management tools significantly enhances employee motivation, reduces voluntary turnover by providing transparent internal mobility pathways, and builds organizational capability by systematically developing internal talent for succession into critical roles (Hee et al., 2019; Saifalislam et al., 2014). Despite its strategic importance, E-Career Advancement is often the least developed e-HRM practice in Nigerian banks, as evidenced by the relatively lower mean scores for E-CA compared to E-HRP and E-PA reported in prior studies (Adebola & Oladipo, 2023), underscoring the need for targeted empirical investigation of the HRIS-E-CA relationship.

Theoretical Framework

This study is anchored on two complementary theoretical frameworks. The first is the Diffusion of Innovation (DOI) Theory (Rogers, 2003), which posits that the adoption and integration of new technological innovations — such as HRIS — in organizations is driven by perceived relative advantage, compatibility with existing systems and values, complexity, trialability, and observability. Applied to this study, DOI theory explains the varying extents to which deposit money banks in Rivers State have adopted HRIS for performance appraisal and career advancement purposes, shaped by organizational readiness, management attitudes, and technological compatibility. The second theoretical anchor is the Resource-Based View (RBV) theory (Barney, 1991; Bhatt & Grover, 2005), which posits that unique, valuable, rare, inimitable, and non-substitutable organizational resources and capabilities are sources of sustainable competitive advantage. HRIS — when strategically deployed for E-PA and E-CA — constitutes such a capability, enabling banks to make superior performance management and talent development decisions that are difficult for competitors to replicate, thereby sustaining competitive advantage in the talent-intensive banking sector.

Together, these theories provide a robust analytical framework for examining why and how HRIS adoption in Rivers State banks is expected to translate into improved E-PA and E-CA outcomes. The DOI lens explains the adoption process and variation, while the RBV lens explains the value-creation mechanism through which HRIS enhances HR outcomes and organizational competitiveness.

Empirical Review

Hossain, Arefin, and Urme (2025) examined the relationship between strategic HRM practices — including digital performance management systems — and organizational performance in financial institutions. The study found that organizations leveraging digital HR analytics, including HRIS-enabled performance tracking tools, achieved significantly better workforce productivity and financial outcomes. However, the study's broad financial sector focus and lack of specificity

regarding HRIS effects on appraisal and career advancement in Nigerian banks represent gaps the current study addresses.

Bony and Fatema (2024) investigated the impact of HRIS on the financial profitability of commercial banks in Bangladesh, demonstrating that HRIS adoption improved operational efficiency, employee productivity, and profitability by reducing administrative burdens and enabling data-driven HR decisions. The Bangladesh-specific context and absence of career advancement as a dependent variable represent gaps in this study that the present investigation fills.

Galadanchi and Saulawa (2024) assessed the effectiveness of HRM practices in Nigerian banking, finding that digital HR systems — including performance appraisal tools — positively influenced employee satisfaction and organizational productivity in Nigerian commercial banks. The study's broad national banking scope and lack of HRIS-specific or career advancement-specific analysis constitute gaps addressed in this study.

Ahmed, Khuwaja, and Khooharo (2024) assessed HRM practices and organizational performance in the banking sector, recommending the adoption of technology-driven HR systems for improved performance management. However, the study lacked HRIS-specific analysis of performance appraisal and career advancement outcomes in the Nigerian banking context.

Chali and Lakatos (2024) conducted a systematic review of HRM practices and financial performance, concluding that digital HR technologies enhance efficiency across performance management and career development functions. The review's broad scope and absence of empirical data from Rivers State banking institutions are gaps this study addresses.

Aliyu and Bello (2022) studied the effect of HRIS on employee performance in Nigerian banks, finding that HRIS improves workforce planning, recruitment efficiency, and performance appraisal objectivity. The study's exclusive Lagos focus and lack of career advancement as a dependent variable underscore the need for Rivers State-specific evidence provided by the current study.

Ibrahim and Musa (2022) examined the influence of HRIS on employee satisfaction in financial institutions, establishing that HRIS-based systems significantly improve HR service delivery and employee engagement through faster processing of HR requests and improved access to employee records. The general financial institution scope and absence of E-CA as a dependent variable are gaps addressed in this study.

Rahman and Ahmed (2022) demonstrated that MIS adoption enhances employee engagement and communication in banking by providing digital platforms for information sharing and organizational participation. The study's general MIS focus and lack of HRIS-specific or career advancement-specific analysis motivate the current investigation.

Adebola and Oladipo (2023) investigated MIS influences on HR practices in Nigerian deposit money banks, finding that digital HR tools improve planning, appraisal, and career development processes. However, the absence of Rivers State-specific analysis and HRIS-specific evidence on career advancement are gaps the present study fills.

