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Mediating Role of Information and Communication Technology between e-HRM and Organizational Performance in Pakistan

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Abstract

Every year, businesses devote a substantial portion of their funds to purchase digital human resource management systems. The area is rapidly evolving, and a growing number of businesses are investing in e-HRM. The failure to embrace new technologies caused problems to textile sector to satisfy the operational demands of the industry. Quantitative approach is used to find the relationship between e-HRM, information communication technology (ICT) and organizational performance (OP) in textile industry of Pakistan. The study used a cluster sampling technique for data collection and SPSS and Smart-PLS software were used for data analysis. This study finds association between e-HRM and OP through ICT. It assists HR practitioners increasing their understanding of the essential role being played in achieving sustainably competitive advantage and company success by focusing on e-HRM activities. The key findings of this research emphasizes that e-HRM has an optimistic link with OP, which reduces costs and improves procedures so that quicker processes and functions may be performed. The study also provides theoretical and managerial implications.

Keywords: organizational performance, electronic human resource management, information and communication technology, ICT, textile sector.

1. Introduction

The world has shrunk into a little village as a result of technological advancement. Employee innovation and creativity contribute to the organization's profitability, which results in the retention of the Human Resource Management (HRM) department's institutions and creative capabilities. The growth of ICT over the last decade has altered social and economic norms, and it may also have an impact on how the textile industry is operated and controlled. Technical tools have been embraced by HRM as it transitions to increase efficiency. e-HRM arose to speed up HR operations and improve organizational effectiveness (Thathsara & Sutha, 2021). The goals of the textile industry have changed in the twenty-first century to complement the efficiency of e-HRM. The term e-HRM was used to refer to the HRM “transactions/practices” conducted via the Internet. The term "e-HRM" refers to the use of ICT to help two people as they collaborate to conduct HR-related tasks (Poisat & Mey, 2017). The textile industry has an extensive variety of production of goods, ranging from low-labour and low-tech skills for the process. HR processes and how much your customers are satisfied helped in measuring the organizational performance. In compliance with InvestGovernmentPakistan (2020) in Pakistan’s GDP, the part of the textile industry is 8.5%. In the long run, it must be higher than expected in the upcoming years. Pakistan is the 4th largest producer of cotton and the 3rd largest consumer.

E-HRM provides an opportunity to become a more viable and strategic function by standardizing the majority of the textile industry HR processes, enlightening the quality and swiftness of available information, and refining services to employees. The role of e-HRM is important for enhancing textile industry performance. The textile industry may take dominance of that technology in ensuring quality performance, development of improved working methods, and sustainable and competitive personnel policy (Iqbal, Ahmad, Raziq, & Borini, 2019). e-Recruitment, one of e-HRM practices, gives benefits to companies by minimizes the cost of hiring in Pakistan (HuaweiCareer, 2020). In Pakistan, there are limited studies conducted on e-HRM and organizational performance. However, researchers found that human capital development and occupational health & safety have a reliable impact on nonfinancial efficiency and employee efficiency. Besides, researchers documented that e-HRM practices have an important optimistic influence on organizational performance. Empirical evidence is lacking in listed firms using a quantitative research method in Pakistan.

1.1 Problem Statement

The development of ICT in the past decade has amended social and economic ways of sustenance and it may influence the way an industry is managed. Nevertheless, the advancement of e-HRM strategies and policies are challenged by different values, ethics, and practices. Conventionally, HRM practices were accomplished manually without the utilization of any innovation. With the utilization of software and internet in other operational areas in the industry, the HR department additionally wanted to exploit different software-based frameworks which utilized direct information by ignoring

innovation. As a consequence of the lack of training, information, and literature in the usage of e-HRM technology, the majority of the employees are habitual of the old HRM system. That is why the employees do not endorse the adoption of e-HRM technologies in the organizations. Regardless, it is quite feasible to overwhelm these problems by introducing ICT. Using ICT to deliver e-HRM has become an important strategy for industries who are seeking for competitive edge. ICT has a positive influence on e-HRM practices, and it directly improves industrial performance. Consequently, it creates a connection between employees and e-HRM practices.

1.2 Research Gap

Additionally, behavioural research has begun to focus significantly on e-HRM and organizational performance, but there is no consensus regarding the precise kind of link. Furthermore, there is insufficient knowledge regarding the precise nature of the connection between organizational performance and e-HRM in Pakistan. Thus, this study covers this research vacuum by examining e-HRM and organizational performance in Pakistan using ICT as mediator.

