

## PERSONAS: RESULTADOS DE INVESTIGACIÓN

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### Digital Human Resource at Work: how e-HRM Shapes Modern Organizational Performance

Recursos humanos digitales en el trabajo: cómo la gestión de recursos humanos electrónica influye en el rendimiento organizacional moderno

Recursos Humanos Digitais no Trabalho: como o e-HRM Molda o Desempenho Organizacional Moderno

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**Abstract:**

This research seeks the nexus and the interdependency of e-HRM (Electronic Human Resource Management), organizational ambidexterity, employee performance, and overall organizational success in major IT organizations located in twins cities i.e. Rawalpindi and Islamabad Pakistan. Data was collected by cross-sectional research design from 532 employees working in IT organizations. Obtained results show that use of Electronic Human Resource Management (e-HRM) has positively linked with Organizational ambidexterity that ultimately increased the employees as well as organizational performance. The research has the practical implications for the decision-makers and leadership a complete roadmap for the understanding of how e-HRM is incorporated into the vision of modern business distant technologies.

**Keywords:** Electronic Human Resource Management (e-HRM), Organizational Ambidexterity, Employee Performance, Organizational Performance.

**Resumo:**

Esta pesquisa busca compreender a relação e a interdependência entre o Gerenciamento Eletrônico de Recursos Humanos (e-HRM), a ambidestria organizacional, o desempenho dos funcionários e o sucesso organizacional geral em grandes empresas de TI localizadas nas cidades gêmeas de Rawalpindi e Islamabad, no Paquistão. Os dados foram coletados por meio de um estudo transversal com 532 funcionários de empresas de TI. Os resultados obtidos mostram que o uso do e-HRM está positivamente relacionado à ambidestria organizacional, o que, em última análise, aumentou o desempenho dos funcionários e da organização. A pesquisa oferece implicações práticas para tomadores de decisão e líderes, fornecendo um roteiro completo para a compreensão de como o e-HRM se integra à visão de negócios modernos e às tecnologias remotas.

**Palavras-chave:** Gestão Eletrônica de Recursos Humanos (e-HRM), Ambidestria Organizacional, Desempenho do Funcionário, Desempenho Organizacional.

## Resumen:

Esta investigación busca la conexión y la interdependencia entre la gestión electrónica de recursos humanos (e-HRM), la ambidextra organizacional, el rendimiento de los empleados y el éxito organizacional general en importantes organizaciones de TI ubicadas en las ciudades hermanadas de Rawalpindi e Islamabad, Pakistán. Se recopiló datos mediante un diseño de investigación transversal de 532 empleados de organizaciones de TI. Los resultados obtenidos muestran que el uso de la Gestión Electrónica de Recursos Humanos (e-HRM) se ha vinculado positivamente con la ambidextra organizacional, lo que, en última instancia, ha mejorado el rendimiento de los empleados y de la organización. La investigación ofrece implicaciones prácticas para los responsables de la toma de decisiones y los líderes, una hoja de ruta completa para comprender cómo la e-HRM se incorpora a la visión de las tecnologías empresariales modernas a distancia.

**Palabras clave:** Gestión electrónica de recursos humanos (e-HRM), ambidestreza organizacional, desempeño de los empleados, desempeño organizacional.

## 1. Introduction

The emergence of electronic Human Resource Management (e-HRM) is the digital transformation in which organizations view it as a tool of integrating technology to the HR functions. The rollout of e-HRM is built on the idea that technology can improve HR functions, employee outcomes, and organizational performance in general. The wide area of e-HRM includes both narrow topics such as payroll automation and broader topics like analytics for talent management (Donmez y Donmez, 2025). This position examines the links between e-HRM, organizational ambidexterity, employee productivity, and the outcome of the organizational system (Al-Faouri, Abu-Huson, Aljawarneh y Alqmool, 2024).

E-HRM boosts the overall productivity of the organization through the transfer of tasks from the employee to the e-HRM system. Thus frees up the employee from administrative duties, and allows faster and better decision-making at the strategic level (Sheikh, Mukherji, Sharma y Bahuguna, 2025). However, the connection between the deployment

of e-HRM and the corresponding effects on productivity is complicated and can be altered by such factor copresence as employee satisfaction and organizational ambidexterity (Iqbal, Ahmad, Raziq y Borini, 2019).

One of the definitions of the organizational ambidexterity, which is the ability to explore and exploit at the same time, is a central element of this complex picture. As per (Martins y Moreira, 2025) an ambidextrous organization is one that both adapts to the changing environment and at the same time, optimizes existing resources. It is essential for the successful introduction of e-HRM as the companies should balance the technological progress with the employees' engagement and productivity.

Employee performance, which is a multi-dimensional construct consisting of task performance, contextual performance, and innovation, defines both the goals and the outcomes of e-HRM adoption (Motowidlo, 2003). E-HRM seeks to improve employee performance by optimization of the processes, simplifying information retrieval, and increasing development and training opportunities. Job satisfaction, that is, employees' attitudes to their roles, has a notably high association with the perceived accessibility and usefulness of e-HRM systems (Khan, Gul y Ali Chaudhry, 2024).

The recent advancement of artificial intelligence (AI) and machine learning lending e-HRM with new vigor. AI systems are now capable of using employee data to gauge the risk of attrition, pinpoint training needs, and customize employee experiences. Such systems empower HR managers to take a proactive approach that enables them to solve any potential problems before they worsen. AI applications can utilize sentiment analysis to take an assessment of the workforce and assist firms to make corrective actions (Epebinu, Adepoju y Ajayi, 2024). These cases notably show the evolving role of e-HRM in a resilient and agile company. Besides, e-HRM makes the workplace more inclusive by providing data that help with the formulation of evidence-based diversity and inclusion policies (Samman y Obaidly, 2024).