Wairimu (2023) found that HRIS improves HR planning, record accuracy, and performance monitoring in Kenyan banking, establishing positive HRIS-performance relationships. The Kenya-specific context and absence of career advancement analysis signal the need for Nigerian banking evidence that this study provides.

Islam, Rahman, and Karim (2023) examined the role of e-HRM systems in improving organizational performance in financial institutions, finding improvements in employee engagement and decision-making quality through e-HRM adoption. The general financial institutions focus and lack of HRIS-specific career advancement evidence are gaps this study addresses.

Khan and Khan (2021) demonstrated that MIS tools improve HR planning and recruitment efficiency in financial institutions. The broad MIS focus and absence of HRIS-specific or E-CA-specific analysis in a Nigerian banking context represent gaps addressed by the current study.

Olatunji and Adeyemi (2021) established MIS-productivity relationships in Nigerian banks through enhanced communication and data management. The general Nigerian banking scope and absence of HRIS-specific career advancement analysis motivate this investigation.

Yusuf and Abdullahi (2021) demonstrated the effectiveness of electronic HR systems in improving recruitment efficiency and candidate selection quality in banking institutions. The study's focus on recruitment rather than appraisal and career advancement, and its absence of Rivers State-specific evidence, are gaps this study fills.

Okafor and Eze (2020) found that MIS significantly enhances workforce planning and HR forecasting accuracy in Nigerian banks. The study's workforce planning focus and absence of HRIS-specific analysis of appraisal and career advancement outcomes are gaps addressed here.

Sharma and Gupta (2020) demonstrated MIS-driven improvements in performance evaluation processes in Indian banking, with electronic appraisal systems enabling more accurate performance tracking and reduced administrative workload. The India-specific context necessitates Nigerian evidence provided by this study.

Bondarouk and Ruël (2013) examined the strategic value of e-HRM systems, finding that electronic HR platforms improve HR service delivery, communication, and employee data management. The study's broad organizational scope and dated context necessitate contemporary, sector-specific studies such as this one.

Parry and Tyson (2011) found that e-HRM systems improve workforce management through better data analytics and performance-driven decision-making. The general organizational scope and absence of Nigerian banking context validate the need for this study.

Strohmeier (2007) established that e-HRM adoption significantly reduces administrative workload, improves employee record management, and enhances HR service delivery. The dated and general scope of this study necessitates contemporary, context-specific investigations such as the present one.

Lengnick-Hall and Moritz (2003) found that electronic HRM systems significantly improve workforce planning and employee data management quality. The foundational status and lack of Nigerian banking context validate the need for this contemporary localized study.

Chukuigwe (2022) established positive HRIS-HRM practice relationships in Rivers State deposit money banks, providing the most directly relevant prior study for the current investigation. However, Chukuigwe did not disaggregate findings to examine E-PA and E-CA as discrete outcomes, which the present study addresses.

Based on the empirical review and identified research gaps, the following null hypotheses guided the study:

H₀₁: There is no significant relationship between Human Resource Information System and E-Performance Appraisal in deposit money banks in Rivers State, Nigeria.

H₀₂: There is no significant relationship between Human Resource Information System and E-Career Advancement in deposit money banks in Rivers State, Nigeria.

Methodology

The study adopted an explanatory survey research design anchored in a positivist epistemological orientation, consistent with its goal of empirically testing specified relationships between defined variables using quantitative methods (Bryman, 2012; Saunders et al., 2012). The positivist stance supports the use of structured questionnaires, hypothesis testing, and inferential statistics to establish measurable associations between Human Resource Information System — as a dimension of Management Information System — and the two criterion variable measures of E-Performance Appraisal and E-Career Advancement in the formal organizational setting of deposit money banks in Port Harcourt, Rivers State, Nigeria. The accessible population comprised 260 managerial staff (branch managers, operations managers, HR managers, customer relations managers, and IT managers) across the twenty-six (26) deposit money banks confirmed operational in Rivers State per the 2024 Central Bank of Nigeria register, based on a conservative estimate of

