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Impact of Human Resource Digitalization on Employee Performance in Banking Sector of Khairpur Mir's, Sindh, Pakistan

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Abstract

This research is based on effect of Human Resource Digitalization on Employee Performance in banking sector of Khairpur Mir's, Sindh, Pakistan with independent variables being Transactional E-HRM and Transformational E-HRM. A quantitative cross sectional survey design was used, and 265 bank employees were selected using simple random sampling method and a structured 15 item Likert scale questionnaire was used to collect data, which was then analyzed using SPSS version 27 with reliability test, Pearson correlation and multiple regression analysis. The findings reveal that the regression model explains 97.9% of the variance in Employee Performance (R^2 = 0.979, F = 6031.909, $p < 0.001$), with both Transactional E-HRM ($\beta = 0.614$, t = 34.390, $p < 0.001$) and Transformational E-HRM ($\beta = 0.410$, t = 22.945, $p < 0.001$) emerging as significant positive predictors. The results of the correlation analysis indicated that all the variables were positively and highly correlated with each other, with the highest correlation being found for Employee Performance and Transactional E-HRM ($r = 0.967$, $p < 0.01$), followed by Transformational E-HRM ($r = 0.940$, $p < 0.01$) and the instrument had excellent reliability (Cronbach's Alpha = 0.893). The study findings indicate that both dimensions of HR digitalization positively affect the employee performance (with transactional E-HRM showing slightly greater impact); which adds to the existing body of knowledge on HR digitalization in developing countries and fills the existing gaps in literature regarding the implementation of HR digitalization in smaller sized cities in Pakistan, thereby contributing significantly to the body of knowledge on HR digitalization.

Keywords: Human Resource Digitalization, Transactional E-HRM, Transformational E-HRM, Employee Performance, Banking Sector.

Introduction

The modern business landscape is truly in a digital transformation and, as such, it is transforming the way that companies are handling their most valuable asset – people. Organizations are increasingly facing the challenge of ensuring operational efficiency and stay competitive in today's business environment, and the integration of information technology into HR functions, known as Human Resource Digitalization, has become a necessity. Human Resource Digitalization, which involves the application of information technology in HR functions, has become a necessity for organizations aiming to ensure operational efficiency and outcompete in today's business environment (Bondarouk & Ruel, 2013; Marler & Parry, 2015). The banking sector, especially, has led in this digital revolution where Electronic Human Resource Management (E-HRM) systems have been adopted to streamline the administrative process, improve the service delivery and increase the productivity of the banking workforce (Sohail et al., 2021; Manzoor & Sohaib, 2022). In today's ever-evolving financial landscape, where digital HR tools are becoming more prevalent, how digital HR contributes to employee performance has become a key research question for academics and practitioners alike.

In the last decade, the banking sector in Pakistan has undergone immense digital transformation, with big financial institutions investing heavily in HR information systems and digital platforms (Iqbal et al., 2018; JS Bank, 2020). The commercial banks of Pakistan have gradually adopted the process of E-HRM to automate repetitive tasks of HR, cut down administrative costs, and allow HRDs to concentrate on strategic actions (Sohail et al., 2021). The study was carried out in 361 branches of a selected commercial bank in Pakistan, which showed that the practice of E-HRM has significantly improved organizational performance and operational E-HRM practice yielded substantial positive impact, similarly with the relational E-HRM and transformational E-HRM practices (Impact of E-Hrm Practices on Organizational Performance, 2020). In the same way, a qualitative study on the practices of E-HRM with managerial level staff in banking sector of Pakistan found that the following are the key areas which are directly affected by E-HRM in banking sector: recruitment, selection, training, opening of job position, mobile banking, fintech, motivation, communication task completion, and bank performance (Sohail et al., 2021). The results highlight the potential of digital HRM in the banking sector in Pakistan.