1.3 Significance of Study

This research addresses the impact of e-HRM on organizational performance with the mediating role of ICT in textile industry of Pakistan. Academically, the significance of the current study stems from the developing fact that use of internet is becoming an important component of organizations that needs to be considered which can be used effectively in HRM operation. Moreover, ICT is yet to be addressed with e-HRM and organizational performance of textile industry of Pakistan. Proceedings of the current study also indicates that ICT as mediator with e-HRM and OP is new notion in developing countries like Pakistan. Contextually, the current study aims to contribute to the selected area of research by giving a comprehensive view of correlation in e-HRM with ICT aspects and organizational performance in Pakistan's textile industry. This comprehensive view will help the decision makers, HR managers and other stakeholders to recognize and understand these factors and how they can be integrated in uplifting performance of employees and organizations.

2. Literature Review

2.1 Electronic Human Resource Management

In every organization, human resource department is of utmost importance. e-HRM process is widely employed in noteworthy organizations. e-HRM is very capable, economical, consistent, and dedicated to the organizations. Nowadays, businesses are focusing on electronic human resources management, also known as e-HRM. Electronic HRM has a noteworthy link with organizational performance (Shaumya & Arulrajah, 2018). Organizations need to consider how human capital can support effective business plan execution as business innovation changes. e-HRM is characterized through Winarto (2018), as a result of the planning, execution, and data utilization, innovation is produced for systems, administration, and support for two individuals or groups participating in the

common performance of HR activities. It is important to not undervalue the many advantageous effects of e-HRM use within firms. It means that e-HRM is merely an innovation that requires various components to be successfully applied and adopted. Zafar, Randolph, and Martin (2017) assert that the e-HRM functions are:

2.1.1 e-Recruitment

e-Recruitment saves time by rapidly processing the duplication of candidates, simpler enrolment of qualified candidates improves the depiction of the possibility, gives hierarchical data between the options and the candidate for vacancies, and there is an extension of the geographical scope for candidates. Managers now rely heavily on the internet when looking for people to fill open positions (Poisat & Mey, 2017).

2.1.2 e-Training

Most of businesses now view web-based and online learning as a more effective method of training because it is available "whenever" and "anywhere," lowering direct costs (trainers, training facilities, printed materials), as well as unforeseen costs (travel time, housing, and travel costs). As a result of these crucial and quantifiable focal points, organizations start looking for the availability of core training online, and to monitor and measure the usage of the new capabilities of employees (Kwan et al., 2019).

2.1.3 e-Compensation

Organizations whether small or large should initiate process of equal compensation planning. Employers can award pay hikes fairly across the firm while adhering to spending guidelines by using compensation planning. While businesses have started expanding their boundaries, intranet and web usage has become essential (Daniel, 2018).

2.1.4 e-Performance Appraisal

The use of technologies to create policies and procedures under which an individual is judged and evaluated is referred to as e-performance appraisal. Organizations may benefit from e-performance appraisal systems, especially online systems, by standardizing HRM functions (Tutik & Nathasia, 2020).

2.1.5 e-Communication

Voicemail, email, mobile phones, and other e-communication systems make it easier to perform HR functions efficiently and effectively through computer systems or the internet. e-Communication provides staff with fast, reliable, and simple internet access (Al Haziazi, 2020). Organizations can use web-based knowledge-sharing services and web-based online recommendation schemes (Nurshabrina & Adrianti, 2020).

2.2 Information and Communication Technology (ICT)

Engineers of ICT are creating and developing a virtual world that contributes to the new administrations and new applications which help individuals both in their work and their

day-by-day activities. ICT is used synonymously with IT; nevertheless, ICT is signify a broader, more comprehensive itemize of integral components interrelated to computer and digital technologies than IT. ICT has become the new power in the contemporary economy wherein each business activity and each type of correspondence will be dealt through the changing structure of the ICT environment (Kwilinski et al., 2019). The goal of ICT is to improve employee life without unfavourably affecting their welfare or sense of satisfaction (El-dalabeeh, 2019). As a result, these effects must also be assessed over the full ICT lifecycle, taking into consideration the stages of creation and usage (Arora & Rahman, 2017).

