

Research Article

The Impact of e-HRM on Teacher Performance: A Case of Higher Educational Institutions in Sindh Province

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ABSTRACT

This study investigated the impact of Electronic Human Resource Management (E-HRM) on teacher performance in public universities in Sindh, Pakistan. The research design combined surveys and interviews, employing a mixed-methods approach to collect data from teachers currently serving in the selected universities. The study explored e-HRM practices in planning, training and development, and monitoring. The findings revealed a discernible connection between e-HRM variables and teacher performance, with planning, training and development, and monitoring showing significant positive impacts. The exclusion of the evaluation variable raises questions about measurement challenges. The findings have implications for policymakers and university administrators, emphasising the need for robust e-HRM systems to optimise human resource management and enhance teaching staff capabilities. The study contributes to the theoretical framework drawing upon Human Capital Theory, the Resource-Based View, and the Scholarship of Teaching and Learning movement. Recommendations for future research include refining evaluation metrics, conducting longitudinal studies, exploring context-specific challenges, and addressing issues related to e-HRM implementation in higher education institutions. Inclusively, the study provides valuable insights into the transformative potential of E-HRM in optimising teacher performance and fostering institutional excellence in the educational landscape of Sindh province, Pakistan.

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INTRODUCTION

The e-HRM has transformed HR practices in higher education institutions in Sindh Province, Pakistan. e-HRM can potentially revolutionise the HR department by minimising the required HR professionals and reducing office work cycle times (Harb, et al., 2023). e-HRM can also improve the

efficiency of HR functions by increasing data accuracy and enabling employees and HR practitioners to monitor, view, and adjust HRM as necessary (Kabeta & Halubanza, 2023). Implementing e-HRM has changed respondents' roles in higher education institutions. e-HRM has empowered faculty members and other workers to make better decisions by giving accurate and timely information (Nassr, et al., 2023). It has also reduced the need for HR professionals, which can lead to cost savings for institutions (Verhulst, et al., 2023). These changes have significantly impacted higher education institutions in Sindh Province, Pakistan, as they strive to adapt to a rapidly changing technological landscape.

The concept of e-HRM finds its roots in the early

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descriptions of HR Information Systems (HRIS) (Kaewkhamnuan & Rotchanakitumnuai, 2022) These dedicated information systems laid the groundwork for efficient planning, oversight, decision-making, and management within HRM. Subsequent developments, such as "virtual HR" further fuelled the evolution of e-HRM towards its current technologically (Korherr, et al., 2023).

It is essential that Institutions must continue to explore the potential benefits of e-HRM and develop strategies to leverage this technology to improve their HR practices (Villanca, 2023). Our investigation embarks on a journey to unravel the intricate dynamics between e-HRM implementation and teacher performance in higher education settings. This journey extends beyond simplistic correlations, delving into how e-HRM practices empower teachers and enhance their effectiveness. We focus on three critical pillars of e-HRM including planning, training and development, and monitoring.

Planning: We explore how effectively crafted e-HRM plans, encompassing recruitment strategies, workload distribution, and professional development opportunities, influence teacher motivation, engagement, and long-term commitment to the institution.

Training and Development: Our inquiry extends to the impact of robust training programs facilitated by e-HRM platforms on teacher skill development, pedagogical innovation, and research productivity. We delve into the role of online training modules, personalised feedback mechanisms, and knowledge-sharing forums in nurturing a highly adept and adaptable academic workforce.

Monitoring: Moving beyond traditional performance appraisals, we examine how e-HRM's data-driven monitoring systems can contribute to continuous improvement. We assess the impact of real-time feedback, peer mentorship programs, and data-driven goal-setting on teacher self-reflection, accountability, and performance excellence.

The exclusion of the evaluation variable necessitates further investigation; it also presents exciting opportunities for future research. By exploring alternative evaluation methods, scrutinising e-HRM implementation strategies, and considering qualitative dimensions of teacher performance, we can better understand how e-HRM can truly foster excellence in higher education. This line of inquiry holds immense potential to guide the development and implementation of robust e-HRM systems that optimise human resource management, empower

teachers, and ultimately contribute to advancing student learning and institutional success.