E-HRM can be understood by three different lenses: transactional, relational, and transformational (Lepak & Snell, 1998; Bondarouk & Ruel, 2009). Transactional E-HRM is the process of automating operational and administrative HR processes, such as HR data management, payroll management, attendance records, leave management, etc. (Parry, 2011; Ruel et al., 2004). These activities are aimed at the optimization of costs, efficiency and the adjustment of standard processes of routine HR functions (Bondarouk et al., 2016). Transformational E-HRM, on the other hand, focuses on strategic HR activities that contribute to the value of the organization, including knowledge management, strategic reorientation, talent management and organizational change (Parry, 2011; Ma & Ye, 2015). Transformational E-HRM intends to connect the workforce to strategic decisions taken by the organisation and be used to create competitive advantage by developing human capital (Ruel et al., 2004; Theres, 2023). Transformational E-HRM practices are shown to be strongly correlated to employee performance and service quality, as well as to be the important drivers of enhancing employee performance, in the framework of Resource Based View (E-HRM as Driver of Financial Firm's Service Quality, n.d.). Research also has found that the operational, relational and transformational e-hrm practices have significant effects on the quality of HR services and the productivity of employees (Linking e-hrm practices and organizational outcomes, 2017).

This link between HR digitalization and employee performance has been extensively studied in recent literature, and meta-analytical results have demonstrated that E-HRM has a positive effect on employee performance (E-HRM: A meta-analysis of the antecedents, consequences, and cross-national moderators, 2021). Based on the findings of a systematic literature review conducted on employee performance and E-HRM, the authors found that E-HRM positively

influences employee engagement, job satisfaction and productivity (Exploring the Impact of E-HRM on Employee Performance, 2024). The research results that have been generated in the field of digital HRM can be clearly summarized in a meta-analysis by Theres (2023), which clearly demonstrates that digital HRM is a successful venture that fulfills its performance objectives and should be continued and enhanced in the future. In Pakistani banking sector, Amir et al. (2024) studied the impact of digital HRM on the performance of employees, with the involvement of the mediating variables of employee trust and organizational identity, and concluded that there are positive significant relationships between digital HRM and employee performance. Further, Iqbal et al. (2018) found that HR service quality played a mediating role between E-HRM practices and managers' perception of labor productivity in Pakistani commercial banks and that both the E-HRM practices and the HR service quality are statistically significant between all variables. All these studies reinforce a positive impact of digital HRM for both employees and organizations.
Although there is a growing amount of literature on HR digitalization and employee performance, there are still several challenges regarding the relationship between the two in specific contextual settings, notably in developing countries and smaller cities (Bondarouk et al., 2016; Sohail et al., 2021). Research in emerging economies like Tanzania has shown that E-HRM has a positive impact on HR efficiency, indicating that E-HRM can be advantageous to the organizations in developing countries to attain their objectives (Effect of E-HRM on HR Efficiency in Private Commercial Banks of Tanzania, 2020). Likewise, in the Oman context, conceptual frameworks have been developed that connect the activities of eHRM – namely transactional, relational and transformational – with organizational performance (Implementing e-human resource management for improving organizational performance, 2020). Pham et al. (2026) examined the role of human resources in bank performance in the context of digital transformation in Vietnam, revealing that despite digital transformation, HR still plays an important role in bank performance. Yet there is no study specifically targeting the banking sector of Khairpur Mir's, Sindh, Pakistan which has a distinct socio-economic and emerging digital infrastructure.
The HR digitalization and employee performance analysis in the context of Khairpur Mir, a notable urban hub in Sindh province, is a unique approach. The banking sector in this area has been undergoing an evolutionary shift towards digitalization; however, there is little empirical evidence of how transactional and transformational E-HRM practices affect employee performance. The prevailing studies are mainly concentrated on the major metropolitan cities like Karachi, Lahore, and Islamabad, which has resulted in the lack of a critical study on smaller cities and emerging economic hubs (Iqbal et al., 2018; Sohail et al., 2021; Manzoor & Sohaib, 2022). Furthermore, the impact of transactional and transformational E-HRM on employee performance has not received thorough attention in the context of the banking sector in Pakistan, and most studies have focused on E-HRM as a single entity without considering each of its dimensions individually (Amir et al., 2024; Impact of E-Hrm Practices on Organizational Performance, 2020).
Hence, this research is designed to fill these gaps by exploring the effect of Human Resource Digitalization on Employee Performance in banking sector of Khairpur Mir's (Sindh) in Pakistan with respect to two independent variables: Transactional E-HRM and Transformational E-HRM. In the context of HR digitalization, this study aims to offer nuanced insights into the relationship between various types of EHRM practices and employee performance, by exploring the two dimensions of HR digitalization. The result of this study will be helpful in the body of literature and will give some practical implications to the bank management in Khairpur mir's and will also give some policy recommendations to the banking sector of Khairpur mir's in developing countries to improve the use of HR digitalization.