2.3 Organizational Performance

One of the most contentious ideas about which different scientists and academics have never reached consensus is performance. Different actions are taken by organizations to implement their long-term and short-term goals. For a company to be productive, performance levels must be measured to determine the extent of performance and to enable managers to make judgments anywhere, if necessary (Marler and Fisher, 2013; Bethke-Langenegger et al., 2011; Roman et al., 2012). In this way, it might ensure that there is a useful connection between the organizational objectives and performance. Organizations endeavour to achieve certain pre-determined goals with the help of available resources. Consequently, the given concept has two aspects, i.e., the organizational target and the organizational resources, which can be considered in the definition of organizational performance (Barbini & Neri, 2017). Mostly, organizational performance is surveyed by the utilization of financial or non-financial measures. Prior studies showed the utilization of non-financial measures to assess the adequacy of organizational performance (Obeidat, Mitchell, & Bray, 2016). The core of management is organizational performance because there is no purpose for a firm to exist if it isn't moving in the direction of the determined goals and objectives. Organizations try to look into several options to maintain and improve organizational performance (Khalid, Islam, & Ahmed, 2019). Recently, a discussion about the industry has grown among experts, highlighting its potential to boost organizational performance across all geographies.

2.4 Hypothesis Development

2.4.1 e-HRM and Organizational Performance

An e-recruitment system is a backend infrastructure used to manage the e-recruitment procedure. It is developed so that applicants can submit their biodata / CV electronically (Obama, 2020). It can be used as a broad term for any recruitment operation including the use of Internet and several mobile devices (Daniel, 2018). In terms of time spent looking for applicants and the accuracy of responses, e-recruitment offers major advantages (Al Haziazi, 2020). e-HRM enables the HR department to add value for the company (Alateyah, 2018). Because of the rising prices of ads, companies are creating better websites for e-recruitment (Daniel, 2018). Unwanted costs, such as those related to excessive staff turnover, poor performance, and dissatisfied customers, would have been

reduced through e-recruitment (Thathsara & Sutha, 2021). It is assumed that e-recruitment has propensity of enhancing organizational performance. Based on the above discussion, the following hypothesis is developed:

- **H_{1a}:** e-Recruitment is positively associated with organizational performance**.**

e-Training equips users with training materials across a variety of platforms. These are the resources used by employees to learn about their employment (Brown & Charlier, 2013). HR should be given more autonomy and responsibility for their daily responsibilities, self-development, and job-related preparation in order to increase employees' interest in learning (Azizi, 2017). The majority of e-training research has been on identifying the factors that promote e-training adoption. Researchers in the past have examined the connection between individual training and organizational effectiveness (Aparicio, Bacao, & Oliveira, 2017; Kapo, Mujkic, Turulja, & Kovačević, 2020; Mohammadyari & Singh, 2015). So, the following hypothesis is developed.

- **H_{1b}:** e-Training is positively associated with organizational performance.

e-Compensation is the process of using online browser interfaces to plan, execute, and share information about pay and benefits. The use of e-compensation software allows HR practitioners and administrators to enhance their knowledge, which can improve the reliability of compensation schemes along with employee satisfaction (Stone & Dulebohn, 2013). Prior studies also confirmed that e-compensation helped the organization to improve its HR operations and organizational performance (Bondarouk & Ruël, 2009; Obama, 2020; Stone & Dulebohn, 2013; Strohmeier, 2007). Therefore, the following hypothesis is developed:

- **H_{1c}:** e-Compensation is positively associated with organizational performance.

e-Performance evaluation uses a number of measures and tools (Tarigan, Sutapa, & Mochtar, 2017). Supervisors and managers do employee evaluations based on their jobs and send the results to the HR department (Al Haziazi, 2020). As a result of the e-performance appraisal, management devoting less time and cost in performing performance evaluations (Ayers, 2015; Daoanis, 2012; Sabiu, Kura, Mei, Raihan Joarder, & Umrani, 2019). Managers can quickly determine each employee's dedication to the success of the organization because all business operations have been consolidated into a single structure. In light of this, the following hypothesis is created:

- **H_{1d}:** e-Performance Appraisal is positively associated with organizational performance.

e-Communication refers as employees communicate with their managers, supervisors, and heads using email and software. Information is shared within the organization with the help of e-communication system, It also enhances creative behaviour in the employee (Stich, Tarafdar, & Cooper, 2018). When an organization functioned in a different part of the

world, electronic communication is essential. It helps to bring together different departments and business units that are spread out geographically (Bansler & Havn, 2003). Additionally, it reduces the amount of time needed by the employee and department as both of them instantly acquired the information. As a result, the business uses the remaining time for other production tasks to boost performance (Crowston, 1994). As consequence, the following hypothesis is developed:

- **H_{1e}:** e-Communication is positively associated with organizational performance.

