Exploring the Role of Digital Human Resource Practices in Organizational Performance to Ensure Efficiency

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Abstract
This paper reviews the insights that how digital human resource practices can ensure the performance of employees in organizations and how it can increase overall efficiency. To do so, we develop a framework and consider three digital human ensure practices that are digital recruitment, selection, digital pay and compensation and lastly digital training and development. Before closing, future work is also to be considered for other digital human resource practices as well. More frameworks can also be formed.
Keywords: Digital training and development, digital pay and compensation, digital recruitment, selection

1. Introduction

In current scenario, the technological advancement has made revolutions in every aspect of business, thus digital transformation has become the buzzword for organizations to bring this change in their processes for improved performance with efficiency.

Following the trend HR practices are widely evolved from traditional to digital one. The spirit of digital transformation in human resource is applying technology in all fundamental practices of HR management which most importantly includes the process of hiring HR known as recruitment, their training and development process and the processes of rewarding and compensating them as best fit. Nowadays, organization cannot grow or cannot ensure the efficiency without the digital transformation. Digital HR is the automation of HR practices in accordance with technological transformation.

Digital HRM is considered as the way by which policies, practices and strategies are effectively implemented to achieve the efficiency. It is taken as example of umbrella, under which all HRM and IT related mechanism is interconnected. It eventually help organization to create value within the organization and also across the organization for targeted management of employees (Bondarouk and Roul, 2009; Hasan, 2023)

In digital HRM manual operations are replaced with modern technological tools like designed software and websites and gadgets to optimize the productivity, cut time and costs, and to improve organizational performance when managing the human capital. Researcher Nambisan in 2017 said that, digital technology is an extensive idea which is further divided into three related elements: first is digital artifacts like software and apps, second is digital platforms like operating systems such as Google's Androied or Apple's ios, and the last digital tools system which includes social media and data analytic.

We would agree with Theres & Strohmeir, 2023 that since long digital technologies and artificial intelligence have been component of HRM since the half of twentieth century. Martin & Reddington, 2010; Vrontis et al, 2011; Theres & Strohmeier, 2023 all agreed in their respective research that there are numerous possibilities that automate tasks like HRIS or salary distributed system to operational technology which is way more advanced technology is able to motivate employee behavior and make it easy and helpful for them in organizational decision making process. Organizations are undertaking transformation to digital human resource in an effort to improve organizational performance and grow with efficiency.

Therefore, using digital human resource advanced practices will help to improve organizational performance in order to achieve and sustain the competitive advantage with efficiency. Moreover, empirical research has proved that it digital hrm has both positive and negative impacts depending on the nature of organization and work environment of that organization. This paper will focus on heis in Sukkur region to get a lucid idea of digitalizing HRM impact on its performance as to lead with efficiency.

Considering the significance of digital HRM, a systematic literature review has been conducted to learn the impact of this digitalization in HRM on organizational performance.

1.1. Research Objectives
Objective 01: To explore the role of digital recruitment and selection in organizational performance to ensure efficiency.
Objective 02: To explore the role of digital training and developmentin organizational performance to ensure efficiency.
Objective 03: To explore the role of digital reward and compensation in organizational performance to ensure efficiency.

1.2. Research Questions
Research question 01: Is there any role of digital recruitment and selection in organizational performance to ensure efficiency?
Research question 02: Is there any role of digital training and development in organizational performance to ensure efficiency?
Research question 03: Is there any role of digital reward and compensation in organizational performance to ensure efficiency?

2. Literature review

Technology shared a great part in the development of digital HRM. in terms of business perspective these advancements are also accelerating the transformation in HR's major practices. From recruitment to compensation every step is assisted with these digital lead tools and apps. A recent study by Fedorova Et al shows that digitalizing hrm processes assist us to skip many routine tasks in order to curb the chance of human mistake, and also help us to tackle urgent problems with accuracy.