Research Objectives
To know the impact of Transactional E-HRM on Employees Performance.
To know the impact of Transformational E-HRM on Employees Performance.
Research Questions
What is the impact of Transactional E-HRM on Employees Performance?
What is the impact of Transformational E-HRM on Employees Performance?
Literature Review
Impact of Transactional E-HRM on Employees Performance
The first stage of human resource digitalization is transactional E-HRM, which involves automating basic HR processes and operations like payroll, attendance, leave administration, employee data management, and benefits administration (Lepak & Snell, 1998; Ruel et al., 2004). The activities are essentially driven by the goal of cost reduction, operational efficiency, and HR processes standardization (Bondaruk et al., 2016). There has been a significant amount of research that investigates the linkage between transactional E-HRM and employee performance, such as the impact of automated repetitive work on employee productivity and service provision. Research in this field indicates that transactional E-HRM practices are mainly related to employee performance gains because of efficiency and administrative burden reduction. While investigating the effect of E-HRM on employee performance, Nurlina et al. (2020) incorporated HR service quality as an intervening variable and discovered that the E-HRM has a significant impact on employee performance by improving HR service delivery accuracy and timeliness. The study, based on data from civil servants, showed that the effective digitization of transactional HR processes led to fewer administrative obstacles, so that employees could be more focused on their core tasks. In the Malaysian banking sector, Ismail et al. (2020) studied the employee satisfaction and performance with E-HRM systems, and found that E-HRM systems can be used to provide more effective human resource management, and are essential for banking industries. Their work revealed that transactional E-HRM activities, especially performance management and administrative processing activities, have a significant impact on employee satisfaction and the resulting performance.
Researchers (2021) conducted a comprehensive meta-analysis to integrate the research on the antecedents, consequences and moderators of E-HRM, and their findings showed that E-HRM has a positive relationship with three categories of organizational performance along with overall organizational performance. Importantly, the results of the meta-analysis showed that the extent to which E-HRM is a predictor of organizations' operational performance is significantly greater than its extent to predict relational and transformational performance. The finding has implications especially for transactional E-HRM, where the improvements in operational performance are more directly linked with the automation and streamlining of routine HR processes. The meta-analysis also revealed that this positive relationship between E-HRM and organizational effectiveness is stronger in countries with more advanced ICT developments and in countries with less quality human capital, indicating that transactional E-HRM can be a substitute for traditional HR function in situations with less capability human capital.
In developing economies, Nyathi and Kekwaletswe (2023) conducted a study on the use of E-HRM in developing economies, sampling 35 E-HRM system organizations. Their results indicated that the use of E-HRM has a positive impact on employee and organizational performance, even though it is still a fledgling application in African countries and that mediation of employee performance is a means to increase gains for the organization. The study highlighted that the use of E-HRM along with other human resource best practices, which positively affect individual performance, is likely to improve the gains of the HRM in the organization. The research has

important implications for transactional E-HRM in developing country context as digitization of basic HR functions can lead to huge productivity gains. Researchers (2024) reported that they conducted a systematic Literature Review on E-HRM and Employee performance and reported that the E-HRM showed positive impacts on employee performance especially on employee engagement, job satisfaction and employee productivity. The review highlighted the significant determinants of E-HRM effects such as organizational culture, attitudes and perceptions of employees and E-HRM system quality and usability, which are all important for transactional E-HRM implementation.

For the case of banking sector, Shettigar et al. (2023) studied the relationship between E-HRM functions, organizations' performance, employee performance and employee job satisfaction. Their study included 493 HRM (Human Resource Management) responses from HR managers in Indian telecom and banking companies, revealing that the E-HRM has a significant impact on employee performance, with a beta value of 0.581 relating to E-HRM to employee performance. The research revealed that E-HRM activities like transactional activities have a significant impact on improving employees' productivity and organizational results. A conceptual framework was developed for Oman context and it studied the relationships between E-HRM activities and organizational performance on the basis of transactional, relational, and transformational activities. The framework hypothesized that the outcomes of E-HRM are primarily related to efficiency, service delivery, and standardization, relational outcomes, and potential improvement in organizational image. The study highlighted that a well-designed E-HRM system could help achieve the balance between the personal objectives and organizational objectives of the employees.