2.4.2 ICT as a Mediator

The creation of e-HRM functions requires a well-managed ICT infrastructure. The HR administration and ICT work together to measure operational accuracy. It boosts productivity while lowering time and cost, which enhances organizational performance (Elhazzam, 2015). Employees can focus on more important tasks because e-HRM relieves them of a lot of manual effort (Adam, Alhassan, & Afriyie, 2020). Ejemeyovwi, Osabuohien, and Osabohien (2018) show that the development in e-HRM functions and practices would boost innovation and create a competitive advantage. The procedure of *e-recruitment* and ICT use for employee recruitment ensure redundancy of the efforts (Apanasovich, Alcalde-Heras, & Parrilli, 2017). Application tracking system, Web 2.0 Artificial Intelligence (AI), and HR apps are examples of similar software used in the process. By posting job positions online, candidates can respond with their resumes (Girard & Fallery, 2011). The above discussion concluded the following hypothesis:

- **H_{2a}:** ICT mediates the relationship between e-recruitment and organizational performance.

By utilizing ICT resources, *e-training* is seen as a useful tool for both the trainer and the trainee. ICT lowers the time constraints, enabling organizations to execute more successfully. It also removes obstacles so that people can receive education wherever they are and whenever they choose (Abd ELhamid, Salama, Hassan, & Ayad, 2020). e-Training technologies also aid the human resource in capacity building. It is regarded as a useful procedure for planning and implementing future plans to enhance organizational performance (Zainab, Awais Bhatti, & Alshagawi, 2017). The above discussion concluded the following hypothesis:

- **H_{2b}:** ICT mediates the relationship between e-training and organizational performance.

e-Compensation is frequently viewed as one of the key variables that might influence an employee's performance, which therefore has an effect on organizational performance (Amudavi, 2018). Employees prefer to work for companies that can conveniently manage their pay and benefits systems. ICT apps assist in monitoring employee performance and providing compensation based on determined criteria (Muqaddim & Hosain, 2021). Employers discover that their employees stick with them longer and perform better when

they select the incentives and rewards electronically (Shah, Michael, & Chalu, 2020). The above discussion concluded the following hypothesis:

- **H_{2c}:** ICT mediates the relationship between e-compensation and organizational performance.

Throughout the year, the formal process of performance evaluation is continuing, and it is challenging to alter and judge whether employee evaluations are fair (Karanja, Sang, & Ndirangu, 2018). Unfair judgment may have a negative impact on employees' attitudes and productivity, which could harm an organization's performance. Employees can improve their performance by using ICT in performance appraisals by receiving detailed feedback about where they need to grow. These kinds of comments are necessary to boost an organization's performance at all levels (Saha & Majumder, 2017). The above discussion concluded the following hypothesis:

- **H_{2d}:** ICT mediates the relationship between e-performance appraisal and organizational performance.

It has been established that ICTs like the Internet, mobile phones, digital media, and others i.e., *e-communication* makes a significant contribution to the organization's HR policies. The HR department will severely be impacted by technological advancements (Roman et al., 2019). ICT implementation has improved efficiency, resulting in more competitive markets. Technology adoption has largely allowed organizations to achieve a competitive edge (Folayan et al., 2018). Organizations must be able to invest in ICT and incorporate it into their HR functions. The above discussion concluded the following hypothesis:

- **H_{2e}:** ICT mediates the relationship between e-communication and organizational performance.

Following framework shows all hypotheses including mediating relationships.

