

E-HRM Practices and Sustainable Healthcare Performance: The Mediating Role of HR Service Delivery

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Abstract

Purpose: This research aims to assess the impact of the use of E-HRM on hospital sustainability and to explore the mediating role of HR service quality using the triple bottom line (TBL) and the ability-motivation-opportunity (AMO) model.

Methodology: Using a quantitative survey method, this research examined 325 hospital employees, from IT, HR, administrative and nursing roles. The E-HRM practices investigated were e-recruitment, e-performance management, e-training and development, e-compensation and e-communication. Hypotheses were tested using partial least squares structural equation modelling (SmartPLS) with 5,000 bootstrap samples.

Results: The study showed satisfactory validity and reliability for the measurement model. E-HRM practices were found to have a positive impact on HR service quality and on sustainable hospital performance. HR service quality was also found to have a positive impact on sustainable hospital performance. Furthermore, there was partial mediation between E-HRM practices and sustainable hospital performance via HR service quality.

Practical implications: Managers within hospitals should look to adopt E-HRM as an aid to personal HR support and should focus on quality HR service that is both reliable and available to assist in the reduced workload of healthcare professionals.

Originality/value: This paper provides a link between E-HRM and sustainable hospital performance via HR service quality. It also uses AMO and TBL within a hospital context and provides information regarding digitalisation of hospitals with a focus on the people element.

Keywords: E-HRM practices, HR service quality, Sustainable hospital performance, PLS-SEM, triple bottom line

1. Introduction

Sustainability in healthcare today includes sustainability in organisational performance, staff engagement and long term sustainability (Alhaider & Din, 2026). With the rising costs and rising complexity associated with healthcare today, institutions are more likely to utilise electronic HRM to improve decision making and streamline processes (Kisahwan et al., 2025; Parveen & Alraddadi, 2024).

The advantages of E-HRM are also associated with the improvement of HR service delivery which in turn can contribute to improved sustainability in healthcare institutions (Khalid et al., 2025; Shamout et al., 2021). This research believes that HR service delivery can play an important mediating role in the relationship between E-HRM and sustainability in healthcare institutions (Kutaula et al., 2024). Sustainable management in healthcare is important in achieving social, environmental and financial sustainability within institutions (Kailay & Paposa, 2024). With the use of E-HRM hospitals are able to increase the accuracy and responsiveness of their services, leading to a better development of the so called social and human capital which in turn can improve sustainability within the institution (Chin et al., 2023). This research aims to examine the relationship between sustainability in healthcare and the implementation of electronic HRM. It will also aim to investigate the mediation role HR service delivery can play in this relationship. This study will focus on the link between digitalisation and sustainability in institutions. It is suggested that the implementation of consistent digital HR interfaces can improve processes and lead to more consistent results (Istanti et al., 2025). Improving HR service delivery will also aid in achieving socio economic sustainability by helping to reduce employee turnover and better resource management (Sharifa et al., 2025). This study investigates the effects of Green e-Human Resource Management (Green e-HRM) on sustainability performance within hospitals. Green e-HRM includes e-HRM management with environmentally friendly considerations for reduced resource usage, efficiency and enhanced social accountability (Yamarthi, Balaji, Mukherjee, et al., 2026). Improving HR services will also allow for better management of administrative processes that are aligned with staff and patient needs (Alqarni et al., 2023). Ultimately, this empirical inquiry aims to clarify the pathways through which technological adoption facilitates service quality, thereby enabling healthcare institutions to attain higher levels of sustainable performance (Aityassine, 2022). To achieve this, the study examines how digital integration influences the effectiveness of human capital management, thereby establishing a strategic framework that links modern administrative practices to long-term institutional stability (Mousa et al., 2025). By prioritizing the optimization of these digital workflows, healthcare organizations can effectively leverage HR service delivery to harmonize internal human capital strategies with broader institutional objectives (Li & Pan, 2026). This research further elucidates that the digitization of administrative functions serves as a vital conduit for translating organizational policy into sustainable operational outcomes (Mheiri et al., 2021). By analyzing HR service delivery as a mediator, this study illustrates how digitized administrative processes may foster the organizational agility required to sustain performance in high-pressure healthcare environments. The mediating pathway therefore draws attention not only to the adoption of digital HR systems, but also to whether they provide accessible, dependable support that enables staff to perform effectively; research in other sectors similarly identifies HR service quality as a channel linking E-HRM with performance, while healthcare applications must also account for workforce well-being (Saeed et al., 2025; Tursunbayeva, 2019).