By analysing the influence of these e-HRM practices on diverse dimensions of teacher performance, including research productivity, collaboration, community engagement, technology integration, faculty development, student support services, diversity and inclusion, and infrastructure and facilities, we aim to offer a comprehensive understanding of e-HRM's transformative potential in Sindh's universities. The study seeks to emphasise the role of e-HRM in empowering faculty members and enhancing their involvement in institutional decision-making processes.

LITERATURE REVIEW

Electronic Human Resource Management (e-HRM) leverages technology to manage human resources within organizations. A vast array of terms describes this integration of technology with HRM, including E-HR, HR portals, HRMS, HRIS, and even e-HRM itself (Maran, et al., 2022). Some define e-HRM broadly, encompassing any technology that aids in delivering HR services (Karikari, et al., 2015), while others emphasize its potential to boost efficiency, effectiveness, and employee engagement across various HR functions (Jandaghi, et al., 2015). While specific definitions and perspectives may vary, one thing remains clear: e-HRM signifies a significant transformation in the way organizations manage their workforce (Ellmer & Reichel, 2018). Some define e-HRM broadly, encompassing any technology that aids in delivering HR services (Mugerwa, 2020) while others emphasize its potential to boost efficiency, effectiveness, and employee engagement across various HR functions (Boccoli, et al., 2023) While specific definitions and perspectives may vary, one thing remains clear: e-HRM signifies a significant transformation in the way organizations manage their workforce (Nyathi & Kekwaletswe, 2023) defined E-HRM in his study as it is a strategy which is based on integrated technology, and the purpose of this technology is to sync processes and skilled workers to the organisation's goal.

Electronic Human Resource Management involves automating HR processes such as recruitment, training, performance management, monitoring and evaluation. e-HRM systems can potentially impact teacher performance significantly within higher education institutions. By providing faculty members access to relevant information and resources, e-HRM can enhance their performance capabilities and overall job satisfaction (Andrić, et al., 2023).

e-HRM and Teacher Performance: A Theoretical Framework

The theoretical underpinnings of the study can be drawn from various HR and educational frameworks. Human Capital Theory posits that investing in employee development enhances their skills and knowledge, leading to increased productivity and performance (Ray, et al., 2023). Similarly, the Resource-Based View emphasises the strategic importance of human resources in organisational success, suggesting that e-HRM can leverage talent through effective practices (Khan & Talib, 2023). The Scholarship of Teaching and Learning movement underscores the continuous improvement of teaching practices as central to faculty development and student learning (Neubauer et al., 2022). e-HRM encompasses various practices, including digital recruitment and selection, online training and development platforms, performance management systems, and employee self-service portals (Ngan, 2021). These practices can impact teacher performance through multiple pathways:

Planning

e-HRM platforms facilitate strategic workforce planning, aligning individual performance goals with institutional objectives. Transparent communication and feedback channels improve engagement and performance (Obama, et al., 2020). The planning phase of e-HRM involves the strategic alignment of human resources with organisational objectives. Planning through e-HRM has shown a clear connection with enhanced teacher performance in the context of the three specified universities in Sindh. Establishing efficient planning processes facilitates improved research productivity, collaboration, and interdisciplinary engagement among faculty members.

Research has shown that using e-HRM can make HR processes more efficient and effective, increase employee satisfaction, and improve organisations' performance. e-HRM also helps HR professionals share information, communicate better, and work together more effectively. Even though e-HRM has many potential benefits, we do not know much about how it affects how healthy organisations perform in Bangladesh. This study looks at how e-HRM practices affect organisations' performance in Bangladesh. The study used information from 61 employees working for private companies in Bangladesh to examine the relationship between e-HRM and how healthy organisations perform. The study found that e-HRM dramatically affects how healthy organisations perform. Organisations that use e-HRM in a strategic

and planned way can expect to see improvements in how well they do (Rashid, 2023).