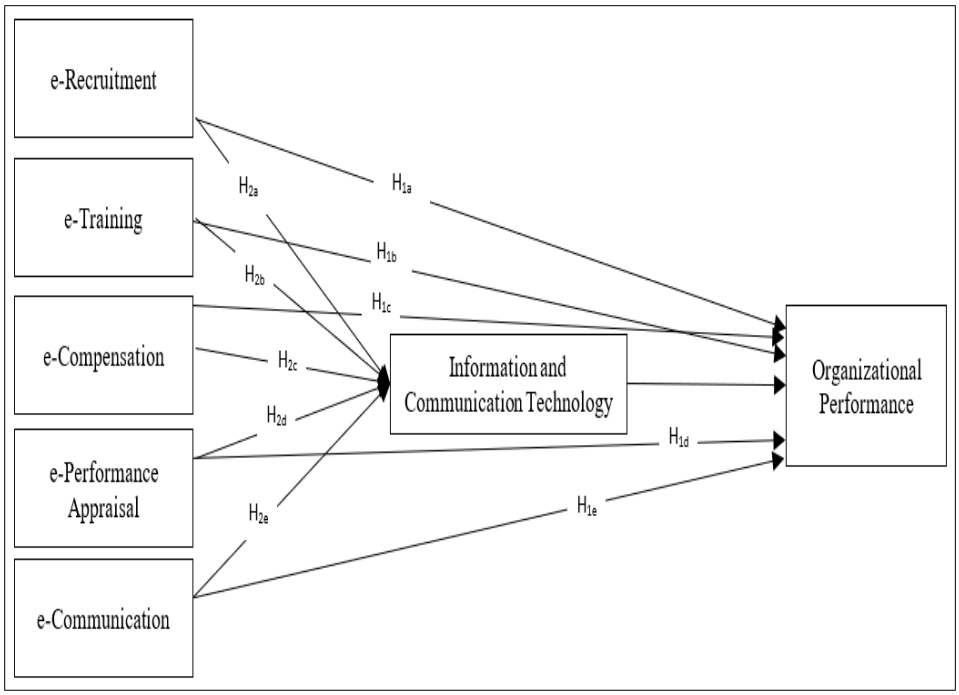

Figure 1: Hypothetical Research Framework

2.5 Theoretical Consideration

Barney (1991) proposed the RBV theory. This theory, instead of focusing on the dynamic marketplace climate to identify a market niche or obtain an edge over rivals and threats, the theory's key notion is that the organization should focus on the resource and opportunities it currently possesses. The RBV model's primary emphasis is on these tools, with proponents claiming that they should be prioritized in the implementation of organizational strategies (Barney, Ketchen & Wright, 2011). Resources help to create competitive advantage for the organization, but the competitive advantage can be survived in longer run if it is lacking to be replicated by rivals (Mweru & Maina, 2016). e-HRM practices such as e-recruiting, e-compensation, and e-training can be viewed as resources/tools that enable organizations to ensure this competitive advantage and engineer to gain the maximum outcomes.

3. Research Methodology

The quantitative approach was used in this study. Consequently, this approach is exploited to gauge the problem statement by initiating numerical data or facts and figures that can be rehabilitated into useful statistics.

3.1 Participants and Procedure

In conformity with Hayat, Hussain, and Lohano (2020) for a period of seven years, from 2009 to 2015, 128 textile companies were listed on the Pakistan Stock Exchange (PSX). Conferring to Krejcie and Morgan (1970) minimum sample size is 97 for the population of 130. To ensure a minimum of 97 respondents, a total number of 128 questionnaires were distributed by email. The targeted population included the major textile industrial cities of Pakistan. The two steps sampling was used in this study. Initially, the industries were identified from clusters by using a cluster sampling technique. Pakistan's major industrial cities include Karachi, Lahore, Faisalabad, Sialkot, Multan, Hyderabad, Quetta, and Peshawar. Karachi is the first hub of Pakistan's textile industrial cities and now Faisalabad is the second hub among the industrial cities of Pakistan. Subsequently choosing clusters, industries are selected by applying a simple random sampling technique. The survey had been conducted between May to mid of July 2021. E-survey was conducted for the collection of data and congregate from major textile industrial cities of Pakistan including Faisalabad, Lahore, and Karachi. An email of introduction and approval had been issued to the responsible authorities to describe the study's purpose and data gathered utilizing the self-administered survey techniques following their formal acceptance, then an e-survey link was sent via email to human resource departments. For an appropriate sample size, more than fifty emails were sent for the data collection. The participants therefore engaged in and answered the survey questionnaire. It took approximately 75 days to complete the distribution and collection of the surveys.

3.2 Measures

Question in this study were adapted from study of Adli et al. (2014) to discover the relevant aspects that e-HRM items for assessing research variables. Five areas of e-HRM practices were investigated – e-recruitment, e-training, e-compensation, e-performance appraisal, e-communication. A 15-items scale comprising of assertions about e-HRM practices is exploited to appraise the resilience of e-HRM practices as individual independent variable. Organizational performance and ICT items were adapted form Yunis et al. (2018) to study the overall performance and ICT position of the organization. Respondents were asked to evaluate their company's performance in comparison to that of its competitors. In this study, 7-items were used to measure the organizational performance and ICT respectively. The five-point Likert scale was employed in this investigation; 1 signifies strongly disagree and 5 indicates strongly agree. The respondent's level of agreement or disagreement was measured using a five-point Likert scale. The advantage of these questions is that they are simple to standardize, and the data collected from them offers itself to statistical analysis.

4. Data Analysis and Results

4.1 Descriptive Statistics

The socio-demographic characteristics of the population are depicted in Table 1.