2. Literature Review

2.1. E-HRM Practices

In the hospital context, E-HRM encompasses a suite of networked information technologies that automate and support critical personnel functions, ranging from strategic workforce planning and talent acquisition to the management of complex staffing data and internal communication protocols (Alomari, 2023). These systems facilitate the shift toward HRM 2.0, allowing hospitals to manage dynamic professional shortages and enhance information exchange through automated, data-driven interfaces (Shiddeshi et al., 2024). The study highlights the need for e-HRM in the healthcare sector to be employed as a strategic HR performance tool and sustainability enabler, there is a call to increase the level of awareness, training, and infrastructural support in so far as they can support the optimal benefits of e-HRM implementation (Yamarthi et al., 2026). These digital platforms further enable real-time tracking of clinician credentials and performance metrics, thereby reducing administrative burdens while increasing the accuracy of workforce deployment (Virmani et al., 2025). Such digital infrastructures serve as essential dynamic capabilities that allow healthcare organizations to transform administrative resources into consistent, sustainable operational outcomes (Alajlouni et al., 2026). By integrating these technological tools, hospitals ensure that human resource policies are consistently executed, which is fundamental for maintaining the high-quality service delivery required to support clinical staff (Bondarouk et al., 2015). Sustainable healthcare performance refers to an organization's capacity to maintain clinical and administrative excellence over time by simultaneously balancing economic efficiency with the social requirements of a high-stress workforce. This concept of sustainability necessitates that E-HRM not only optimizes logistical workflows but also promotes organizational longevity by cultivating the flexibility needed to navigate volatile market demands and workforce turnover (Ali et al., 2024). Moreover, HR service delivery functions as the crucial conduit through which these technological capabilities are translated into high-value configurations, directly impacting employee satisfaction and individual performance (Guenuni et al., 2025). By streamlining transactional tasks such as performance tracking and professional development, these digital systems empower HR departments to act as strategic partners rather than mere administrative silos (Almashyakhi, 2022; D et al., 2025). who can use workforce information to anticipate staffing needs and respond to employees' concerns, rather than focusing solely on routine transactions. In healthcare, this approach must balance administrative efficiency with staff well-being, while organizational commitment offers a potential link between E-HRM and sustainable outcomes (Ahmed, 2025; Tursunbayeva, 2019).

2.2.1. E-HRM Practices and Sustainable Healthcare Performance

Within this domain, organizational health emerges as a critical determinant of long-term viability, defined by an institution's capacity to maintain continuous growth and operational effectiveness while fostering employee satisfaction (AlHamad et al., 2022). Such performance is fundamentally bolstered by E-HRM systems that increase the effectiveness of HR processes, ultimately reducing employee turnover and enhancing overall organizational resilience (Al-Ameryeen et al., 2024). Furthermore, these technological enablers contribute to institutional sustainability by facilitating the data-driven optimization of human capital, which directly translates to improved quality and efficiency in service

output (Khan, 2026; Mansour et al., 2023). By centralizing administrative data, these digital frameworks ensure that talent development and performance appraisal systems remain transparent and equitable, which are essential prerequisites for long-term clinical excellence (Boudreau et al., 2019). Moreover, the seamless integration of digital tools enhances interpersonal coordination between management and medical personnel, fostering an environment where clinical staff feel better supported and professionally engaged (Jouni, 2025; Wijaya et al., 2025). By leveraging these dynamic capabilities, hospitals can effectively translate motivation-enhancing E-HRM practices into stable systems that directly bolster firm-wide clinical outcomes (Bag et al., 2021). Consequently, the adoption of these technologies supports the organizational shift toward sustainability by balancing economic efficiency with the social mandate to reproduce and retain a high-quality human resource base over the long term (Maley, 2024). From a triple-bottom-line perspective, HR tools can embed environmental and social values in organizational sustainability strategies, but in hospitals their digital implementation must balance efficiency and productivity with workforce well-being and satisfaction (Álvarez-Gutiérrez et al., 2022; Tursunbayeva, 2019). Moreover, the digital transformation of HR functions provides a structural framework for integrating environmental objectives into core personnel processes, thereby aligning workforce engagement with broader organizational sustainability goals (Ajadi et al., 2026). Furthermore, the strategic application of Smart HR 4.0 leverages big data and predictive analytics to refine decision-making processes, ensuring that hospital operations remain agile enough to mitigate workforce shortages while simultaneously advancing long-term organizational viability (Panchbhai et al., 2025a, 2025b). In hospitals, these analytical capabilities can inform workforce allocation and retention interventions, but their contribution to sustainable performance depends on responsible data use and attention to staff well-being (Tasleem, 2026; Tursunbayeva, 2019).