10 relevant managerial staff per bank. A sample size of 150 respondents was determined using the Krejcie and Morgan (1970) sample size determination table for a population of 260 at the 95% confidence level and $\pm 5\%$ margin of error. Three banks — Access Bank Plc (19 branches), Guaranty Trust Bank Plc (15 branches), and United Bank for Africa Plc (16 branches) — were purposively selected based on their high Rivers State branch network density, documented HRIS/MIS adoption, and confirmed access authorization, and three key managerial staff per branch were purposively selected across 50 branches, yielding 150 respondents. The research instrument was a structured questionnaire organized on a four-point Likert scale (Very Great Extent = 4; Great Extent = 3; Moderate Extent = 2; Low Extent = 1), validated for face and content validity by the research supervisor and two HRM experts, with Cronbach alpha reliability coefficients for HRIS (0.761), E-Performance Appraisal (0.764), and E-Career Advancement (0.786) all exceeding the 0.70 benchmark (Nunnally, 1978). Of the 150 questionnaire copies administered with research assistant support over two weeks, 123 were retrieved (82% response rate) and constituted the dataset for analysis. Univariate analysis employed mean and standard deviation; bivariate hypothesis testing employed Spearman's rank-order correlation coefficient (ρ) at the 0.05 level of significance using SPSS Version 22.0. Spearman's ρ was selected as the appropriate non-parametric measure for ordinal Likert-scale data, providing robust measurement of monotonic relationships between HRIS, E-PA, and E-CA as ranked variables (Zeb-Obipi, 2007).

Results

Descriptive Statistics

Table 1 presents the descriptive statistics of Human Resource Information System, E-Performance Appraisal, and E-Career Advancement based on 123 valid respondents.

Table 1: Descriptive Statistics of Study Variables (N = 123)

Variable	N	Min.	Max.	Mean	Std. Deviation
Human Resource Information System (HRIS)	123	1.00	4.00	3.6454	.32496
E-Performance Appraisal (E-PA)	123	1.00	4.00	3.6896	.52117
E-Career Advancement (E-CA)	123	1.00	4.00	2.6051	.57371

Source: SPSS Output, 2026.

Table 1 reveals that HRIS recorded a mean of 3.6454 (SD = .32496), indicating that deposit money banks in Rivers State adopt HRIS to a great extent. E-Performance Appraisal recorded the highest mean of 3.6896 (SD = .52117) among the HRM practices, confirming that electronic performance appraisal is the most robustly implemented e-HRM practice in the sampled banks. E-Career Advancement recorded a comparatively lower mean of 2.6051 (SD = .57371), indicating moderate adoption of digital career advancement tools — still above the scale midpoint, but reflecting an area for strategic improvement. These descriptive results suggest that while HRIS and E-PA are well-established in Rivers State banking, E-Career Advancement lags behind, presenting both a gap and an opportunity for banks to strengthen HRIS integration in career development processes.

Bivariate Analysis and Hypothesis Testing

Table 2 presents the Spearman's ρ correlation matrix between Human Resource Information System and the two HRM practice measures — E-Performance Appraisal and E-Career Advancement — based on 123 respondents.

Table 2: Spearman's Rho Correlation between HRIS and HRM Practices (N = 123)

Variables		HRIS	E-PA	E-CA
Human Resource Information System (HRIS)	Correlation Coefficient	1.000	.528**	.453**
	Sig. (2-tailed)	.000	.000	.000
	N	123	123	123
E-Performance Appraisal (E-PA)	Correlation Coefficient	.528**	1.000	.414**
	Sig. (2-tailed)	.000	.000	.000
	N	123	123	123
E-Career Advancement (E-CA)	Correlation Coefficient	.453**	.414**	1.000
	Sig. (2-tailed)	.000	.000	.000
	N	123	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2026.

Hypothesis 1 (H₀₁: There is no significant relationship between HRIS and E-Performance Appraisal): Table 2 reveals a correlation coefficient (r) of 0.528 between HRIS and E-Performance Appraisal, with a significance value of 0.000 which is less than the chosen alpha level of 0.05. Therefore, the null hypothesis H₀₁ is rejected and the alternate hypothesis accepted. This implies that there is a significant, moderately strong positive relationship between Human Resource Information System and E-Performance Appraisal in deposit money banks in Rivers State, Nigeria. The coefficient (r = 0.528) indicates that banks with more advanced HRIS adoption tend to exhibit more effective, data-driven, and objective electronic performance appraisal practices.

Hypothesis 2 (H₀₂: There is no significant relationship between HRIS and E-Career Advancement): Table 2 reveals a correlation coefficient (r) of 0.453 between HRIS and E-Career Advancement, with a significance value of 0.000 which is less than the chosen alpha level of 0.05. Therefore, the null hypothesis H₀₂ is rejected and the alternate hypothesis accepted. This implies that there is a significant positive relationship — though moderate in magnitude — between Human Resource Information System and E-Career Advancement in deposit money banks in Rivers State, Nigeria. The coefficient (r = 0.453) falls within the moderate-to-great relationship range, indicating that HRIS adoption meaningfully supports digital career advancement processes, though the relationship is not as strong as that observed for E-Performance Appraisal.