Digital HR helps employees to perform their routine job responsibilities and some administrative tasks like screeining during the hiring process or updating data of personal activities but it also facilitate to collaborate and communicate across the workforce with different cultural background for self-development needs (Manivannan and Mohan, 2014; Namadi, 2023). Evaluation in technology and mounting usage pattern of internet has also reformed the operating methods of organizations. Thus, organizations are collecting and refining data to make innovations in their businesses, products and services (Elia et al, 2020; Ustaoglu & Yildiz, 2023).

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In this paper, we are currently focusing on three crucial HR practices under the umbrella of digital HRM where recruitment and selection, second is training and development and third area is reward and compensation through digital HRM.

2.1. Digital Recruitment and selection

Strategically to attract the best pool of employees organization's recruitment process needs the technological support via digital channels like designed websites and software. The most important task for HRM in recruitment processes is to generate a pool of highly qualifies candidates that can best suit in company's requirement (Barber, 1998; Nudzor, 2023).

As we know little about the new challenges of recruitment process in alluring the workforce from reputable courted groups this digital age, the available literature is more focused on exploring the relationship between digital evaluation and requirement process rather than examine the efficacy of different resources and tool like referrals and job seeking websites. (Nikolaou, 2014; Sayvaya & Phommason, 2023; Van Hoye and Lieven, 2007).

Recent developments in recruitment and selection process shows that job applicants and organizations to hire them are rushing towards the internet. The common example is the use of social media platforms by organizations to attracting pool of competent workers. In last decade digital recruitment and selection has spread around the globe.

2.2. Digital training and development

Digital training and development is about the determining the updated and best ways of doing job. In digital HRM this includes the use of information technology for the sake of training and development of employees. It has the online methods of trainings, seminars, webinars, and use of blogs and vlogs for training sessions. The goal is always to help employees to learn new skills and develop for the future. Through various different ways digital technology has been affecting the professional lives of employees and HRM of organization (Parry & Strohmeier, 2014; Munir et al., 2024).

Digital training is new trend in the business world which is implemented in many different scenarios. Acknowledging this context, the m_csdt context was proposed in Ferreira et al., (2015); researcher said that Technology allows us to get training regardless the physical presence. Employees can be easily trained from anywhere of world by virtually present in online training sessions. Many more companies in world are welcoming and inducing this online training programs to get their workforce developed.

2.3. Reward and compensation

When it comes to HRM, its most critical aspect is managing compensation and reward. Compensation in HRM is about all monetary and non-monetary benefits organization provides to employees n exchange of their designed work. Digital rewards are virtual or online incentives that are given to individuals as a way of recognizing their achievements or as a motivation for them to perform certain actions. These rewards are often in the form of digital goods, such as badges, points, virtual currency, or access to exclusive content within the present HR scenario different organizations are making their efforts manage and maintain their reward and compensation with digital procedures. With technology making its way to change at every level, a technology driven rewards and recognition program can truly make a huge difference. This is the high time for all digital experts, and HR teams to push forward on this growth path the primary goal of organizational HRM is to retain the best fit employees and also to keep them motivated and committed towards the organization. However, there are some drawbacks which employees think of digital compensation system like it takes time to implement compensation planning, lower overall payroll costs (Dulebohn & Marler, 2005; Xiong, 2024).

To review the all kind of applications of information technology to execute HRM task, the field of digital HRM is wider than the e-HRM which is introduced and incorporated in last few years (Zavyalova et al., 2022; Theres & Strohmeier, 2023; Cizakca, 2024; Karim & Said, 2024). Researcher Strohmeier, 2020, laid focused that digital HRM is not only about digitalization but its work results hugely rely on some other crucial factors as well, such as industry type, human learning of technology or job skills.

The extent of literature discussed here based on the results of earlier researches that indicates that execution of digital HRM is important to enhanced the organizational output to remain in the race of competition.