Research on E-HRM in the Pakistani banking sector has provided valuable insights into the role of transactional E-HRM. Manzoor & Sohaib 2022 have performed a qualitative analysis of the E-HRM practices in the banking sector of Pakistan which showed that E-HRM directly affects recruitment, selection, training, job opening, mobile banking, fintech, motivation and communication task fulfillment, and performance of banking sector. They found that transactional EHRM roles—especially recruitment and selection decision making roles—have effect on employee performance outcomes. The study conducted on the relationship between E-HRM practices and organizational performance in the banking sector in Ampara district revealed that the practices of E-HRM have a positive correlation with organizational performance and significant impact on organizational performance among all the sectors in the banking sector, the impact of E-HRM practices on organizational performance was 80.1% in the banking sector. The results showed that the transactional E-HRM has a significant impact on performance improvement in banking institutions, which is a huge effect size.

Impact of Transformational E-HRM on Employees Performance

Transformational E-HRM is the strategic side of e-HRM, which includes activities that contribute value to the organization by enabling knowledge management, strategic re-orientation, talent management and organizational change facilitation (Parry, 2011; Ma & Ye, 2015). Transformational E-HRM is a more strategic approach than the transactional approach, as it seeks to match the workforce to strategic organizational decisions and to help generate competitive advantage by improving human capital development (Ruel et al., 2004; Theres, 2023). The link between transformational E-HRM and employee performance has been explored, and many studies have shown that it has a profound positive effect on workforce productivity and service quality.

The seminal study on the potential of transformational E-HRM as a driver for service quality in the financial sector within a Resource based view framework showed a high and significant correlation between transformational E-HRM, employee performance and service quality. The study used two different type of samples and respondents, first bank employees who were evaluated on E-HRM practices and employee performance, second, customers who were evaluated on the service quality levels, and 448 data from the respondents was analyzed by structural equation modelling. The results indicated that the E-HRM practices play an important role in improving the employees' performance which in turn can be considered as a source of empowerment and equipping employees. As a direct result of this increased performance, improved perceptions of service quality emerged as employees with more knowledge, skills and motivation provided improved service to customers. This study offers strong support for transformational E-HRM's emphasis on strategic human capital development, which is rewarded with significant performance dividends.

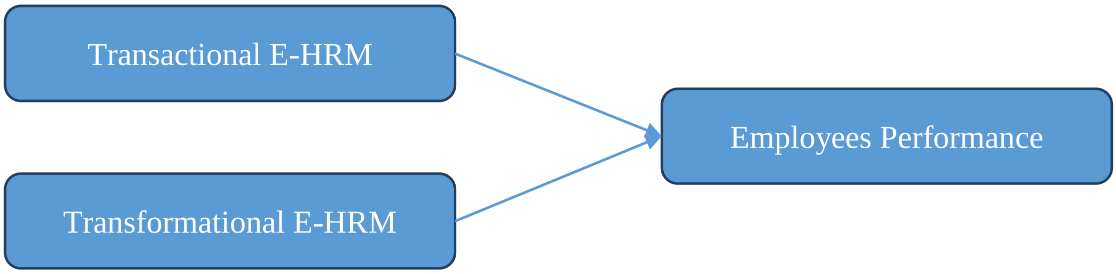
The study which investigated the relationship between organizational outcomes and operational, relational and transformational E-HRM practices in which HR service quality was taken as a value-creating factor of HRM, showed that transformational E-HRM practices have a significant effect on HR service quality and employee productivity. The study was based on the findings of a large and new survey to show that transformational E-HRM practices enhance the productivity of the employees in the commercial organizations' workplaces. The discovery is further testament to the significance of strategic E-HRM efforts in performance improvement – beyond efficiency gains via transactional automation. A comparative study was performed, which revealed that Informational E-HRM practicing organization performance was 73%, Interactional E-HRM practicing organization performance was 197%, and Transformational E-HRM practicing organization performance was 242% higher than those of organizations that have no E-HRM practices. The significant difference between these figures indicates the enhanced performance benefits of transformational E-HRM, demonstrating that those organizations that are using digital HR for strategic purposes are seeing much larger performance gains than those organizations that are only using digital HR for administrative purposes.

Theres (2023) have conducted a meta-analysis on the performance consequence of digital HRM, which resulted in comprehensive evidence of digital HRM as a successful attempt that achieved the desired performance results and should be continued and intensified in the future. The results of the metanalytic confirmed the view that transformational digital HRM initiatives have great results in terms of performance. The results of a systematic review of digital transformation of HRM and its impact on employee efficiency indicate the positive relationship between digital HRM and employee efficiency, which is explained by process automation, data-driven decision making, performance management and digital learning and development. The review, however, highlighted that this positive impact hinges on the congruence of the socio-technical aspects of technology design, work processes, leadership and employee digital skills. The present results indicate that transformational E-HRM's impact on employee performance is dependent on some other organizational variables.