Table 1: Demographic Characteristics of Participants

Profile	Category	% Age
Gender	Male	73%
	Females	27%
Education	Graduate	43%
	Under-Graduate	57%
City	Lahore	24%
	Karachi	20%
	Faisalabad	56%

The response rate was 77% (98 valid questionnaires). The demographic and societal status of the sample identified males of 73% and females of 27%. 43 percent of the participants finished their graduation with HR specialization and 57 percent obtained their master's degree or above.

4.2 Correlation Matrix

To evaluate the fitness of the model for confirmatory factor analysis, the Chi-square test and various fit indices were used. The chi-square goodness of fit value was 1040.804. The root mean square approximation error was 0.05. The Comparative Fit Index (CFI) was 0.94, which is higher than Bentler's suggested value (1990). The Normed Fit Index (NFI) was 0.91. The statistical results revealed that the models' overall fitness was adequate. The CFI and NFI were 0.702 and 0.615 respectively, which is between 0 to 1 as suggested by Bentler (1990). The statistical results revealed that the models' overall fitness was acceptable.

Table 2: Correlation Matrix

Variable	1	2	3	4	5	6	7
e-Recruitment	0.8						
e-Compensation	0.66**	0.81					
e-Training	0.64**	0.60**	0.82				
e-Communication	0.70**	0.59**	0.72**	0.86			
e-Performance Appraisal	0.63**	0.51**	0.66**	0.76**	0.91		
ICT	0.55**	0.71**	0.68**	0.72**	0.59**	0.76	
OP	0.57**	0.72**	0.64**	0.61**	0.55**	0.74**	0.8
Mean	3.63	3.77	3.8	3.71	3.65	3.63	3.77
S.D	0.79	0.85	0.83	0.89	1.02	0.8	0.75

Note: n = 98, Bold figures on the diagonal are the square roots of the AVE for constructs.
** shown that correlation is significant at the 0.01 level (2-tailed)

4.3 Measurement Model

The analysis of data involves a two-phase method (Anderson & Gerbing, 1988). Cronbach alphas and composite reliability were determined to assess reliability. In order to evaluate discrimination and convergent validity, Standard Factor Loading (SFL) and Average Variance Extracted (AVE) were evaluated. The corresponding Structural Equation Model (SEM) was run to check the link between the constructs after checking the measurement model. The statistical analysis was carried out on SmartPLS 3.0 and SPSS 25 software. CFA first predicted a measurement model. The corresponding measuring items loaded all latent constructs and permitted the correlation between them (Anderson & Gerbing, 1988). Alpha values for all components ranged from 0.71 to 0.91. Table 3 shows the alpha values of all constructs that meet the minimal criterion of 0.70. Composite reliability values range from 0.83 to 0.93, exceeding the normal value of 0.70. The tool is now trust worthy (reliable) for measuring latent constructs in this investigation. All items' standardized factor loadings varied from 0.71 to 0.82, which is significant at the 0.01 level of significance. However, there are two items with 0.69 that are acceptable. Overall, all of those values met the convergent validity criteria. All AVE values were in the range of 0.63 to 0.83, which was greater than the minimum requirement of 0.50, indicating that the highest variance is explicated with constructs (Fornell & Larcker, 1981). Values of AVE were compared with squared correlations between matched constructs to evaluate discriminant validity (see Table 3). In conclusion, the study instrument shows excellent validity and reliability for the function of latent construct.

Table 3: Confirmatory Factor Analysis

Items	SFL	α	AVE	C.R
e-recruitment		0.761	0.636	0.838
eR1	0.762			
eR2	0.696			
eR3	0.7			
eR4	0.69			
e-Compensation		0.828	0.653	0.883
eC1	0.703			
eC2	0.701			
eC3	0.7			
eC4	0.755			
e-Training		0.750	0.670	0.857
eT1	0.74			
eT2	0.69			
eT3	0.777			
eT4	0.815			
e-Communication		0.829	0.738	0.894
eC1	0.714			
eC2	0.751			
eC3	0.744			
e-Performance appraisal		0.792	0.833	0.909
ePA1	0.789			
ePA2	0.727			
ICT		0.885	0.583	0.911
ICT1	0.775			
ICT2	0.808			
ICT3	0.776			
ICT4	0.771			
ICT5	0.751			
ICT6	0.821			
ICT7	0.793			
Organizational Performance		0.912	0.638	0.930
OP1	0.857			
OP2	0.793			
OP3	0.705			
OP4	0.816			
OP5	0.874			

Overall Model fit: Chi Square (χ^2)=1040.804, χ^2/df =2.92, RMSEA = 0.141
CFI=0.702, NFI=0.615, p<0.0001