The feature of advanced analytics includes the identification of underrepresented groups in general, measurement of progress towards diversity goals, and assessment of the effectiveness of inclusion activities (Sparkman, 2019). E-HRM technologies to maintain the normal process of business through the provision of performance management, employee engagement, and virtual onboarding (Carnevale y Hatak, 2020).

This quick digital transformation brings into focus the notion that the efficient e-HRM system still is the best navigational tool against future turbulence. In spite of all these developments, the real success in e-HRM implementation which the company requires is to deal with leadership and organizational culture. The technological adoption process needs the leadership's endorsement as well as a laid out vision besides the ones that employees are needing to overcome. Furthermore, infrastructural training and the development of the personnel are pivotal to equip them with the necessary knowledge to fully capitalize on e-HRM (Iqbal, Ahmad, Raziq y Borini, 2019).

These variables epitomize the multifaceted nature of e-HRM implementation, and its dependency on strategic alignment throughout organizational levels. This research extends the current knowledge by hypothesizing impacts of e-HRM on organizational performance by mediation of organizational ambidexterity and employee performance.

## 2. Literature Review

### 2.1. e-HRM, Organizational ambidexterity, employee performance and organizational performance

The electronic human resource management (e-HRM) model is a technique through which technology supports strategic objectives and processes HR functions deeply in businesses i.e. to e-HRM. Donmez and Donmez (2025) categorized e-HRM into three classifications: relational, transformational, and operational. Every category represents a diversified side of HR management. Changing relational e-HRM to an employee engagement tool, like e-recruitment systems (Strohmeier y Kabst, 2009). While payroll

processing is operational e-HRM, which means that automating repetitive tasks is the main focus.

Transformational e-HRM is the one that leads to the integration of the HR processes with overall organizational strategies thus; it becomes possible to make data-driven decisions that are aligned with long-term objective. All these components are the womb of HRs to actively strategic to their company (Parry y Tyson, 2013; Ruël y Van der Kaap, 2012). E-HRM releases the time and resources of HR departments to focus on value-adding projects as it reduces the amount of administrative work (Al-Faouri, Abu-Huson, Aljawarneh y Alqmoool, 2024). Even if the effectiveness of the technology varies the cultural issues, the rate of technology adoption, and the level of e-HRM sophistication are key factors (Iqbal, Ahmad, Raziq y Borini, 2019).

The key to leveraging the benefits of e-HRM is the organizational ambidexterity, or the ability to operate between exploring and exploiting activities. Raisch and Birkinshaw (2008) explained that businesses with ambidextrous employees are more prepared to accept new technologies while keeping their ability to perform. This equilibrium is significant in the process of e-HRM since companies need to manage change while not interfering with the critical processes. The ambidextrous approach enables technology assimilation in a favorable environment, which leads to better results for the organization and staff (Wahyudi y Park, 2014) previously, Motowidlo (2003) claimed that e-HRM is the process that augments performance through the automation of procedures, the improvement of information accessibility, and offering opportunities for ongoing learning. Work satisfaction, which is the prism of employees' attitudes and perceptions, is also increased through e-HRM when they are user-friendly and meet employees' expectations.

In additions, Epebinu, Adepoju and Ajayi (2024) realized that through the well-designed e- HRM system not only autonomy was promoted but also monotony was decreased, leading to the increase of satisfaction levels. Yet, there are obstructions in the full adoption of e-HRM. According to Strohmeier and Kabst (2009), the major obstacles include the

resistance to change, lack of talents, and technological barriers. Staff members of old ages or those with very low IT skills have been confronted with challenges in the system implementation process, thus ending up a disgruntled. Besides that, some environmental issues like the size of the organization and the type of industry have their shares in the effectiveness of the e-HRM process.

For instance, the study of Iqbal, Ahmad, Raziq y Borini (2019) revealed that larger companies with well-defined HR policies are likelier than smaller firms to reap the rewards of improved efficiency by using e-HRM. These barriers can be addressed with the leaders' commitment, continuous training and proper strategic alignment Vo (2025) proposed the idea of a visionary leader who can persuade people to avoid resistance and cultivate innovation as a primary factor. The staff training that focuses on e-HRM systems is tailored to the differences that exist among the employees. All participants are ensured of the inputs that are needed for the e-HRM system to perform to their full potential (Iqbal, Ahmad, Raziq y Borini, 2019). Such actions are a proof of the necessity for a total approach to e-HRM implementation.

## **2.2. e-HRM has a direct positive impact on organizational performance**

Most of the empirical studies have shown a strong e-HRM and organizational performance association. e-HRM unique features such as the automation of commonly performed HR tasks cut costs and improve efficiency (Samman y Obaidly, 2024). Besides, the company allocates more resources to the technologies that are needed to bring about competitive advantages in the long run through the use of e-HRM (Sheikh, Mukherji, Sharma y Bahuguna, 2025). In addition to that, the integration of AI tools in the decision-making process can reinforce the effect by offering managers the needed information that leads to the organization`s success (Marler y Fisher, 2013).