3. Research model
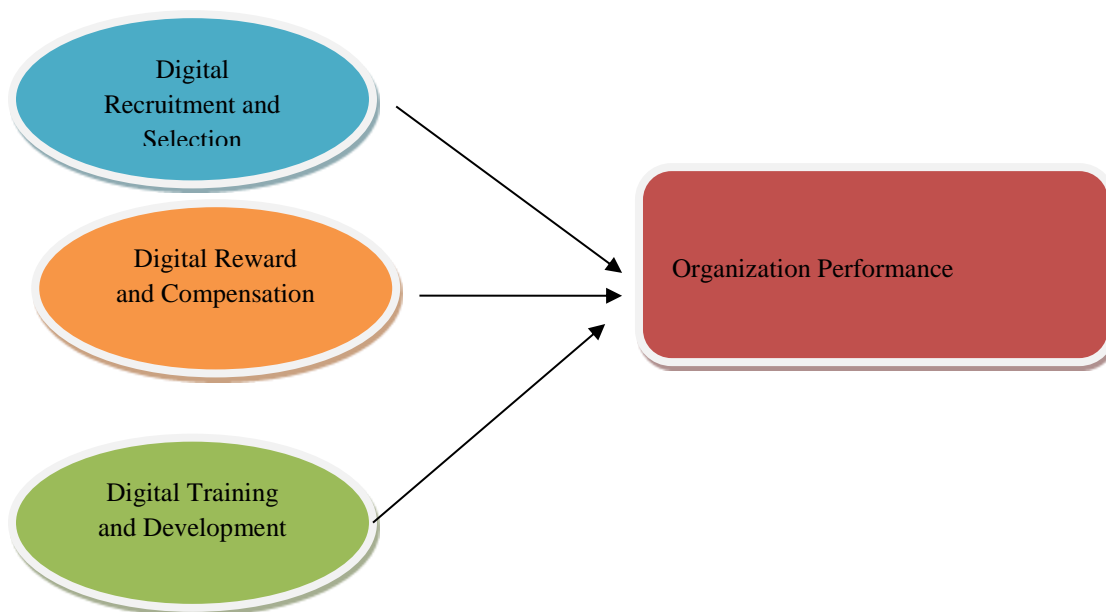
3.1. Research Hypothesis

Research hypothesis 01: There is a significant role of digital recruitment and selection in organizational performance to ensure efficiency.

Research hypothesis 02: There is a significant role of digital training and development in organizational performance to ensure efficiency.

Research hypothesis 3: There is a significantrole of digital reward and compensationin organizational performance to ensure efficiency.

4. Research Methodology

The methodology for determining the outcomes of emotional intelligence over the employee performance is covered in this chapter. The methodology chapter describes the chosen research strategy for this study and goes over all the data collection methods (population and sampling). Talk about the specifics of the device and measurement as well. Based on a positivist epistemology and a realist ontology, the quantitative data layer is represented as the topmost layer of the research onion. This means that researchers who employ this methodology assume that there is an objective reality that exists apart from them and that observation and measurement are useful tools for determining this reality. Important Premises for Quantitative Research. Observations, experiments, surveys, and other organized procedures are commonly used to gather quantitative data. Data Analysis: To examine the information and put theories to the test, statistical techniques are applied. Interpretation of the Data: The data are interpreted in light of the chosen theoretical perspective and the parameters of the research issue. Applicability in general. Researchers need to think about how applicable their results are to a wider audience.

The instrument of data collection is a questionnaire. Variable which tells about the gender, Age, Education, and Experience of the respondents it has 4 items, 2nd is an independent variable which has 4 items and it tells about digital recruitment and selection, 3rd variable is an independent variable it has 4 items and it tells about the digital training and development, 4th variable is also independent variable it tells about the digital reward and compensation and 5th variable is a dependent variable which tells about the organization performance and it has 4 items.

Data is collected from the private sector banks of khairpur Mir's

1. Habib Bank Limited
2. Bank Islamic
3. United Bank Limited
4. Habib Metro
5. M.C.B
6. Allied Bank Limited
7. Bank Al Falah

This research is collected from the commercial banks employees of khairpur especially from the employees of HBL, UBL, Habib Metro, Bank Islamic, MCB, ABL, Bank Al Falah, Askari Bank limited, Al habib bank limited and JS bank limited there are many employees are working in them and the research is conducted from 94 employees who are working in them to achieve the research objectives.