4.4 Structural Equation Model

The parameter estimates revealed that e-recruitment and OP, b=0.024, t=2.241 positively and significantly associated as shown in table 5. The parameter of e-training and OP are positively and significantly related with each other with a value of b=0.278, t=2.749. The values of b=0.470, t=4.763 shown positive and significant relation of e-compensation and OP. The positive and significant relationship of e-performance appraisal and OP are indicated by the values of b=0.045 and t=3.440. The interpretation of parameter of e-communication is highly affected on OP as b=0.078 and t=5.716. The parameter estimations indicated that e-HRM had a positive and substantial impact on OP. So that Hypothesis H_{1a}, H_{21b}, H_{1c}, H_{1d}, and $H1_e$ are accepted.

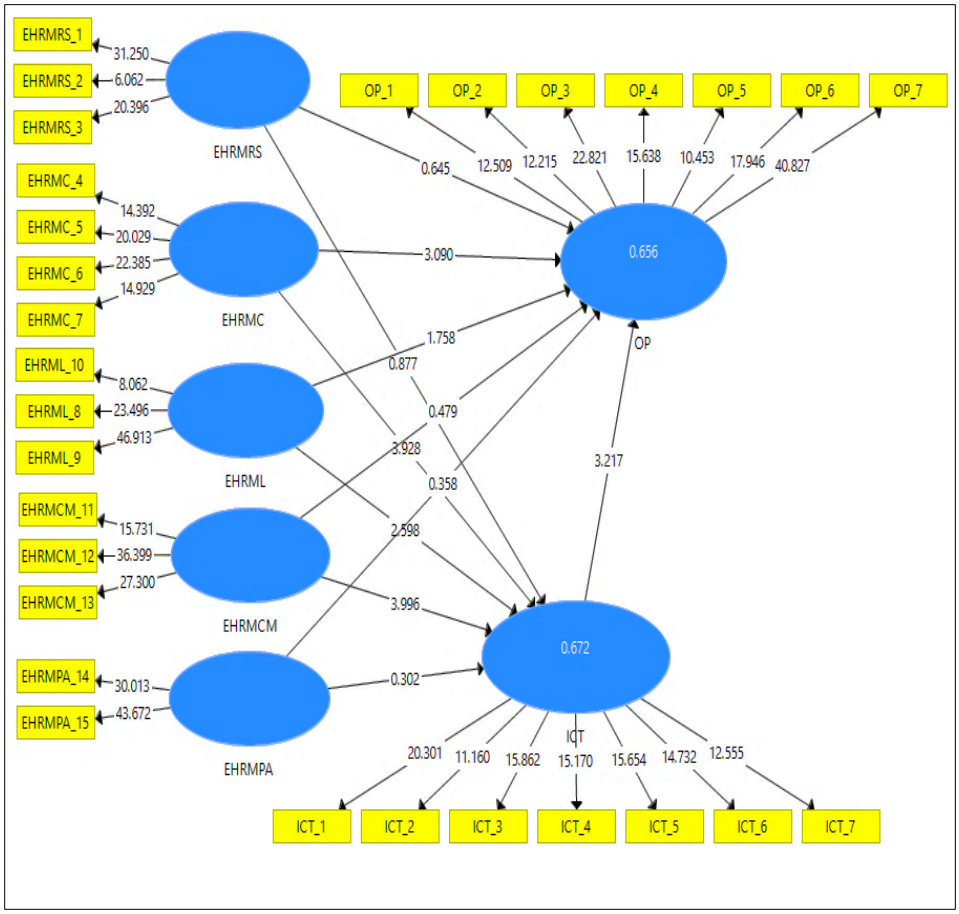

Figure 2: PLS Results of Proposed Model

Table 4: Model Estimation

Hypothesized Path	Path Coefficient	T Value
C → ICT	0.244	2.534
C → OP	0.47	4.763
CM → ICT	0.34	3.9
CM → OP	0.078	5.716
T → ICT	0.168	6.634
T → OP	0.278	2.749
PA → ICT	0.345	2.134
PA → OP	0.045	3.44
R → ICT	0.253	4.029
R → OP	0.024	2.241
ICT → OP	0.379	3.217

C=Compensation, CM= Communication, T = Training, PA= Performance Appraisal, R= Recruitment, ICT= Information Communication Technology, OP= Organizational Performance

To evaluate the direct impact of e-HRM practices on ICT and organizational performance, model estimate (Table 4) was executed using SmartPLS bootstrapping. Figure 2 shows that e-compensation significantly influence ICT and organizational performance (t=2.534, t=4.763) respectively. Meanwhile, e=communication also effects ICT (t=3.9) and organizational performance (t=5.716) as shows in figure 2. It also shows that e-training has direct relationship with ICT and organizational performance (t=6.634, t=2.749) respectively. e-Performance appraisal also effects ICT and organizational performance positively (t=2.134, t=3.44). It is also confirmed that e-recruitment has direct relationship with ICT and OP (t=4.029, t=2.241). On other hand, ICT has direct relationship with organizational performance (t=3.217). Hence, H_{1a}, H_{1b}, H_{1c}, H_{1d}, and H_{1e} are supported.