### **2.3. e-HRM is positively correlated with organizational ambidexterity and employee performance**

The agility and adaptability of e-HRM enable it to be the mainstay of organizing ambidexterity. Firms that manage both exploration and exploitation of the resources successfully are in a better place to implement the e-HRM systems (Raisch y Birkinshaw, 2008). Wahyudi and Park (2014) have observed that e-HRM promotes ambidexterity by providing fast processes and giving employees rooms to do innovative tasks. Directly, e-HRM systems bring along employee effectiveness by means of tools and resources that are needed for task accomplishment and skill learning (Donmez y Donmez, 2025).

### **2.4. Organizational ambidexterity positively influences employee performance**

Employee performance is mainly affected by organizational ambidexterity which in turn is due to the fact of creating a more dynamic working environment. Ambidextrous organizations are those that allow people to create new products and services while still having a strong emphasis on the daily running of the organization by permitting both exploration and exploitation (Martins y Moreira, 2025). Javaid, Khan, Anjum and Batool (2025) remarked that those offices not only have a positive effect on performance but also increase employee autonomy and engagement. This two-faceted approach ensures that people can give their important insights on the current challenge as well as on the long-term goals of the company.

### **2.5. Ambidexterity of the organization and employee performance serially mediate the relationship between e-HRM and business performance**

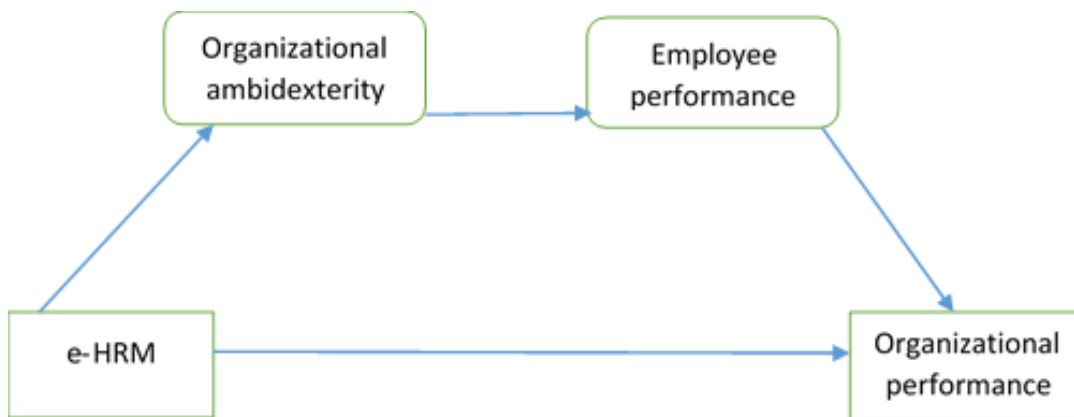
The serial mediation effect of organizational ambidexterity and employee performance illustrates the joining routes through which e-HRM affects organizational results. As it has been elaborated by Úbeda-García, Claver-Cortés, Marco-Lajara, Zaragoza-Sáez and García-Lillo (2018) ambidextrous organizations are faster and better at using technology in their everyday activities, which in turn improves the skills of the employees. Better



employee performance is a resultant effect of higher productivity, more innovations, and better adaptability and therefore it goes along with company success. The assumption is that these besides factors have a cumulative impact, hence the e-HRM is the facilitating agent of the entire organizational success.

The **Figure N°1** depicts the theoretical relationship between e-HRM and organizational performance and indirectly via organizational ambidexterity and employee performance.

**Figure N°1.** Theoretical Model.



Source: Own elaboration.

### 3. Methodology

#### 3.1. Research design with Procedure

The aim of this quantitative study is to identify the predictive power of e-HRM use on employee with organizational ambidexterity, employee performance and ultimately on organizational performance. A cross sectional research design was used for data collection with purposive sampling technique. Data was collected from 5 IT organizations major located in Rawalpindi and Islamabad, Pakistan. The inclusion criteria for selecting participating organizations for the (1) The organization should have a minimum of 110 employees, and (2) It should have implemented e-HRM system for at least three years, at the time of determining the sample size). Individuals of interest from these

organizations were all staff using the e-HRM systems: the HR professionals, line managers and IT specialists. Initially 580 questionnaires were distributed for recording the employees responses about use of e-HRM system in the organization, in which 540 questionnaire received. Eight questionnaires were not in proper filled. Finally 532 Reponses observed for data analysis.

Data were collected through a structured questionnaire. The language of this quantitative survey was English. The participants were educated and it was easy for them to understand the statements of the survey. Participants were ensured that data will be confidential and was being collected for pure research purpose and they subject of survey was explained.

### **3.2. Instruments**

Employee performance. Employee performance was examined by a 6-item job performance scale on the 5-point Likert scales anchored with strongly agree and strongly disagree adopted from (Goodman y Svyantek, 1999). The scale has total nine items and three dimensions: contextual performance, task performance and conscientiousness. We used six items of task performance. The items include: “Demonstrates expertise in all job-related tasks.

Organizational performance. A 9-item organizational performance scale was used. The items were originally developed by Parry and Tyson (2011), Bondarouk, Ruël and Looise (2011), and Panos and Bellou (2016). It is divided into three dimensions: operational, relational and transformational consequences. The items include: “Employees are saving on time spent doing routine tasks”. The construct of organizational performance is treated as a dependent variable in this study. It is anchored with “strongly satisfied” and “strongly dissatisfied”.

Currently, the most widely used measure of organizational ambidexterity is the five-point Likert-type scale by He and Wong (2004). The scale is mainly composed of eight items.

The first four items measure the company’s exploratory activities, and the last four items are related to the company’s exploitative activities. The present study has examined the responses from employees’ perspective about organizational innovative, cost effective and use of new technology approaches.