2.2.3. E-HRM Practices and HR Service Delivery

This dimension refers to the efficiency and precision with which HR functions such as recruitment, compensation, and performance management are executed through digital platforms to meet the needs of both the organization and its employees (Shouraki et al., 2024). When these functions are optimized, the resulting improvements in HR information system success directly enhance organizational agility and long-term corporate sustainability (Priyashantha et al., 2022). By streamlining the delivery of these services, hospitals create a robust framework where administrative responsiveness acts as a vital bridge between technological implementation and high-performance clinical outcomes (Mahmoud et al., 2025). Furthermore, this mediator clarifies how the automation of routine personnel interactions minimizes administrative friction, allowing clinicians to dedicate more time to patient-centered care (Chawla et al., 2025). This optimization of service delivery ensures that administrative processes are not merely automated, but also aligned with ethical and inclusive principles that govern long-term value creation (Aulia, 2025). Beyond mere efficiency, effective service delivery functions as a strategic enabler that empowers employees by providing the resources necessary to cultivate their individual psychological strengths and adaptive capacities (Yadav, 2025). This alignment ensures that the digital transformation of administrative functions acts as a structural amplifier for ability, motivation, and

opportunity, thereby reinforcing the overall readiness of the workforce to meet evolving clinical demands. Consequently, high-quality HR service delivery serves as a critical conduit for translating E-HRM adoption into measurable improvements in workforce resilience, ensuring that hospitals maintain operational continuity amidst the complexities of Industry 5.0 (Adisa et al., 2024). This mediation mechanism further underscores how the strategic governance of digital HR innovations can systematically foster the organizational agility required for long-term sustainability (Bhargavi et al., 2026). HR service delivery provides a practical pathway for translating E-HRM investments into performance gains: evidence from telecommunications organizations indicates that HR service quality mediates the relationship between E-HRM and organizational performance (Saeed et al., 2025). In healthcare, human resource practices and information technology capabilities are associated with workforce agility, which in turn mediates their effects on job performance (Falla et al., 2025), highlighting the importance of responsive HR services in helping hospitals adapt while sustaining workforce and operational outcomes.

2.2.4. The Mediating Role of HR Service Delivery

Accordingly, perceived HR service quality is a key mediating pathway through which E-HRM influences organizational outcomes (Saeed et al., 2025). This mediation process highlights how the shift from labour-intensive administrative tasks to technology-supported platforms facilitates more strategic, integrated HR interactions that directly enhance the quality of services provided to medical staff (Iqbal et al., 2019). By shifting the burden of routine personnel management to digital systems, hospitals can ensure that HR practitioners act as strategic partners rather than mere administrators, thereby elevating the perceived value of internal support services (Iqbal et al., 2019). This evolution allows management to leverage cloud-based platforms for real-time information exchange, ensuring that standardized HR transactions consistently bolster the organizational capability to navigate complex operational shifts (Chowdhury, 2024). This transformation of the HR function reinforces the synergy between technological appropriation and organizational responsiveness, ensuring that digital service delivery remains adaptive to the evolving needs of healthcare professionals (Shahreki et al., 2024). Furthermore, by utilizing AI to create personalized development programs and real-time feedback loops, hospitals can systematically enhance employee engagement and job satisfaction, which serves as a crucial mediator for long-term sustainability (Jia & Hou, 2024). At a broader organizational level, AI capability encompasses not only technological assets but also staff expertise and organizational resources, and hospital evidence links this multidimensional capability to stronger HR functions and more equitable workforce distribution (Chen et al., 2025). Such sophisticated digital integration ensures that administrative responsiveness directly correlates with enhanced organizational flexibility and strategic adaptability in high-pressure clinical environments (Martins, 2026). By mitigating the prevalence of information errors and enhancing the precision of HR control, these digital infrastructures elevate the reliability of service delivery. This improvement in process reliability serves as a foundational element that fosters a more supportive environment, enabling personnel to manage their administrative and patient-related responsibilities with increased comfort and effectiveness (Priksht et al., 2021).