It was hypothesized that a shift from an administrative orientation of HRIS to a strategic and high-value configuration of technology would create mechanisms, mediators, and strategic outcomes of the implementation of E-HRM. The review emphasized that moving from transactional to transformational E-HRM is an important shift in HRM practice, and that strategic E-HRM configurations lead to better performance results. Amir et al. (2024) conducted a study on the relationship between digital HRM and employee performance in the banking sector of Pakistan, with the mediation of employee trust and organizational identity, which found positive significant relationships between digital HRM and employee performance. The study showed

that transformational E-HRM practices have significant implications on employee trust and organizational identification which further impacts the performance of the employees.
The moderating effect of remote communication between the E-HRM practices and organizational performance was investigated in the Iraqi commercial banks, showing that the effect of E-HRM practices on the organizational performance is statistically significant. The study helped in understanding the relationship between transformational E-HRM practices and performance outcomes for the banking industry, specifically focused on communication and collaboration practices. The study which involved conducting a systematic review of the challenges and implications of implementation of E-HRM in the East African public sector analyzed the impact of strategic use of web-based HR technologies on organizations performance. The review highlighted the benefits of transformational E-HRM in improving strategic HRM functions leading to substantial performance gains.
It has been repeatedly shown in the Pakistani banking environment that transformational E-HRM is crucial. The study of Iqbal et al. (2018) revealed that HR service quality moderated the relationship between E-HRM practices and managers' perception of labor productivity in Pakistani commercial banks and E-HRM practices had a statistically significant positive effect on labor productivity. The study emphasized that the transformational E-HRM encompasses its influence on HR service quality that leads to an improved employee productivity. The impact of E-HRM practices on recruitment, selection, training, motivation, communication and bank performance was identified in the study by Sohail et al. (2021) and the transformational functions of E-HRM was found to have a significant influence on the outcomes of the HRM practices. Overall, these findings support the idea that transformational E-HRM is one of the most important means for improving employee performance in the banking sector of Pakistan and that strategic HR initiatives using digital technology tools have a significant impact on improving productivity and service quality.

Research Model



Research Hypothesis

There is positive and significant impact of Transactional E-HRM on Employees Performance.
There is positive and significant impact of Transformational E-HRM on Employees Performance.

Research Methodology

The present study consists quantitative research with a cross-sectional survey design to explore the effect of Human Resource Digitalization on Employee Performance in banking sector of Khairpur Mir's, Sindh, Pakistan. The cross-sectional design is suitable because Data is collected at one time only, and can be used to examine the relationship between Transactional E-HRM, Transformational E-HRM, and the Employee Performance (Creswell & Creswell, 2018).
The target population of Khairpur Mir's banking sector of the employees. The sampling method used in the study was simple random sampling where every employee has an equal chance of being included in the study and thus the results are generalizable (Sekaran & Bougie, 2016). This

study has 265 respondents, which is a suitable sample size for statistical analysis, and is above the minimum sample size required for regression analysis (Tabachnick & Fidell, 2019).
The information was gathered by using a structured questionnaire based on a Likert scale of 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire is a total of 15 items, 5 items for each of the three constructs Transactional E-HRM, Transformational E-HRM and Employee Performance. The instrument was modified from validated instruments for E-HRM studies to assure content validity.
SPSS version 27 was used for data analysis. To determine the internal consistency of the measurement scales, reliability analysis was carried out using Cronbach's Alpha. Pearson correlation was used to examine the direction and level of relationships between variables. Multiple regression analysis was used to test the hypothesized relationships and to see the effect of Transactional E-HRM and Transformational E-HRM on Employee Performance (Hair et al., 2019). Ethical aspects such as informed consent, confidentiality and anonymity of the respondents were adhered to.

Data Analysis

Reliability analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.893	15

As the value of Cronbach's Alpha was found to be 0.893, the overall internal consistency of the questionnaire items is excellent, which is higher than the commonly accepted value of 0.70 (Nunnally & Bernstein, 1994). This shows that all the items are consistent in measuring the same constructs of the underlying model of Transactional E-HRM, Transformational E-HRM, and Employee Performance which confirms the high reliability and appropriateness of the questionnaire to be used for further statistical analysis.