Finally, the 6-items about perception of e-HRM use instrument makes use of the 5-point Likert scales anchored with strongly agree and strongly disagree. It was developed from validated research instrument used by Wahyudi and Park (2014).

The instrument has two dimensions: perceived ease of use and system usefulness. In this study, the e-HRM is treated as an independent variable, implemented to bring forth a wide range of organizational process improvements. The items include: “The e-HRM systems are clear and understandable”.

### **3.3. Ethical Consideration**

Permission was taken from participants for the data collection. Informed consents were signed by participants before data collection. The purpose of the research was also explained to participants. The participants were also ensured that their privacy of information and the confidentiality of the data.

### **3.4. Demographic profile of respondents**

The demographic profile of respondents is shown in **Table N°1**. The females constitute the minority (45.11%), with males constituting (54.89%). In terms of age, 28.5 % of the respondents were in the 21–25 years age group are major respondents. On job experience, 35.4 % of the respondents had 1–5 years’ experience respondents are higher from others.

**Table N°1. Demographic Details.**

Employees Particular	Description	Numbers	Percentage
Gender	Female	240	45.11
	Male	292	54.89
Total		532	100
Academic Qualification	Intermediate	48	8.9
	Graduation	223	38.8
	Masters	185	34.7
	MS/ MPhil or Higher	76	17.6
Total		532	100
Age	21- 25 Years	188	28.5
	26-30 Years	112	22.2
	31-35 Years	92	16.9
	36-40 Years	38	8.7
	41-45 Years	50	11.6
	46-50 Years	27	6.3
	Above 50 Years	25	5.8
Total		532	100
Work Experience	Less than 1 Years	62	9.3
	1-5 Years	186	35.4
	6-10 Years	122	26.2
	11-15 Years	82	12.1
	16-20 Years	54	9.7
	Above 20 Years	26	6.03
Total		532	100

Source: Own elaboration.

## 4. Results

### 4.1. Statistical Techniques with Tool

Data analyses was done by using Smart-PLS software. It provides an accessible platform for developing, estimating, and evaluating complex models that involve latent constructs and their relationships. SmartPLS is a valuable source for investigators looking to explore causal relationships and prediction in fields such as social and management sciences.

We adopted partial least square-structure equation modelling techniques for examining the direct and indirect relationship between the variables. SmartPLS is a powerful tool for leading PLS-SEM analysis.

**Partial Least Squares Structural Equation Modeling (PLS-SEM)** is a statistical technique used for analyzing complex relationships between variables. It contains factor analysis and regression analysis to examine both measurement models (the relationships between observed and latent variables) and structural models (the relationships between latent variables). The present research included on a reflective model in which latent variable causes the indicators and lead to changes in the indicators.

#### 4.2. Assessment of Measurement Model

Analyses were done into two phases on Smart-PLS Software. First, path analyses were run by using PLS-Algorithm test for measurement of the model validity and reliability. This involves evaluating of outer loadings, validity and reliability of the constructs, discriminant validity and assessing of collinearity statistics. Items loadings  $>0.70$  is considered significant in the reflective model, indicating that the indicator explains a substantial portion of the variance in the latent variable. An indicator with a loading greater 0.70 recommends that it is a strong likeness of the latent construct. Secondly composite reliability that measures internal consistency of the constructs. A value above 0.70 is generally considered acceptable (Sharma, Liengard, Sarstedt, Hair y Ringle, 2023).

The next step is to examine the average variance extracted (AVE) which also one of step to assesses the convergent validity. AVE examines the amount of variance took by the indicators relative to the amount of variance due to measurement error. AVE values above 0.50 are usually recommended. Before going to the divergent validity, it is important to examine the collinearity statistics, which showed by variance inflated factors (VIF) values. VIF between 1 to 3 indicates that there is no issue of multicollinearity in the data. Values greater than 3 are considered problematic (Henseler, Ringle y Sarstedt, 2015).

The **Table N°2** presents the convergent validity, in which items loadings are in the significant level. The values of average variance extracted (AVE) are also above from 0.5 and composite reliability of the constructs are higher than 0.7 which establish the convergent reliability of the model. Moreover the VIF values rely between 1 to 3, indicating there is no issue of multicollinearity in the data.