2.5. Conceptual Model

The proposed framework integrates E-HRM practices as the primary antecedent, positioning HR service delivery as a mediator to analyze its direct influence on sustainable hospital performance indicators. Specifically, the model posits that as hospitals refine their digital infrastructure, the resulting increase in service delivery quality acts as a catalyst for sustainable outcomes by harmonizing technical capabilities with strategic personnel management (Al-Ayed, 2025). This finding is consistent with evidence that organizational sustainability mediates the relationship between AI adoption and digital HRM outcomes, although it does not establish an effect on clinical resilience in hospitals (ALMAGHARBEH et al., 2025).

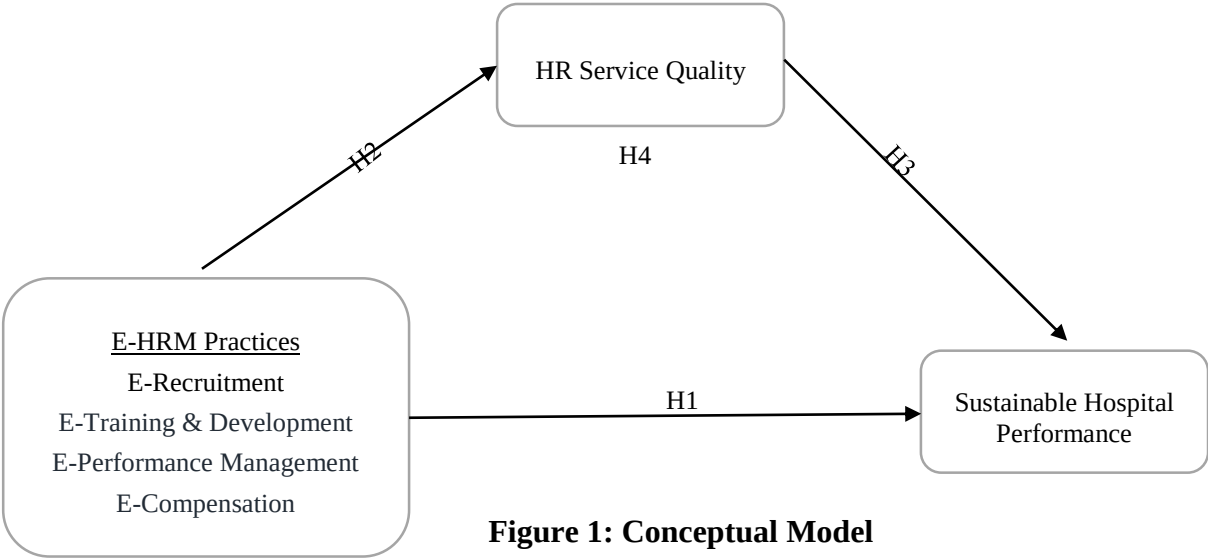


Figure 1: Conceptual Model

3. Methodology

3.1. Research Design

This study utilizes a cross-sectional, quantitative research design involving surveys administered to management and clinical personnel across a national network of tertiary hospitals. This study operationalizes E-HRM practices through a multi-dimensional scale encompassing operational, relational, and transformational digital modules, while sustainable hospital performance is measured via balanced scorecard metrics focused on workforce retention, clinical quality, and resource efficiency. To test the mediating role of HR service delivery, the research employs structural equation modeling to evaluate the indirect effects of digital administrative efficacy on hospital outcomes.

3.2. Population and Sampling

The study population consists of department heads, HR managers, and clinical supervisors drawn from a stratified random sample of urban tertiary healthcare facilities. Participants were selected based on their direct involvement in HR digital platform utilization, ensuring the data reflects nuanced perspectives on both technical infrastructure and service delivery outcomes. Data collection was conducted using a standardized digital instrument, ensuring a high response rate and minimizing potential bias across diverse clinical departments. Data analysis was subsequently performed using partial least squares path modeling to rigorously assess both the measurement and structural components of the proposed mediation framework.