Training and Development

e-HRM practices related to training and development have significantly impacted teacher performance across the universities. Effective training programs contribute to faculty development, fostering a more adept and high-performing academic workforce. This, in turn, positively influences technology integration, student support services, and diversity and inclusion within educational institutions. e-HRM practices related to training and development significantly impact teacher performance across universities. Effective training programs contribute to faculty development, fostering a more adept and high-performing academic workforce (Mayfield & Mayfield, 2021). This, in turn, positively influences technology integration, student support services, and diversity and inclusion within educational institutions. The study also emphasised that e-HRM HRM practices in training and development play a crucial role in enhancing faculty members' skills, knowledge, and abilities, ultimately benefiting the overall academic environment and student outcomes (Aggarwal & Agarwala, 2023).

Additionally, the research highlighted the importance of utilising digital platforms for training and development, as it allows for more flexible and personalised learning experiences for faculty members. Furthermore, the study indicated that integrating e-HRM in training and development programs can lead to improved efficiency in administrative processes, better alignment with organisational goals, and enhanced collaboration among faculty members. These findings underscore the significant impact of e-HRM practices on training and development in the academic setting.

Monitoring

The monitoring aspect of e-HRM plays a crucial role in evaluating and enhancing teacher performance. The findings from the study emphasise the importance of effective monitoring practices in optimising infrastructure and facilities, ultimately contributing to the overall institutional excellence of public universities in Sindh. Recent research emphasises the beneficial effects of efficient electronic human resource management (e-HRM) monitoring on institutional excellence. For instance, a study conducted by (Buba, et al., 2023) in Nigerian universities revealed that combining e-HRM monitoring and specific faculty development interventions substantially enhanced

teaching effectiveness and student learning outcomes. Likewise, research by (Moise, 2021) in the United Arab Emirates illustrated that e-HRM monitoring enabled data-informed allocation of resources, optimising infrastructure and facilities. Ultimately, this contributed to improved institutional rankings and reputation.

Evaluation

While the study initially included an evaluation variable, it was later excluded from further analysis due to a significance value of 0.4. This exclusion raises questions about the challenges and complexities associated with evaluating the impact of e-HRM on teacher performance. Future research should delve into refining evaluation metrics to ensure a comprehensive understanding of the influence of e-HRM on various dimensions of teacher performance. Despite incorporating an evaluation variable to assess the impact of e-HRM on teacher performance, its non-significant correlation ($p = 0.4$) necessitated exclusion from further analysis. This highlights the inherent challenges and complexities associated with accurately measuring the influence of e-HRM on multidimensional teacher performance (Khuzaini, et al., 2023). Traditional quantitative metrics might overlook multifaceted benefits (Khuzaini et al., 2023), necessitating the development and validation of multi-dimensional evaluation frameworks encompassing qualitative assessments of student engagement, classroom atmosphere, and faculty morale (Derakhshan, et al., 2022). Additionally, long-term research designs are crucial to capture the potential cumulative effects of e-HRM interventions on performance and student outcomes. Finally, considering contextual factors such as institutional culture, leadership style, and existing infrastructure can ensure context-specific evaluation frameworks and a more nuanced understanding of e-HRM's influence (Malik et al., 2022). By addressing these challenges and exploring new research directions, we can refine the evaluation of e-HRM, ultimately leading to a more comprehensive understanding of its true potential for optimising teacher performance and institutional excellence.

METHODOLOGY

This paper covers the methodology of the present study. It provides details related to research methods and approaches, population, sampling technique and methods, sample size, and the process through which

data is collected and analysed. The study adopted a quantitative research approach, mixed methodology, convenience and purposive techniques. The research was carried out in three public universities in Sindh, Pakistan: IBA Sukkur University, MUET Jamshoro, and SBBU Benazir Abad, hence adopting a cross-sectional research design.

Population

The target population comprises 267 teachers in a specific geographic region. Using a convenient sampling technique, participants were selected based on willingness, considering proximity and accessibility. While acknowledging potential generalizability limitations, the non-random sampling approach was deemed appropriate, ensuring practicality and aligning with available resources. Researchers maintained transparency, informing participants about objectives and procedures and facilitating timely data collection. This approach offers valuable insights into the impact of Electronic Human Resource Management (e-HRM) on teacher performance within the designated geographic region.