4.5 Mediating Role of ICT between E-HRM Functions and OP

Sobel test (Z) was used to scrutinize the mediating role of ICT between e-HRM function and OP. Through table 5, the influence of ICT had been shown. Z-value=2.166, p=0.015 evident that ICT had a significant mediating effect between e-HRM and OP. e-HRM function e-training value of z=3.200 and p=0.00 had a strong relationship with OP via the mediation of ICT. The value of z=2.113 and p=0.017 demonstrate that the mediation impact of ICT was positive and significant between e-compensation and OP. The e-HRM functions e-performance appraisal and e-communication had values of z=2.887 and p=0.014, z=2.733 and p=0.018 respectively, which depicts that ICT had a significant mediating effect. So that H_{2a}, H_{2b}, H_{2c}, H_{2d}, and H_{2e} are supported.

Table 5: Sobel Test

	Predictor	Mediator	Outcome	Z value	P value	Status
H_{2a}	e-Recruitment	ICT	OP	2.166**	0.015	Accepted
H_{2b}	e-Training	ICT	OP	3.200***	0	Accepted
H_{2c}	e-Compensation	ICT	OP	2.113**	0.017	Accepted
H_{2d}	e-Performance Appraisal	ICT	OP	2.887**	0.014	Accepted
H_{2e}	e-Communication	ICT	OP	2.733**	0.018	Accepted

*Note: Sobel test whether ICT mediates the relationships presented. *p<0.1; **p<0.05; ***p<0.01.*

5. Discussion

Pakistan is experiencing a fundamental transition as the country's economic prosperity is relying on a competent and educated population. Pakistan is now going forward with confidence in all industries that focus on human skills. Organizations all around the world have adapted to deploy e-HRM and start experiencing the transformative performance. An evidence-based approach might benefit e-HRM. As a multi-field developed by HRM, ICT, and organizational sciences, a gap has begun to form between what researchers study and what professionals need to know.

5.1 Implications of the Study

The study's main goal is to highlight the impact of e-HRM on organizational performance. The HR managers and higher management of the company receive a variety of recommendations from the study's realistic approach. First, businesses should invest in the e-HRM system due to its importance for enhancing organizational performance. Second, HR is important because of the growth of e-HRM, which is the foundation for all businesses in defining their roles and procedures. As a result, firms must develop and enhance their systems and use e-HRM to increase their cost-effective performance and complete HR duties quickly. Thirdly, by placing more emphasis on the strategic component of HR, e-HRM lessens the administrative burden on HR practitioners as they carry out their obligations. Fourthly, ICT contributes to the automation and simplification of activities, decreases administrative hurdles, and record-keeping, and, when necessary, offers HR information to management which helps in time and talent management.

5.2 Limitations & Future Research

This study will have a broader scope and potential in the future. For in-depth analysis, future studies can opt mixed method i.e. interviews of the participants and survey approach.

The study focused only on companies listed in PSX, future scholars take the sample size from SMEs of the textile industry. There are thirteen e-HRM practices of which five are discussed in this study, future researchers may take other practices for further study. Moreover, future research can also check the relationship of e-HRM and organizational sustainability with the mediation role of ICT. Data security can also be used as a moderator between e-HRM and ICT. The sample size in current study is taken from a developing country, scholars may focus on developed countries.

6. Conclusion

We can better understand what is known about the field of e-HRM and which areas need further research by using systematic research syntheses. From an organizational aspect, e-HRM hasn't gotten much attention in literature. Our research indicates that e-HRM positively affects organizational performance, which is consistent with the other researchers (Ahmed, 2019; Lazazzara et al., 2020; Roman, 2017). The findings of this study are also backed by the previous studies that investigated relationship between e-HRM practices and organizational performance (Nyathi and Kekwaletswe, 2022). This method significantly reduces the cost for businesses and HR systems. Empirical proof on e-HRM factors and their effects on organizational performance are confirmed.

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