3.4. Research Instrument and Measurement

The survey instrument incorporates validated scales to quantify the breadth of E-HRM usage, the perceived efficacy of digital service delivery, and longitudinal sustainability indicators. To ensure construct validity, items were subjected to confirmatory factor analysis, confirming that the latent variables exhibit robust internal consistency and convergent validity across the sampled hospital sites. Additionally, discriminant validity was assessed by comparing the average variance extracted for each construct against the squared inter-construct correlations, ensuring that the theoretical distinctions between E-HRM, HR service delivery, and performance outcomes remain statistically distinct. Finally, control variables including hospital bed capacity, regional location, and total annual patient volume were integrated into the model to account for potential confounding effects on organizational performance.

4. Data Analysis

The data analysis phase involves a two-stage structural equation modeling approach to validate the hypothesized mediation paths and estimate the magnitude of direct and indirect effects. Specifically, bootstrapping procedures are implemented to construct 95% confidence intervals, thereby confirming the statistical significance of HR service delivery as a transmission mechanism between technological adoption and organizational outcomes. Furthermore, multi-group analysis is conducted to determine whether these relationships remain invariant across varying levels of hospital digital maturity and organizational scale. This methodological rigor ensures that the findings accurately reflect the complexity of healthcare ecosystems while providing a granular understanding of how digital maturity shapes the efficacy of HR interventions. Moreover, common method bias is addressed through the application of Harman’s single-factor test and the inclusion of an unmeasured latent method factor to ensure the robustness of the structural estimates.

Table 1: Demographic Profile of the respondents (n=325)

Variable	Category	Frequency	Percentage %
Gender	Male	215	66.15%
	Female	110	33.85%
Age	20-25 Years	75	23.08%
	26-30 Years	135	41.54%
	31-35 Years	65	20.00%
	Above 35 Years	52	16.00%
Income level (in Rs)	10000-20000	130	40.00%
	20000-30000	100	30.77%
	30000-40000	60	18.46%
	Above 40000	35	10.77%
Education	Diploma/Equivalent	70	21.54%
	Degree	135	41.54%
	Post-Graduation	120	36.92%

Designation	HR Professionals	42	12.92%
	Admin Staff	90	27.69%
	Nursing Staff	158	48.62%
	IT Staff	35	10.77%

Table 1 shows 325 sample data consists of more males than females 66.15% males and 33.85% females. About 41.54% of the sample lies in the age bracket of 26-30. 23.08% in the age bracket of 20-25. 20.00% in the age bracket of 31-35 and 16.00% above the age of 35. 40.00% are earning between the range of Rs 10,000-20,000. 30.77% are earning between the range Rs 20,000-30,000 and only 10.77% of the sample are earning more than Rs 40,000. 41.54% of the sample has a degree. 36.92% have a post-graduation and 21.54% have a diploma. 48.62% of the sample are from nursing. 27.69% are from admin. 12.92% are from HR and 10.77% are from IT. The sample consists of mostly young people and mostly from working level in the hospital. Hence, the data more or less represents the opinions of support and frontline workers in the hospital.

4.2. Measurement Model

Table 2. Confirming this, the results from the measurement model show that all three factors have convergent validity and good reliability. All three constructs have Cronbach's alphas above 0.70 which is desirable as they show good internal consistency. The alpha for E-HRM Practices is 0.965, for HR Service Quality is 0.920 and for Sustainable Hospital Performance is 0.932. Composite reliability for E-HRM Practices is 0.966, for HR Service Quality is 0.920 and for Sustainable Hospital Performance is 0.934. All of these are above the recommended 0.70 level and so all constructs are reliable. Average variance extracted for E-HRM Practices is 0.724, for HR Service Quality is 0.757 and for Sustainable Hospital Performance is 0.732. All these are above the recommended 0.50 value, meaning that in each construct more than 70% of the variance in the observed measures is accounted for which is evidence of convergent validity. All factor loadings are above 0.70 ranging from 0.807 to 0.883. This means all the items make meaningful contributions to their respective constructs and none can be deleted. The relatively high alpha and CR for E-HRM Practices (greater than 0.95) may indicate some redundancy in some of the items however with twelve items in four sub dimensions this should be expected. All constructs are reliable and valid and can therefore be used in the structural model.