**Table N°2. Construct Validity with Reliability.**

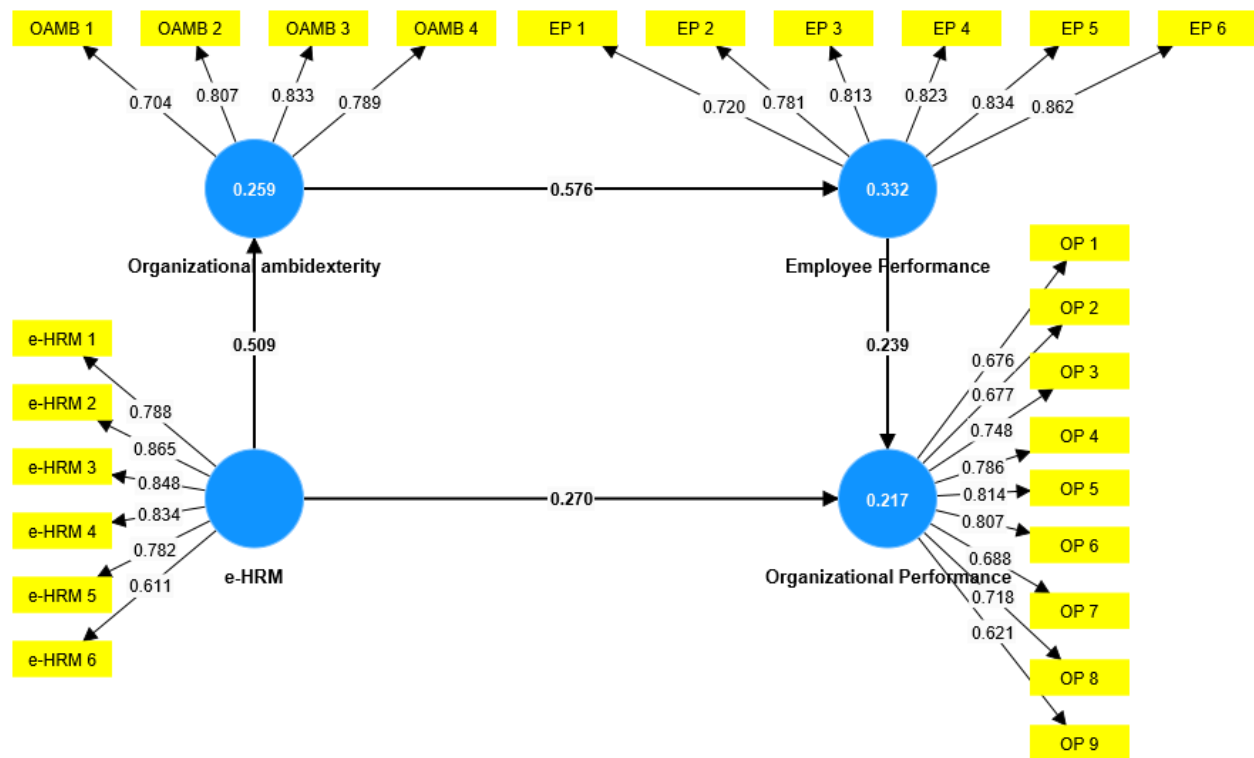
Constructs	Items	Items Loadings	VIF	C's alpha	CR	AVE
Employee Performance	EP 1	0.720	1.816	0.892	0.918	0.650
	EP 2	0.781	2.138			
	EP 3	0.813	2.366			
	EP 4	0.823	2.468			
	EP 5	0.834	2.962			
	EP 6	0.862	2.883			
Organizational ambidexterity	OAMB 1	0.704	1.476	0.792	0.865	0.616
	OAMB 2	0.807	1.775			
	OAMB 3	0.833	1.895			
	OAMB 4	0.789	1.571			
Organizational Performance	OP 1	0.676	1.993	0.888	0.910	0.531
	OP 2	0.677	1.957			
	OP 3	0.748	1.914			
	OP 4	0.786	2.159			
	OP 5	0.814	3.122			
	OP 6	0.807	3.064			
	OP 7	0.688	1.834			
	OP 8	0.718	1.990			
	OP 9	0.621	1.466			
e-HRM	e-HRM 1	0.788	1.878	0.878	0.909	0.628
	e-HRM 2	0.865	2.835			
	e-HRM 3	0.848	2.603			
	e-HRM 4	0.834	2.481			
	e-HRM 5	0.782	1.859			
	e-HRM 6	0.611	1.301			

CA= Cronbach's alpha, CR=Composite Reliability, AVE=Average variance extracted,  
DV=Discriminant validity, Fornell and Larcker 1981 criteria

Source: Own elaboration.

The path diagram (**Figure N°2**) describes the direct positive relationship between e-HRM and organizational performance and indirectly via organizational ambidexterity and employee performance.

**Figure N°2.** Path Diagram.



Source: Own elaboration.

The next phase is to establish the discriminant validity which ensures that latent constructs are distinct from each other. This may be assessed by two criteria, in which the square root of the AVE for each construct should be greater than the correlations with other constructs. Secondly, the HTMT ratio, where a threshold of values exist and range of the constructs present the distinct position of the variables (Fornell y Larcker, 1981; Sharma, Liengaard, Sarstedt, Hair y Ringle, 2023).

The **Table N°3** indicates that all diagonal values are higher than from related below values and HTMT values are also on significant level and establishes the discriminant validity of the constructs.

**Table N°3.** Discriminant validity.

Constructs	Fornell-Larcker criterion				HTMT			
	EP	OP	OAM	e-HRM	EP	OP	OAM	e-HRM
EP	0.806							
OP	0.421	0.729			0.469			
OAM	0.576	0.362	0.785		0.675	0.431		
e-HRM	0.675	0.431	0.509	0.793	0.760	0.491	0.601	

EP=Employee Performance, OP=Organizational Performance, OAM=Organizational ambidexterity, HTMT=Heterotrait-monotrait ratio

Source: Own elaboration.

### 4.3 Assessment of Structural Model

Hypothetical relationship of the constructs are tested by running bootstrapping test on Smart-PLS on 5000 resamples. The structural relations, effect size and predictive relevancy of the variables are tested in this phase. In Partial Least Squares Structural Equation Modeling (PLS-SEM), two important measures used to assess the quality and predictive relevance of the model are **R<sup>2</sup>** (R-squared) and **Q<sup>2</sup>** (Predictive Relevance). Both of these metrics provide understandings into how well the model fits the data and how well it can predict new data.