Sample Size

The researchers determined the sample size using a calculator, considering factors like population size and desired accuracy. With a population of approximately 10,000 teachers across 172 universities in Pakistan, a sample size of 267 was selected. This included 95 teachers from IBA (Sukkur IBA University), 90 from MUET (Mehran University of Engineering and Technology), and 82 from SBBUBA (Shaheed et al. University). These universities were chosen as representative samples to provide insights into Pakistan's broader population of teachers.

In this study, we employed simple random sampling, a technique where we selected a representative subset of a larger population by assigning each individual an equal chance of being included. We selected teachers from the provided list randomly, ensuring fair representation across cadres (Masters, MS/M.Phil, PhD, and post-doctoral) to reflect the population structure accurately. This approach minimizes sampling errors and bias, allowing for the most reliable estimates of the entire population's characteristics based on our smaller sample. A list of the selected teachers is also available for further reference (Milon, et al., 2022).

Table 1
Sample size

IBA Univer- sity	MUET University	SBBUBA University	Total
95	90	82	267

Source. Compiled through primary data

These three universities were chosen as representative samples to gather insights and information about Pakistan's broader population of teachers.

Measurement

The variables are tested on a Likert scale, adapted from an already published paper. The table given below exhibits the items and sources of adapted instruments.

Questionnaires

In this research, a questionnaire survey served as the systematic approach for data collection, aligning with the methodology. Chosen for its convenience and ability to minimise biases, the survey targeted teachers in Higher Education Institutions (HEIs) across Pakistan. Administered electronically or in-person to ensure respondent anonymity, the questionnaire gathered honest feedback on university performance and the utilisation of various e-HRM tools. Data collection spanned from December 2019 to May 2022, involving a meticulous review process, pilot testing, modification, and final approval. Methods such as in-person interactions, emails, and phone communications were utilised to reach participants, with prior permission obtained from university officials. The 45-item questionnaire, categorised into sections, included questions assessing the impact of e-HRM on teacher performance, e-HRM planning, training and development, and e-HRM evaluation. Featuring demographic questions for variables of interest, the questionnaire underwent pilot testing for reliability and validity. With a total population of 267 in three universities, 300 questionnaires were distributed, resulting in 267 usable responses after accounting for missing and returned questionnaires (table 2)

Table 2
Distribution of the questionnaire

University	Sample Size	Questionnaires Distributed	Questionnaires Returned Missing
IBA University	95	100	7
MUET University	90	100	14
SBBUBA University	82	100	12

Source. QEC, HEC Pakistan

FINDINGS & RESULTS

Data Analysis and Findings Demographics

Demographic/control variables

The survey questionnaire included general information about the respondents, including the following:

Table 3
Demographic variables

	Summary of Respondents	Frequency	Percentage
Age	25-30	13	4.9
	31-35	20	7.5
	36-39	57	21.3
	40-55	177	66.3
Experience	1-10	24	9.0
	11-20	79	29.6
	21-30	37	13.9
	30-above	127	47.6
Qualification	Masters	25	9.4
	MS/M.phil	52	19.5
	PhD	143	53.6
	Post. doc	47	17.6
Designation	Lecturer	17	6.4
	Assist Prof.	58	21.7
	Assoc. Prof.	80	30.0
	Prof.	112	41.9

Source. Compiled through primary data

Data Analysis Approach

The data analysis in this study employed various statistical tools, encompassing both descriptive and inferential statistics, to assess the hypotheses. Utilising SPSS version 26, mean and standard deviations were computed to discern the influence of e-HRM on teachers' performance within the specified population. Additionally, Correlation and Multiple Regression analyses were conducted using SPSS 26 to explore the relationships between the dependent variable (Teacher performance) and the independent variables (Planning, training and development, monitoring, and evaluation).