Table 2: Construct reliability and validity

Constructs	FL	Cronbach's Alpha (α)	CR	AVE
E-HRM Practices		0.965	0.966	0.724
EC1	0.837			
EC2	0.863			
EC3	0.855			
EPM1	0.866			
EPM2	0.838			
EPM3	0.870			
ER1	0.868			
ER2	0.830			

ER3	0.879			
ETD1	0.807			
ETD2	0.849			
ETD3	0.847			
HR Service Quality		0.920	0.920	0.757
HRSD1	0.874			
HRSD2	0.874			
HRSD3	0.865			
HRSD4	0.873			
HRSD5	0.864			
Sustainable Hosp Performance		0.932	0.934	0.732
SHP1	0.869			
SHP2	0.883			
SHP3	0.862			
SHP4	0.869			
SHP5	0.868			

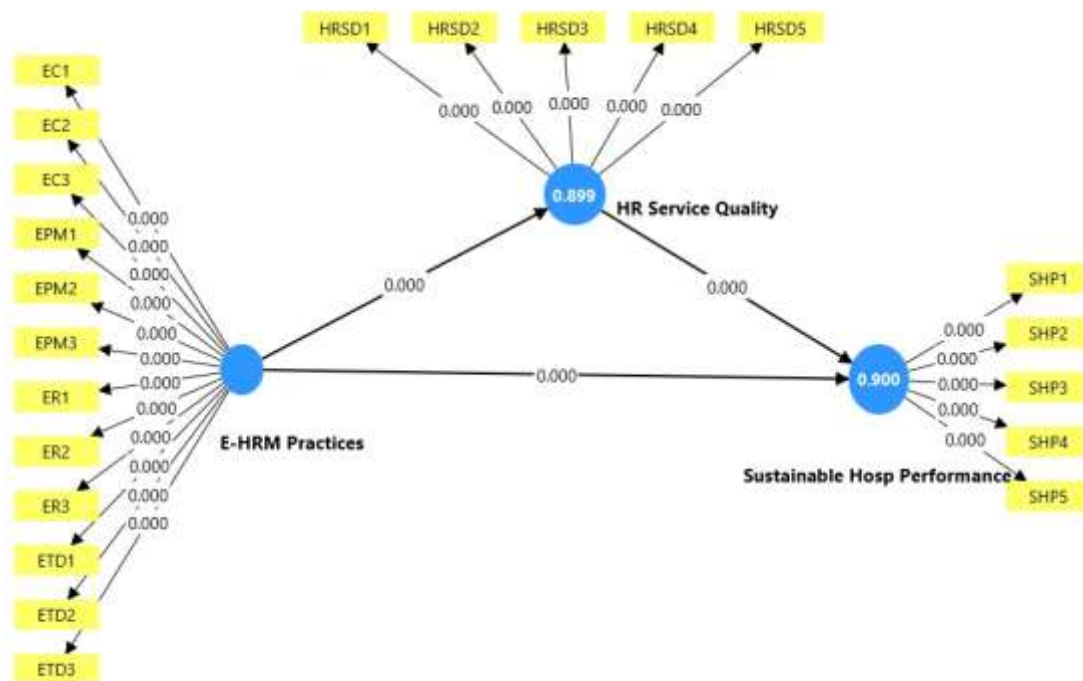
4.3. Discriminant Validity

Finally, discriminant validity is tested using the Fornell & Larcker (1981) method. This method looks at the square root of the AVE for a construct and compares it to the correlation between a construct and all the other constructs. The diagonal values in the table are the square roots of the AVEs for each construct. Each of these diagonal values is higher than the correlations between the constructs found in the off-diagonal cells. There should also be acceptable discriminant validity at the construct level when the variance explained in the indicators of a construct is higher than the covariance exhibited across the indicators of the other constructs. A more rigorous technique for testing discriminant validity is also available via the heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015). Voorhees et al. (2016) recommend HTMT values less than 0.85 in order to indicate that constructs are not overly overlapping or conceptually related and thus not invalid. **Table 3** displays all HTMT values as significantly less than 0.85. Even the largest HTMT value is quite low. This indicates that there are no issues of multicollinearity or comparability between constructs. Thus, discriminant validity can be established via both the Fornell & Larcker and HTMT methods and the tested model can be used for structural model analysis as it is statistically valid.