**R<sup>2</sup>** measures the amount of variance in an endogenous latent variable that is explained by the exogenous latent variables. It presents the goodness-of-fit measure that reflects how well the model fits the data. A thresholds for R square considered weak if fall values,  $R^2 < 0.25$ , moderate:  $0.25 \leq R^2 < 0.50$  and Substantial if values of  $R^2 \geq 0.50$ . table 4 explains that values of R square rely between 0.5 to 0.4 which presents weak and moderate effect between the variables. The next step is to measure of predictive relevance of endogenous variables. It is calculated using the blindfolding procedure by the Smart-PLS and values of q square, which measure of the predictive accuracy of the model. **Q<sup>2</sup> > 0**: The model has predictive relevance for the endogenous variable and



indicate that accurate predictions for that endogenous variable.  $Q^2 = 0$ : The model has no predictive relevance.  $Q^2 < 0$ : The model has poor predictive relevance (Hair, Hair, Hult, Ringle y Sarstedt, 2021). The **Table N°4** shows that values of q square are greater than 0 which indicate the predictive relevancy of the model.

**Table 4.** Predictive Relevancy.

Constructs	Q <sup>2</sup>	R-square
Employee Performance	0.212	0.332
Organizational Performance	0.110	0.257
Organizational ambidexterity	0.153	0.259

Source: Own elaboration.

The next step is to observe the effect size of independent variable on criterion variables. This is shown on **Table N°5** by f square test. Values of f square have small effect if  $f^2 \geq 0.02f^2$ , **Medium effect**:  $f^2 \geq 0.15$  and **Large effect** if  $f^2 \geq 0.35$ . The **Table N°5** shows the small to medium effect between the study variables.

**Table N°5.** Effect Size.

Constructs	f-square
Employee Performance -> Organizational Performance	0.040
Organizational ambidexterity -> Employee Performance	0.497
e-HRM -> Organizational Performance	0.251
e-HRM -> Organizational ambidexterity	0.350

Source: Own elaboration.

#### 4.4. Hypotheses Testing

The next important phase of the result analysis is to test of hypotheses and examine the direct and indirect relations between the variables. This consists the values of t and p and

beta values in the bootstrapping test. T-values above **1.96** (for a 5% significance level, corresponding to a p-value of less than 0.05) are considered statistically significant. Path coefficients and beta values show the strength and significance of relationships between latent variables.

The hypothesized relationships among the variables are presented in **Table N°6**. The impact of e-HRM on organizational performance is positive and meets the H1, ( $\beta = 0.268$ ;  $t = 3.804$ ,  $p < 0.042$ ), the relation between e-HRM and Organizational ambidexterity has also positive value ( $\beta = 0.514$ ;  $t = 12.371$ ,  $p < 0.01$  and proves the H2 of the study. H3 established the positive relation of Organizational ambidexterity with Employee Performance ( $\beta = 0.580$ ;  $t = 13.685$ ,  $p < 0.01$ ). H4 explains the mediating role of Organizational ambidexterity and Employee Performance between the e-HRM and organizational performance by ( $\beta = 0.247$ ;  $t = 3.258$ ,  $p < 0.01$ ).

**Table N°6.** Hypotheses Testing.

Hypotheses	( $\beta$ )	T values	P values	Decision
H4: ehrm->OAM->EP->OP	0.247	3.258	0.001	Accepted
H3: Organizational ambidexterity -> Employee Performance	0.580	13.685	0.000	Accepted
H1: e-HRM -> Organizational Performance	0.268	3.804	0.000	Accepted
H2: e-HRM -> Organizational ambidexterity	0.514	12.371	0.000	Accepted

$t > 1.96$ ,  $p < 0.05$

Source: Own elaboration.

## 5. Discussion

The solutions provided by the research highlight the essential role of e-HRM in enhancing organizational performance through direct and indirect paths. Past studies substantiate that e-HRM enhances efficiency via the automation of everyday administrative tasks, provision of accurate and timely information, and strategic decision-making facilitation (Donmez y Donmez, 2025). Reducing administrative tasks leads to employees being able to work on strategic value-added tasks which support long-term corporate objectives. This

research acknowledges the path of organizational ambidexterity being the major mediator in the relationship of e-HRM and performance and this is the fundamental contribution of the study. Ambidexters or the balance between exploration (e.g., innovation) and exploitation (e.g., efficiency) are the firms that fully utilize the potential of e-HRM. Companies that are equipped with good ambidextrous resources can adequately respond to technological adjustments and continue to operate (Raisch y Birkinshaw, 2008). This idea is expounded even further by the authors Wahyudi and Park (2014) who mention the impact of ambidexterity on the creation of the milieu compatible with technological integration. Employee performance and work satisfaction were also identified as key mediators in the e-HRM-to-performance pathway. E-HRM systems that are friendly to the user and properly matched with employee tasks lead to higher productivity, innovation and engagement (Goodhue y Thompson, 1995). Moreover, e-HRM training, career development, and flexible work arrangements are the main functions that lead to a higher level of job satisfaction, which results in retention and loyalty (Khan, Gul y Ali Chaudhry).

The above-mentioned results are particularly important in the context of the changing landscape of workplace expectations, where employees are more inclined towards technology that helps them instead of complicating their work. On the contrary, the report found out that there are hurdles in e-HRM improvement. Those employees who are less capable of using modern technologies are opposed to the changes taking place (Al-Faouri, Abu-Huson, Aljawarneh y Alqmool, 2024). Furthermore, the small-sized companies that suffer from a lack of resources find it difficult to adopt new advanced e-HRM systems (Iqbal, Ahmad, Raziq y Borini, 2019). Combatting these stumbling blocks requires particular interventions such as leadership commitment, strategic alignment and tailored training programs (Vo, 2025). The results suggest that the situation surrounding the deployment of e-HRM greatly affects the results. Bigger companies with a strong infrastructure and HR are able to utilize e-HRM platforms more than smaller companies. Likewise, market forces and industry competition may determine the spread and efficiency of such systems. These observations shift the paradigm from a standardized, "one-size-fits-all," approach to e-HRM, to a model that takes into account the

organizational size, culture and technological maturity (Sheikh, Mukherji, Sharma y Bahuguna, 2025).