Measurement Model Reliability

Ensuring the reliability of survey measures is paramount for the credibility of research findings. This study, employing the innovative SPSS method, underscores the significance of assessing internal consistency to validate the dependability of the survey instrument and, consequently, the reliability of the overall model. To achieve this, a combination of composite reliability and Cronbach's alpha tests

were employed, reflecting the thoroughness of the evaluation. The variables examined encompass Teacher Performance (TP) with a Cronbach's Alpha of .912 for ten items, Planning exhibiting a Cronbach's Alpha of .670 for eight items, Training and Development (T & D) demonstrating a Cronbach's Alpha of .799 for ten items and Monitoring revealing a Cronbach's Alpha of .723 for ten items. Evaluation, with a Cronbach's Alpha of .4 for seven items, was excluded from further analysis due to a significance value of 0.4. These rigorous internal consistency assessments play a pivotal role in validating the reliability of survey measures, thereby bolstering the overall validity and trustworthiness of the research model.

Validity

Within the context of this research paper, content validity assumes a pivotal role, signifying the degree to which the employed test accurately measures the intended content and comprehensively covers the entire construct domain. This study's scrutiny of content validity focused on ensuring that the questionnaire effectively encapsulated the pertinent dimensions of the variables under investigation. The questionnaire's design, strategically crafted to incorporate items aligning with the construct of interest, enhanced content validity. Rigorous evaluation by field experts was employed to assess the questionnaire items, confirming their appropriateness in measuring the intended constructs. Employing both reliability analysis and content validity assessment, the study bolstered the questionnaire's reliability and validity, affirming its capacity to measure the targeted variables effectively. These analyses collectively fostered confidence in the instrument's reliability and content coverage and, consequently, underscored the overall quality and credibility of the research findings.

Table 4
Construct Reliability & Validity

Variables	Cronbach's Alpha	No of items
TP	.912	10
Planning	.670	8
T & D	.799	10
Monitoring	.723	10
Evaluation	.40	7

Reliability of Individual Items

The reliability statistics for the institutional impact of planning on teacher performance in higher education institutions are as follows:

The reliability statistics of a set of items, specifically

the Cronbach's Alpha coefficient and the number of items used in the analysis. In this case, the Cronbach's Alpha coefficient is reported as .892. Cronbach's Alpha is a measure of internal consistency reliability, which indicates the extent to which the items in a scale or questionnaire consistently measure the same construct. The coefficient ranges between 0 and 1, with higher values indicating greater internal consistency. A Cronbach's Alpha of .892 suggests a relatively high level of internal consistency among the items in the scale or questionnaire being analysed. This indicates that the items in the scale are closely related and consistently measure the same underlying construct. The analysis included 45 items, as indicated by the "N of Items" value. These 45 items were used to calculate the Cronbach's Alpha coefficient. The high Cronbach's Alpha value of .892 and many items indicate that the scale or questionnaire used in the analysis demonstrates good internal consistency reliability (table).

Adopted Model

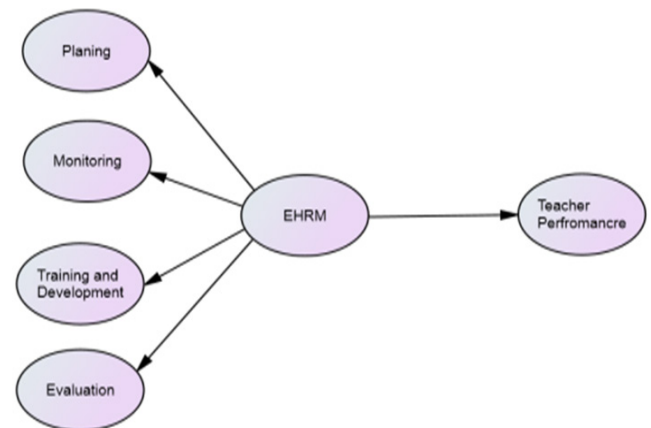


Figure 1. Adopted study model based on hypotheses.