Correlation Analysis

Correlations				
		Transactional E-HRM	Transformational E-HRM	Employees Performance
Transactional E-HRM	Pearson Correlation	1	.863**	.967**
	Sig. (2-tailed)		.000	.000
	N	265	265	265
Transformational E-HRM	Pearson Correlation	.863**	1	.940**
	Sig. (2-tailed)	.000		.000
	N	265	265	265
Employees Performance	Pearson Correlation	.967**	.940**	1
	Sig. (2-tailed)	.000	.000	
	N	265	265	265
**. Correlation is significant at the 0.01 level (2-tailed).				

The correlation analysis shows very strong positive and statistically significant relationships between all the variables, the highest correlation found is between the Transactional E-HRM and the Employee Performance ($r = 0.967$; $p < 0.01$), followed by Transformational E-HRM and the Employee Performance ($r = 0.940$; $p < 0.01$). Both independent variables have high correlation ($r = 0.863$, $p < 0.01$), meaning that there is a strong association between the two independent variables, thus some preliminary support for the hypothesized relationships in the study.

Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.989[a]	.979	.979	.12637329

a. Predictors: (Constant), Transformational E-HRM, Transactional E-HRM

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	192.662	2	96.331	6031.909	.000[b]
	Residual	4.184	262	.016		
	Total	196.846	264			

a. Dependent Variable: Employees Performance

b. Predictors: (Constant), Transformational E-HRM, Transactional E-HRM

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.008	.008		.979	.329
	Transactional E-HRM	.619	.018	.614	34.390	.000
	Transformational E-HRM	.415	.018	.410	22.945	.000

a. Dependent Variable: Employees Performance

The model is a good fit and both the independent variables are together accounting for 97.9% of the variance in Employee Performance ($R^2 = 0.979$, $F = 6031.909$, $p < 0.001$). The correlations of Employee Performance with Transactional E-HRM and Transformational E-HRM are positive and strong, and statistically significant, with Transactional E-HRM showing a slightly stronger correlation ($\beta = 0.614$, $t = 34.390$, $p < 0.001$) and Transformational E-HRM ($\beta = 0.410$, $t = 22.945$, $p < 0.001$). The results are consistent with the previous results that both aspects of HR digitalization are found to be positively impacting employee performance in the banking arm of Khairpur Mir's.