### **5.1. Theoretical and Practical Implications**

This study sheds light on the theory of e-HRM in various ways. To begin with, it expands the framework of the resource-based view (RBV) since it demonstrates e-HRM as a strategic resource that facilitates organizational performance. The integration of e-HRM with organizational ambidexterity and employee outcomes, therefore, forms a complete framework for understanding how e-HRM leads to competitive advantage (Barney, 1991). Second, this study supports the Task-Technology Fit (TTF) model that claims that technology is best utilized when it is congruent with the tasks it is designed to aid. The outcomes of the research emphasize that e-HRM systems are user-friendly while germane e-HRM systems are linked to job needs, which, in turn, facilitates the improvement of employee performance and satisfaction. This implies that one should not forget the design features when creating and implementing e-HRM technologies. Furthermore, this research also makes a contribution to the Job Characteristics Model (Hackman y Oldham, 1975) for it clarifies how e-HRM helps boost job satisfaction by increasing the degree of autonomy, feedback, and skill variety. These findings enrich the understanding of how digital technologies affect employee attitudes and behaviors.

### **5.2. Practical Implications**

The findings practically provide the most important recommendations for managers and policymakers which are both practical and reasonable. According to the study, the commitment of leadership is considered the most important factor for the proper application of e-HRM. The leaders must share a picture of e-HRM adoption that is clear-cut, work through the resistance, and create an atmosphere that is hazard-free and allows for constant innovation and learning (Vo, 2025). Training programs customized to every employee's specific requirements are instrumental in bridging the skill gaps. They should be designed to help workers acquire technical skills and see the benefits of using the e-

HRM system to enhance the work process. In a multi-generational workforce, training programs should be inclusive by considering different levels of technological understanding through the use of training techniques (Iqbal, Ahmad, Raziq y Borini, 2019). The findings draw attention to the fact that e-HRM can greatly enhance the diversity and inclusion in the workforce. Organizations can utilize analytics to track the diversity of their workforce, target specific groups that are underrepresented, and evaluate the effectiveness of the inclusion and diversity plans (Sparkman, 2019). AI solutions such as sentiment analysis and predictive analytics can be the cherry on top as they give real-time data on employee engagement and mood (Epebinu, Adepoju y Ajayi, 2024).

Finally, the research conduces the play of varying the e-HRM systems to the unique circumstances of the organizations implying their benefits. The smaller firms realize financial savings by taking on the smaller, more efficient installation of the central e-HRM system. Likewise, a company with a bigger size can be in a better position than its competitors by using the latest e-HRM technologies and even include ones that are AI-based. In addition, the digital transformation fund that policymakers can set up will help out small businesses.

### **5.3. Limitation with Recommendations**

However, this study offers a significant contribution the literature while also pointing to possible future. In the present study, cross-sectional design restricts the establishment of causality and hence calling for longitudinal studies to examine any chronic impacts of e-HRM on organizational performance. Secondly present study focusses on specific organizations and region i.e. twins cities Rawalpindi and Islamabad of Pakistan, future research could build on understanding potential variation in these findings across sectors of the firm and geographic locations. Lastly, Ideas for future studies can include exploring more mediating and moderating roles of organizational factors within the context of e-HRM and organizational performance.

## 6. Conclusion

Therefore, this study supports the argument that e-HRM practice has positive effect on organizational performance in IT sector Pakistan. In such a way, by providing the organization with the organizational ambidexterity at inclusion can promote employees' engagement and innovation, as well as increase the overall organizational performance. The implications of the findings are significant for the work motivations, leadership discovery for adopted practices, and come as a useful resource to researchers and practitioners that seek to enhance the effectiveness of e-HRM in engaging employees in today's work settings.

## References

- Al-Faouri, E. H., Abu-Huson, Y., Aljawarneh, N. M. y Alqmoal, T. J. (2024). The role of smart human resource management in the relationship between technology application and innovation performance. *Sustainability*, 16(11), 4747. <https://doi.org/10.3390/su16114747>.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99– 120. <https://doi.org/10.1177/014920639101700108>.
- Bondarouk, T., Ruël, H. y Looise, J. (Eds.). (2011). *Electronic HRM in theory and practice*. Emerald Group Publishing Limited. [https://doi.org/10.1108/S1877-6361\(2011\)8](https://doi.org/10.1108/S1877-6361(2011)8)
- Carnevale, J. B. y Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183–187. <https://doi.org/10.1016/j.jbusres.2020.05.037>.
- Donmez, D. y Donmez, M. (2025). Integrating digital skills in talent management: A comprehensive bibliometric analysis. *Human Systems Management*, 01672533251389721. <https://doi.org/10.1177/01672533251389721>.
- Epebinu, O. B., Adepoju, A. y Ajayi, M. (2024). Electronic Human Resource Management (e-HRM) and Organisational Performance. *International Journal of Management, Accounting & Economics*, 11(11). <https://doi.org/10.5281/zenodo.14030402>.
- Fornell, C. y Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>.