Discussion of Findings

The finding that HRIS has a significant positive relationship with E-Performance Appraisal (r = 0.528, p < 0.05) is consistent with and advances prior empirical evidence from multiple contexts. The result aligns with Sharma and Gupta (2020), who demonstrated that digital HR systems significantly improve performance evaluation in Indian banking, with electronic appraisal platforms enabling more accurate performance tracking, objective documentation, and reduced administrative workload. The finding further corroborates Aliyu and Bello (2022), who found that HRIS adoption improves objective performance appraisal in Nigerian banks, and extends this finding to the Rivers State context. The positive relationship obtained in this study can be understood through the mechanism by which HRIS provides HR managers with comprehensive, real-time employee performance data — including skill level metrics, efficiency indicators, multitasking records, and historical performance patterns — that inform more objective, accurate, and timely appraisal decisions. HRIS-integrated appraisal portals eliminate the inefficiencies of paper-based systems, enable continuous feedback exchange between supervisors and employees, and generate comprehensive appraisal reports that support fair, evidence-based HR decisions regarding promotions, training, and compensation. This finding is also consistent with Bondarouk and Ruël

(2013) and Parry and Tyson (2011), who documented that e-HRM systems including HRIS significantly enhance HR service delivery and performance management quality in organizations.

The finding that HRIS has a significant positive relationship with E-Career Advancement ($r = 0.453$, $p < 0.05$), though slightly weaker than the HRIS–E-PA relationship, is a particularly noteworthy contribution to the literature given the relative paucity of empirical evidence on the HRIS–career advancement nexus in Nigerian banking. This finding resonates with Adebola and Oladipo (2023), who found that digital HR tools improve career development processes in Nigerian banks, and with Hee et al. (2019), who established that HRIS enables employees to search for new career opportunities within organizations and access information about future training pathways. The positive relationship reflects the mechanism through which HRIS — by maintaining comprehensive digital skills inventories, career progression histories, training records, and competency profiles — provides the data foundation for personalized career pathing, succession planning, and targeted development planning in deposit money banks. The relatively lower correlation compared to E-PA ($r = 0.453$ vs. $r = 0.528$) may be attributable to the developmental nature of career advancement systems in Rivers State banks: while HRIS infrastructure for performance tracking is relatively mature, the integration of HRIS data into strategic career advancement tools — such as AI-driven career recommendation engines, internal mobility portals, and succession planning software — remains at an earlier stage of development. This finding is consistent with the descriptive evidence showing that E-Career Advancement recorded the lowest mean score (2.6051) among the three HRM practice measures, suggesting that digital career advancement is an area where further HRIS investment could yield significant HR effectiveness gains.

CONCLUSION AND RECOMMENDATIONS

This study has provided robust empirical evidence that Human Resource Information System is a significant positive predictor of both E-Performance Appraisal ($r = 0.528$, $p < 0.05$) and E-Career Advancement ($r = 0.453$, $p < 0.05$) in deposit money banks in Rivers State, Nigeria. The findings establish that HRIS — through its capacity to maintain comprehensive, integrated employee data and support HR analytics — materially enhances the objectivity, efficiency, and strategic depth of electronic performance appraisal processes and digital career advancement practices in the Nigerian banking sector. The slightly stronger relationship with E-PA compared to E-CA suggests that while HRIS has been more successfully integrated into performance management processes, its potential to drive career advancement remains partially untapped — representing an important strategic opportunity for banking management in Rivers State. These findings are consistent with the RBV theory proposition that HRIS constitutes a strategic organizational capability that generates competitive advantage through superior HR decision-making, and with the Diffusion of Innovation theory's explanation of varying adoption levels across organizations.

Based on these findings, the following recommendations are presented:

1. Deposit money banks in Rivers State should invest strategically in comprehensive HRIS platforms with integrated performance appraisal modules — including digital goal-setting, real-time monitoring, 360-degree review tools, and performance analytics dashboards — to fully leverage the HRIS–E-PA relationship demonstrated in this study.
2. Banks should extend HRIS integration into career advancement functions by implementing digital career path modeling tools, internal job posting portals, e-learning management systems, and succession planning modules that leverage the rich employee data maintained in HRIS platforms.
3. HR professionals in the banking sector should receive continuous training in HRIS utilization particularly in leveraging HRIS data for appraisal design, career counseling, and succession planning to ensure that technology investments translate into improved HR outcomes.

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