Result Discussion

This study offers strong empirical evidence on the effect of Human Resource Digitalization on Employee Performance in the banking sector of Khairpur Mir's, Sindh Pakistan. The regression analysis showed that both Transactional E-HRM and Transformational E-HRM were significant positive predictors of Employee Performance with the model explaining an outstanding 97.9% variance ($R^2 = 0.979$) in the dependent variable. Such high level of explaining power highlights the importance of digital HR practices in the banking context and their impact on workforce productivity and effectiveness. The results demonstrate that Transactional E-HRM has a stronger influence on Employee Performance ($\beta = 0.614$, $t = 34.390$, $p < 0.001$) compared to Transformational E-HRM ($\beta = 0.410$, $t = 22.945$, $p < 0.001$). The discovery indicates that bank staff significantly benefit from automation and digitization of repetitive HR tasks like payroll, attendance, leave, etc. and employee data management. The high beta coefficient for Transactional E-HRM suggests that banking employees in Khairpur have significant gains from digitizing transactional processes in HR service delivery because of the benefits in terms of efficiency, less bureaucracy, and higher accuracy. The results are in agreement with that of Nurlina et al. (2020) which concludes that E-HRM has significant positive effect on employee performance by increasing the effectiveness of HR service delivery regarding accuracy and timeliness. In a similar way, Shettigar et al. (2023) found that the beta value of E-HRM to employee performance is 0.581 in the banking and telecommunication sectors of India, which is in line with the strong relationship found in this study. The significant and substantial effect of Transformational E-HRM on Employee Performance ($\beta = 0.410$, $p < 0.001$) shows that E-HRM initiatives that are strategic also have a significant contribution to improving employee performance. Transformational E-HRM practices such as knowledge management, talent development, strategic reorientation and organisational change facilitation help improve employee performance by providing the employees with better capabilities, skills and motivation. This finding corroborates the research conducted in the framework of Resource-Based View (RBV) which revealed that transformational E-HRM is important drivers for improving employee performance, as resources that can empower employee (E-HRM as Driver of Financial Firm's Service Quality, n.d.). The moderate beta coefficient for Transformational E-HRM is slightly lower than for Transactional E-HRM, but remains high, and, practically, significant, indicating that strategic digital HR initiatives have a strong and meaningful impact on the performance of transactional automation. The correlation analysis also supports these results, with the value of all the variables being very strong positive correlations. The correlation between Transactional E-HRM and Employee Performance ($r = 0.967$ $p < 0.01$) and between Transformational E-HRM and Employee Performance ($r = 0.940$ $p < 0.01$) show that both the dimensions of HR digitalisation are closely related with improving employee outcomes in the banking sector. The findings reveal a high level of correlation between the two independent variables ($r = 0.863$, $p < 0.01$), indicating that there is a complementary relationship between the two types of HRM, such that the digitization of routine HRM tasks is likely to enable the implementation of strategic HRM tasks. The excellent reliability and internal consistency of the measurement instrument is supported by the high Cronbach's Alpha value, which is 0.893. From the exceptionally high R^2 value of 0.979, it is clear that the two independent variables are almost the sole determinants of the dependent variable of Employee Performance of the banking sector of Khairpur Mirs, which means that HR digitalization plays a significant role in the determination of the dependent variable in banking industry of Khairpur Mirs. The discovery highlights the evolving nature of HR in new economic environments, and how digitized processes can significantly enhance productivity and organizational performance. The results are aligned with existing studies on HR Digitalization in developing countries and especially in Pakistani banking sector. Both transactional and transformational E-HRM practices are found to be important in improving employee performance; transactional E-HRM seems to have a stronger impact in the context of banking in Khairpur. This could be because smaller urban banks are at an earlier stage of digital maturity and automation of simple HR tasks provides more immediate and tangible performance benefits than strategic digital projects that are more complex and require advanced technological capabilities and capacities (Bondarouk et al., 2016; Sohail et al., 2021). The influence of Transformational E-HRM, however, implies that banks operating in Khairpur are also seeing benefits from strategic practices with digital HR, and this shows that they are moving towards the full implementation of comprehensive E-HRM. These have great implications for bank management in contexts such as Khairpur Mir. The immediate benefits of implementing strong transactional E-HRM systems to automate repetitive HR tasks are great, and banks must ensure they prioritize such systems. At the same time, it is necessary to promote the strategic investment of transformational E-HRM practices to enhance the human capital abilities and maintain competitive advantage in the long-term. The results also indicate that banks' practices need to guarantee that their efforts to implement transactional and transformational E-HRM systems are aligned and integrated to give the most impactful combined effect on staff performance.

Conclusion

This study was designed to investigate the effect of Human Resource Digitalization (HRD) on Employee Performance of banking sector in Khairpur Mir's, Sindh, Pakistan with focus on Transactional E-HRM and Transformational E-HRM as independent variables. The study adopted a quantitative cross sectional survey design which involved a sample of 265 bank employees and the data were analyzed using SPSS version 27, reliability test, correlation and multiple regression tests.

The results clearly show that both aspects of HR digitalization are positively and significantly related to the performance of the employees in the banking sector of Khairpur Mir's. The regression model was highly significant ($F = 6031.909$, $p < 0.001$) with over 97.9% of the variance in the Employees Performance explained ($R^2 = 0.979$). Transactional E-HRM emerged as the stronger predictor ($\beta = 0.614$, $t = 34.390$, $p < 0.001$), followed by Transformational E-HRM ($\beta = 0.410$, $t = 22.945$, $p < 0.001$). The results of this study support both the research hypotheses, indicating that both the digitization of routine HR functions and strategic HR activities in the digital field make a significant contribution to better workforce productivity in the banking context.

These results were further supported by the correlation analysis which showed very strong positive relationship between Transactional E-HRM and Employee Performance ($r = 0.967$, $p<0.01$) and Transformational E-HRM and Employee Performance ($r = 0.940$, $p<0.01$). This is because the measurement instrument used has high reliability (Cronbach's Alpha = 0.893).

This study has added significant value in the existing literature on HR digitalization in developing nations with a focus on the research gap in the realm of smaller cities in Pakistan. The study highlights the importance of HR digitalization as a tool for boosting employee performance in the banking industry, and confirms that it is not just about convenience, but a strategic priority. The study confirms the need for both transactional and transformational types of E-HRM in a broad context of HR digitalization; however, transactional E-HRM seems to have a more direct impact on performance in environments of nascent digital maturity.