Table 3: Fornell-Larcker criterion

Construct	E-HRM Practices	HR Service Quality	Sustainable Hosp Performance
E-HRM Practices	0.851		
HR Service Quality	0.948	0.870	
Sustainable Hosp Performance	0.944	0.926	0.870

Figure 2: Structural Equation Modeling



Hypotheses testing based on the path coefficients

PLS-SEM analysis was conducted using the bootstrapping technique in SmartPLS. A total of 5,000 subsamples were generated from the 325 valid cases using 5% level of significance (Henseler et al., 2009). Table 4 presents the path coefficients, standard errors, t-values and p-values for the direct and indirect effects of E-HRM practices on sustainable hospital performance, HR service quality. The analysis reveals that there exists a significant and positive direct relationship between E-HRM practices and sustainable hospital performance ($\beta = 0.654$; $t = 11.317$; $p < 0.001$). Hence, Hypothesis H1 is accepted. This also implies that hospitals that adopt technology in HR such as recruitment, training, performance and compensation can contribute to sustainable hospital performance. There exists a very strong relationship between E-HRM practices and HR service quality ($\beta = 0.948$; $t = 146.106$; $p < 0.001$). Hence, Hypothesis H2 is accepted. This implies that E-HRM practices that use technology have a significant influence on reliability, efficiency and responsiveness of HR services to staff. There also exists a positive relationship between HR service quality and sustainable hospital performance ($\beta = 0.306$; $t = 5.179$; $p < 0.001$). Hence, Hypothesis H3 is accepted. Further, there exists a significant indirect relationship between E-HRM practices and sustainable hospital performance through HR service quality ($\beta = 0.290$; $t = 5.180$; $p < 0.001$). Hence, Hypothesis H4 is accepted. The relationship is partial (complementary) since the direct relationship between E-HRM practices and sustainable hospital performance is also significant. This also implies that besides a direct influence, E-HRM practices can contribute to sustainable hospital performance through an indirect influence via enhancing HR service quality. The results therefore validate the model as proposed and also confirm that E-HRM practices can contribute to sustainable hospital performance. Enhancing HR service quality can further contribute to the long term environmental, social and economic sustainability of a hospital.

Table 4: Path Coefficient

Variables	Original sample (O)	Standard deviation (STDEV)	T statistics	P values	Hypotheses
E-HRM Practices -> Sustainable Hosp Performance (H1)	0.654	0.058	11.317	0.000	H ₁ Supported
E-HRM Practices -> HR Service Quality (H2)	0.948	0.006	146.106	0.000	H ₂ Supported
HR Service Quality -> Sustainable Hosp Performance (H3)	0.306	0.059	5.179	0.000	H ₃ Supported
HRM Practices -> HR Service Quality -> Sustainable Hosp Performance (H4)	0.290	0.056	5.180	0.000	H ₄ Supported

5. Discussion

The findings showed that using AMO and TBL as the theoretical basis, E-HRM practices have a positive influence on sustainable hospital performance. This justified hypothesis (H1). E-HRM practices include e-recruitment, e-training, e-performance management and e-compensation as a replacement of paper HR processes. These E-HRM practices help enhance employee skills via availability of digital training, help enhance motivation through availability of performance appraisals and rewards, and helps enhance opportunities via availability of participative online systems (Ababneh, 2021; Ribeiro et al., 2023). They also help support economic and environmental sustainability (Aggarwal et al., 2023; Bindeeba et al., 2025). Additionally, the study also found that E-HRM practices have a very strong positive relationship with HR service quality which justified hypothesis (H2). Digitized HR processes help enhance the reliability, accessibility and responsiveness of HR service to hospital employees. Based on the social aspect of TBL, HR service quality was found to have a positive and significant influence on sustainable hospital performance which justified hypothesis (H3). Good quality HR services help enhance employee satisfaction, perceived organizational support, organizational commitment and well being at work (Lashari et al., 2022; Ribeiro et al., 2022). E-HRM practices are now recognized in health care as a holistic approach to sustainable hospital performance by addressing environmental, economic and social sustainability (Correia et al., 2024; Saleem et al., 2025). Furthermore, HR service quality was also found to partially mediate the relationship between E-HRM practices and sustainable hospital performance since the direct relationship is still significant. Based on TBL and AMO theory, this justified hypothesis (H4) as E-HRM practices were found to be a strategic factor in achieving sustainable hospital performance both directly and through quality HR services.