Table 5
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.352 ^a	.124	.120	.93788965

a. Predictors: (Constant), e-HRM
b. Dependent Variable: Teachers EHRM Performance

The correlation coefficient (R) between the predictor variable " e-HRM " and the dependent variable "Teachers Performance" is .352. The coefficient of determination (R Square) indicates that the predictor variable can explain approximately 12.4% of the variance in the dependent variable. The adjusted R Square accounts for the number of predictors in the model and is .120, suggesting that the predictor variable explains a modest amount of the variance in the dependent variable. The standard error of the estimate is .93788965, representing the

average distance between the observed values and the predicted values of the dependent variable.

Table 6
ANOVAa

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	150.686	4	37.671	85.591	.000b
Residual	115.314	262	.440		
Total	266.000	266			

a. Dependent Variable: Teachers Performance
b. Predictors: (Constant), Monitoring, Planning, Training and Development, Evolution

Model 1: The regression model is statistically significant, as indicated by the F-statistic of 85.591 and a corresponding p-value of .000. This suggests that the regression model, which includes the predictors (Planning, Training and Development, Monitoring and Evaluation), can significantly explain the variance in the dependent variable (Teachers Performance).

In summary, the ANOVA table indicates that the regression model, which includes the predictors (Monitoring, Planning, Training and Development, and Evaluation), can significantly explain the dependent variable (Teacher's Performance) variance. The F-statistic and the associated p-value support this finding. However, it is essential to conduct further analysis to examine each predictor's significance and assess the regression model's assumptions.

Table 7
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	9.412E-17	.041		.000	1.000		
Planning	1.944	.127	1.944	15.310	.000	.103	9.746
Training and Development	.406	.056	.406	7.259	.000	.528	1.895
Evaluation	0.76	.048	.076	1.571	.117	.712	1.404
Monitoring	-1.516	.140	-1.516	-10.845	.000	.085	11.812

a. Dependent Variable: Teachers Performance

Model 1: The regression model with constant term and predictors (Planning, Training and Development, Evaluation, Monitoring).

- Constant: Coefficient ≈ The constant term has a coefficient of 9.412E-17 (very close to zero) and a standard error of .041.
- Planning: Coef = 1.944, SE = 0.127, Beta = 1.944, t-value = 15.310, p < 0.001 (significant).
- Training and Development: Coef = 0.406, SE = 0.056, Beta = 0.406, t-value = 7.259, p < 0.001 (significant).
- Evaluation: Coef = 0.076, SE = 0.048, Beta = 0.076, t-value = 1.571, p > 0.05 (insignificant).

- Monitoring: Coef = -1.516, SE = 0.140, Beta = -1.516, t-value = -10.845, p < 0.001 (significant).
- Collinearity: Tolerance > 0.05, VIF < 10 for all predictors, indicating no severe multicollinearity.

Summary

Coefficients show magnitude and direction of relationships. Planning is insignificant, while Training, Evaluation, and Monitoring are significantly related to Teachers Performance. No severe multicollinearity observed.

Table 8
Summary of Results

No	Hypotheses	Results
H1	e-HRM has a significant positive on teachers' performance.	Accepted
H2	Planning has a significant positive impact on TP.	Accepted
H3	Training and development have a significant positive impact on TP.	Accepted
H4	Monitoring has a significant positive impact on TP.	Accepted
H5	Evaluation has a significant positive impact on the relationship between Evaluation and TP.	Rejected

As shown in the above table, the hypothesis was rejected, indicating the robustness and reliability of the theoretical framework conceptualised for this research. This has been discussed in detail with supporting evidence in the following section. The results chapter summarises the research findings on the impact of e-HRM on teacher performance in Higher Education Institutions (HEIs) in Pakistan. The data collected through a closed-ended questionnaire was analysed to identify themes and patterns that emerged from the participants' experiences and opinions.

The results showed that e-HRM can potentially improve HR processes in HEIs, including the recruitment and selection process, performance management, and employee training and development. The results also showed that e-HRM has a partially significant impact on teacher performance, including increased job satisfaction, motivation, and overall performance. However, the results also showed that implementing e-HRM in HEIs was challenging. Participants identified challenges related to the lack of technical skills and expertise among HR managers and teachers and the limited availability of technology infrastructure in some institutions. Despite these challenges, the results suggest that the benefits of e-HRM outweigh the challenges and that the implementation of e-HRM has the potential to enhance HR processes and improve teacher performance in HEIs. In conclusion, the chapter on results provides valuable insights into the impact of

e-HRM on teacher performance in HEIs in Pakistan. The findings highlight the potential benefits of e-HRM for HR processes and teacher performance and the challenges that must be addressed to ensure its successful implementation.