Iqbal, N., Ahmad, M., Raziq, M. M. y Borini, F. M. (2019). Linking e-hrm practices and organizational outcomes: empirical analysis of line manager's perception. *Revista Brasileira de Gestão de Negócios*, 21(01), 48-69. <https://doi.org/10.7819/rbgn.v21i1.3964>.

Goodman, S. A. y Svyantek, D. J. (1999). Person–organization fit and contextual performance: do shared values matter. *Journal of Vocational Behavior*, 55(2), pp. 254-275. <https://doi.org/10.1006/JVBE.1998.1682>.

Goodhue, D. L. y Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 19(2), 213–236. <https://doi.org/10.2307/249689>

Hackman, J. R. y Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60(2), 159–170. <https://doi.org/10.1037/h0076546>.

Hair, J., Jr, Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M. y Sarstedt, M. (2021). A primer on partial least squares structural equation modeling (PLS-SEM). Sage publication.

He, Z. L. y Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization science*, 15(4), 481-494. <https://doi.org/10.1287/orsc.1040.0078>.

Henseler, J., Ringle, C. M. y Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135 <https://doi.org/10.1007/s11747-014-0403-8>.

Javaid, Z. K., Khan, K., Anjum, A. R. y Batool, S. (2025). Nexus of government support, IT capabilities, organisational ambidexterity and performance in public sector organisations. *ESIC Market*, 56(2), e419-e419. <https://doi.org/10.7200/esicm.56.419>.

Khan, K., Gul, M. y Ali Chaudhry, H. (2024). Effect of Electronic Surveillance on Task Performance: Mediating Role of Digital Transformation Moderating Role of Perceived Organizational Support. *Journal of Information and Organizational Sciences*, 48(2), 405-418. <https://doi.org/10.31341/jios.48.2.11>.

Marler, J. H. y Fisher, S. L. (2013). An evidence-based review of e-HRM and strategic human resource management. *Human Resource Management Review*, 23(1), 18–36. <https://doi.org/10.1016/j.hrmr.2012.06.002>.

Martins, H. y Moreira, S. B. (2025). Human Capital at the Crossroads of Sustainability: Integrating Key Trends in HRM with the Sustainable Development Goals. In *Integrated Science to Achieve Sustainable Development Goals* (pp. 99-120). Cham: Springer Nature Switzerland.

Motowidlo, S. J. (2003). Job performance. In W. C. Borman, D. R. Ilgen, with R. J. Klimoski (Eds.), *Handbook of Psychology: Industrial and Organizational Psychology* (Vol. 12, pp. 39–53). Wiley.

Panos, S. y Bellou, V. (2016). Maximizing e-HRM outcomes: a moderated mediation path. *Management Decision*, 54(5), 1088-1109. <https://doi.org/10.1108/md-07-2015-0269>.

Parry, E. y Tyson, S. (2013). *Managing people in a contemporary context*. 1st Edition. London: Routledge. <https://doi.org/10.4324/9781315885872>.

Raisch, S. y Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management*, 34(3), 375–409. <https://doi.org/10.1177/0149206308316058>

Ruël, H. y Van der Kaap, H. (2012). E-HRM usage and value creation. Does a facilitating context matter?. *German Journal of Human Resource Management*, 26(3), 260-281. <https://doi.org/10.1177/239700221202600304>.

Samman, A. M. A. y Obaidly, A. A. A. A. (2024, January). AI-driven e-HRM strategies: transforming employee performance and organizational productivity. In *2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETISIS)* (pp. 23-29), Manama, Bahrain. Publisher: IEEE. <https://doi.org/10.1109/ICETISIS61505.2024.10459398>.

Sharma, P. N., Liengard, B. D., Sarstedt, M., Hair, J. F. y Ringle, C. M. (2023). Extraordinary claims require extraordinary evidence: A comment on “Recent Developments in PLS”. *Communications of the Association for Information Systems*, 52, 739-742. <https://aisel.aisnet.org/cais/vol52/iss1/49/>.

Sheikh, R., Mukherji, R. K., Sharma, R. y Bahuguna, P. C. (2025). Integrating E-HRM for Building Resilient and Adaptable Organizations in Pursuit of Sustainability. In *Green Futures: Navigating the Path to Environmental Resilience* (pp. 405-425). Singapore: Springer Nature Singapore.

Sparkman, T. E. (2019). Exploring the boundaries of diversity and inclusion in human resource development. *Human Resource Development Review*, 18(2), 173-195. <https://doi.org/10.1177/1534484319837030>.

Strohmeier, S. y Kabst, R. (2009). Organizational adoption of e-HRM in Europe: An empirical exploration of major adoption factors. *Journal of Managerial Psychology*, 24(6), 482–501. <https://doi.org/10.1108/02683940910974099>.

Úbeda-García, M., Claver-Cortés, E., Marco-Lajara, B., Zaragoza-Sáez, P. y García-Lillo, F. (2018). High performance work system and performance: Opening the black



box through the organizational ambidexterity and human resource flexibility. *Journal of Business Research*, 88, 397-406. <https://doi.org/10.1016/j.jbusres.2017.12.045>.

Vo, T. T. D. (2025). Should performance-oriented organisational culture or learning-oriented organisational model be encouraged to employees: a context of Vietnam. *Human Resource Development International*, 1-11. <https://doi.org/10.1080/13678868.2025.2595926>

Wahyudi, E. y Park, S. M. (2014). Unveiling the value creation process of electronic human resource management: An Indonesian Case. *Public Personnel Management*, 43(1), 83–117. <https://doi.org/10.1177/0091026013517555>.