Recommendations

Based on the results obtained from this study, following recommendations are suggested for bank management, policy makers and future researchers:

For Bank Management:

1. Focus on Transactional E-HRM Implementation: Banks operating in Khairpur Mir's can focus on implementing and improving their transactional E-HRM, such as automated payroll management systems, attendance tracking, leave management, and employee records management. These systems deliver immediate and significant performance improvements through reduced administrative complexity and the accuracy of delivering HR services.
2. Invest in Transformational E-HRM Practices: In addition to the immediate benefits of transactional E-HRM, banks should invest in transformational E-HRM practices like knowledge management systems, digital talent development platforms, and strategic performance management tools. These programs are designed to develop sustainable human capital capabilities and competitive advantage.
3. Ensure System Integration: Banks need to make sure that there is a seamless integration of transactional and transformational E-HRM system in order to ensure that the two

systems have the maximum impact on employee performance. An integrated approach allows data to flow efficiently and for a broad range of HR services to be delivered.
4. Offer Employee Training and Support: Regular employee training should be implemented at banks to improve their digital literacy and confidence in using E-HRM systems. This will ensure the most benefit from both transactional and transformational E-HRM practices.
5. Periodic System Evaluation: There should be regular assessment of the efficiency/effectiveness of the E-HRM systems based on feedback and performance indicators from the employees, which should aim at finding room for improvement and enhancing the digital HR systems continually.

For Policymakers:

1. Facilitate Digital HR Adoption: The regulatory authorities and policymakers should ensure and support implementation of a comprehensive E-HRM system in the banking sector especially in smaller urban areas like Khairpur Mir's.
2. Improve Digital Infrastructure: There is also a need to develop digital infrastructure, such as access to reliable internet and IT support services, that can help implement effective E-HRM.
3. Create Standards and Guidelines: Policy makers should create industry standards and guidelines for the implementation of EHRM to ensure consistency, quality and security in digital HR practices in banking sector.

For Future Researchers:

1. Future studies: Longitudinal studies are needed to understand the long-term effects of HR digitalization on worker performance and explore change over time.
2. Comparative Studies: Comparative studies between different cities, regions or banking institutions should be performed in order to know contextual differences in the impact of HR digitalization.
3. Mediating and Moderating Variables: Further research on mediating variables (employee trust, job satisfaction, and organizational commitment) and moderating variables (employee digital literacy, and organizational culture) should be conducted to understand the relationship more fully.
4. Qualitative Research: In-depth qualitative research such as interviews and case studies might yield more detailed information on the employees' experience and perceptions of HR digitalization.

Limitations

Although the present study offers important insights on the effect that HR digitalization has on employee performance, some limitations need to be recognized:

1. Cross-Sectional Design: This study used a cross-sectional survey design, which involves data collection at one time. This restricts the possibilities of establishing causal relationships and analyzing variations in employee performance over time after HR digitalization implementation. Longitudinal designs should be given consideration as a remedy for this.
2. Banking Sector Limitation: The study was limited to the banking sector of Khairpur Mir's in Sindh, Pakistan. The results might not be applicable to other cities, regions or sectors where socio-economic, digital infrastructure and organizational cultures vary. Multiple location studies are necessary to improve generalizability.
3. Self-Reported Data: The study was based on employee self-reported questionnaire information that could have socially desirable bias and common method variance. Staff could have exaggerated their achievements or given positive answers to the questions.

To triangulate findings, objective performance measures or supervisor ratings could be included in future research.

4. Limited Scope of Variables: The study only considered the independent variables Transactional E-HRM and Transformational E-HRM. Other E-HRM aspects including Relational E-HRM as well as other contextual factors were not explored. More variables should be included in future studies for a more complete understanding.
5. Focused Industry: The study was conducted on the banking sector alone. The results might not be transferable to other industries with specific operating characteristics and other employee demographics or technology uptake. Numerous studies of various industries are suggested.
6. Sample Size and Sampling Technique: The sample size of 265 is considered adequate but the simple random sampling technique might not have been able to cover all the relevant categories of employees in the banking sector. Stratified sampling may have yielded more representative results on different levels of the bank and staff.
7. Temporal limitations: The study took place at one-time and the fast-changing nature of digital technologies may influence the relevance of the findings over time. To monitor the changing dynamics between HR digitalisation and employee performance, replication studies are recommended.

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