The study found a statistically significant positive relationship between sustainable hospital performance and the use of E-HRM practices. This justified that the use of digitalization helps enhance resource effectiveness and workforce stability in hospitals (Nyathi & Kekwaletswe, 2023). The study also found that HR service quality partially mediates the relationship between E-HRM practices and sustainable hospital performance. This indicated that the accuracy of digital HR processes helps facilitate human resource strategy. (Garem, 2026). This finding is in alignment with other studies that found HR service quality to mediate the relationship between E-HRM and organizational performance.

This justified the importance of HR service quality in the relationship between E-HRM and sustainable hospital performance (Saeed et al., 2025).

5.1. Theoretical Implications

This study contributes to the Resource-Based View by proposing HR service delivery as a key enabling capability which transforms information systems into a source of durable competitive advantage. This paper also provides evidence that the HR role can play a role in enabling the use of information systems to connect administration to the clinical workforce. Additionally, this paper demonstrates the importance of administrative information system implementation in enabling improvement in internal services which aid in retention of the human resources needed to support the long term viability of healthcare institutions. Finally, this paper provides evidence for a shift in how hospital management should think about E-HRM. Rather than simply an automation of existing processes, E-HRM should be viewed as a mechanism to improve employee oriented services within the hospital organization. Establishing the use of E-HRM within a healthcare organization can help establish a strong internal capability which appropriately supports both clinical and administrative functions within the hospital. This in turn can support both the high volume of clinical services as well as appropriate levels of administrative services within the hospital. This can also aid in administrative flexibility within the hospital organization and contribute to the viability of the hospital organization and quality of patient care within the organization. In addition, future hospital management can further improve these services by leveraging across organizational data to further optimize the services provided. As healthcare continues to undergo the effects of information system implementation, ongoing integration between clinical staff and information systems within HR will be key to ensuring that improvements in administration are appropriately connected to the needs of patient oriented services.

5.2. Practical Implications

Hospital administrators can facilitate training in the use of digital technology to help health care administrators use E-HRM systems to supplement, not substitute, individual provider interactions. If administrators focus on incorporating E-HRM systems into their work processes, they will decrease the burden on individual providers and allow more time for higher quality patient-provider interactions. Additionally, administrators can use the feedback systems available in E-HRM to better adapt HR functions to the shifting workload demands of the clinicians. Through this process, hospitals can promote care quality, organizational sustainability, and an ability to handle the complexity of healthcare administration within a more digitally focused health care system while also addressing the issue of clinician burnout. Therefore, there is a need for hospitals to utilize digital HR systems in a way that compliments quality patient care and allows for organizational survival within a more digitally oriented health care system while also addressing the issue of clinician burnout. Effective use of digital HR systems is therefore essential for hospitals in order to address both the complexity of administration and the issue of clinician burnout. Hospitals that use digital HR systems as part of a strategic approach to human resource management are more likely to reach an effective balance between clinician health and organizational survival.

5.3. Conclusion

This paper provides evidence that the adoption of E-HRM can be an enabler of sustainable health care through improved mechanisms for HR in health care. Further research can build upon this work by utilizing longitudinal data to examine the influence of digital HR maturity on clinical quality and turnover over time. Other areas for future research include the influence of organizational culture and level of digital competence of the clinical workforce on the influence of digital HR solutions. Cross cultural research can also be useful in evaluating the extent to which the influence of digital HR solutions are generalizable across regions and health care regulatory environments. Lastly, research can be performed on the integration of AI in HR and real-time clinical staffing to better understand the next evolution of digital solutions and their influence on health care sustainability. By examining these multiple factors, a more comprehensive view of the integration of technology and HR can be formed, and the implementation of E-HRM within more digital health care environments can be improved. This will aid in the creation of prescriptive tools that will help health care administrators match their administrative resources to the dynamic needs of clinical operations. This evidence can also be used to better implement digitally informed governance within health care by creating systems that are both technologically advanced and focused on the human side of health care.

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