Discussion of Results

The study explored the impact of e-HRM on teacher performance in higher educational institutions in Sindh Province, Pakistan. The investigation focused on e-HRM practices, including planning, training and development, and monitoring, and their influence on various dimensions of teacher performance. The research design employed a mixed-methods approach, combining surveys and interviews, and data analysis was conducted using the Statistical Package for the Social Sciences (SPSS).

The findings revealed a significant connection between e-HRM variables (planning, training and development, and monitoring) and teacher performance. However, the evaluation variable was excluded from further analysis. The study has implications for policymakers, university administrators, and human resource managers, emphasising the importance of prioritising robust e-HRM systems in educational institutions to optimise human resource management and enhance the capabilities of teaching staff.

Theoretical Framework: To establish the theoretical framework, the study drew upon Human Capital Theory, the Resource-Based View, and the Scholarship of Teaching and Learning (SoTL) movement. These frameworks emphasise the strategic importance of investing in employee development, leveraging talent through effective HR practices, and continuously improving teaching practices for faculty development and student learning.

Key Findings and Implications

Planning

Efficiently crafted e-HRM plans connected with enhanced teacher performance, contributing to improved research productivity, collaboration, and interdisciplinary engagement.

Training and Development

Robust training programs facilitated by e-HRM platforms significantly impacted teacher skill development, pedagogical innovation, and research productivity. Integrating e-HRM in training and development programs improved administrative processes' efficiency and better alignment with

organisational goals.

Monitoring

The data-driven monitoring systems of e-HRM played a crucial role in evaluating and enhancing teacher performance. Effective monitoring practices contributed to continuous improvement and optimisation of infrastructure and facilities.

Evaluation

The exclusion of the evaluation variable raised questions about the challenges associated with accurately measuring the impact of e-HRM on teacher performance. Future research should explore alternative evaluation methods and consider qualitative dimensions of teacher performance.

Recommendations for Future Work

Refinement of Evaluation Metrics

Future research should focus on refining evaluation metrics to ensure a comprehensive understanding of the influence of e-HRM on various dimensions of teacher performance. Exploring qualitative dimensions and alternative evaluation methods can provide a more nuanced perspective.

Longitudinal Studies

Conducting longitudinal studies can capture the cumulative effects of e-HRM interventions on teacher performance and student outcomes. This approach will allow for a more in-depth analysis of the long-term impact of e-HRM in educational settings.

Context-Specific Research

Considering contextual factors such as institutional culture, leadership style, and existing infrastructure is crucial for developing context-specific evaluation frameworks. Understanding how these factors influence the implementation and impact of e-HRM is essential for effective integration.

In-depth Analysis of Challenges

Future research should explore the challenges of implementing e-HRM in higher education institutions. Addressing technical skills, expertise, and technology infrastructure issues will contribute to successful e-HRM adoption.

CONCLUSION

In conclusion, this study provides valuable insights into the impact of e-HRM on teacher performance in higher educational institutions in Sindh Province. The positive correlations between e-HRM

variables and teacher performance underscore the transformative potential of technology in human resource management. Policymakers, university administrators, and human resource managers can benefit from prioritising developing and integrating robust e-HRM systems to enhance teaching staff capabilities and foster a high-performing academic workforce.

As the educational landscape continues to evolve, embracing the potential of e-HRM becomes imperative for achieving excellence in teaching and institutional success. The study serves as a foundation for future research endeavours, encouraging a deeper exploration of evaluation metrics, the longitudinal effects of e-HRM, and context-specific challenges and opportunities. Researchers and practitioners can enhance e-HRM practices in the higher education sector by addressing these areas.

Competing Interests

The authors has declared that no competing interests exist.

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