5. Results / Findings

5.1. Reliability

Table 1: Scale: ALL VARIABLES

Case Processing Summary		N	%
Cases	Valid	83	100.0
	Excluded[a]	0	.0
	Total	83	100.0
A. Listwise deletion based on all variables in the procedure.			

The data has been collected from 83 respondents.

Table 2

Reliability Statistics	
Cronbach's Alpha	N of Items
.836	30

Cronbach's Alpha the value of 0.836 represents the reliability coefficient. It measures how closely related the items are within a scale or test. A higher value indicates greater internal consistency. N of Items: This refers to the total number of items in your dataset, which in this case is 30.

Table 3: Correlations

Correlations

		A	B	C	D
A	Pearson Correlation	1	.064	.103	.255[*]
	Sig. (2-tailed)		.566	.353	.020
	N	83	83	83	83
B	Pearson Correlation	.064	1	-.091	.006
	Sig. (2-tailed)	.566		.414	.955
	N	83	83	83	83
C	Pearson Correlation	.103	-.091	1	.405[**]
	Sig. (2-tailed)	.353	.414		.000
	N	83	83	83	83
D	Pearson Correlation	.255[*]	.006	.405[**]	1
	Sig. (2-tailed)	.020	.955	.000	
	N	83	83	83	83

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Interpret the correlation matrix employee performance strong positive correlation with recruitment and selection (.490**).Strong positive correlation with pay and reward (.518**).Strong positive correlation with training and development (.490**).Very strong positive correlation with compensation and reward (.960**).

Table 4: Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	D, B, A[b]	.	Enter

A. Dependent Variable: C
B. All requested variables entered.

Table 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416[a]	.173	.142	.927

A. Predictors: (Constant), D, B, A

R: The multiple correlation coefficient ® indicates the strength and direction of the linear relationship between the predictors (independent variables) and the dependent variable.In this case, R is .927, which suggests a very strong positive relationship.
R Square: The coefficient of determination (R Square) represents the proportion of variance in the dependent variable (EP, Employee Performance) explained by the predictors.R Square is .926, indicating that approximately 92.7% of the variance in EP can be explained by the predictors.
Adjusted R Square: This accounts for the number of predictors and adjusts R Square for model complexity.Adjusted R Square is .927, which is slightly lower than R Square due to the inclusion of predictors.

Table 6

Anova[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.184	3	4.728	5.508	.002[b]
	Residual	67.816	79	.858		
	Total	82.000	82			

A. Dependent Variable: C
B. Predictors: (Constant), D, B, A

Regression: Sum of Squares: 14.184. Degrees of Freedom (DF): 3.Mean Square: 4.728. F-value: 5508. Significance (Sig.): <0.001
Residual:Sum of Squares: 67.816. Degrees of Freedom (DF): 79. Mean Square: 0.858
Total:Sum of Squares: 82.000. Degrees of Freedom (DF): 82
The predictors included in this model are the constant, digital recruitment and selection, digital training and development, pay and reward, and compensation and benefit. The low significance level (<0.001) suggests that the model is statistically significant in explaining the variance in the dependent variable (EP, Employee Performance).

Table 7

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	1.657E-17	.102		.000	1.000
	A	.006	.106	.006	.057	.955
	B	-.094	.103	-.094	-.914	.363
	D	.404	.106	.404	3.821	.000
A. Dependent Variable: C						

6. Conclusion

The implementation of digital human resource offers numerous benefits, and opportunities for the organization to grow stronger. Digital HRM has become key to success, organizations have change their HRM strategy for digital transformation in order to attain their goals and competitive advantage. The findings of this study provide a summary that how organizations can achieve the goal of improved performance with the effective use of digital HRM.

The benefits of implementing digital includes improved efficiency, in HR process, enhanced data accuracy, increased HR analytics capabilities and improved decision making based on real-time data. These benefits contribute to organizational performance and competitiveness in current digital era.

Digital HRM shares a pivotal role to balance the relationship between employer and employees, hence designing the strategic role of this digitalization in HR will facilitate to raise productivity in employees. This study highlights the enhancement in the HR practices like recruitment and selection, training and development, reward and compensation through technological advancements and availability of these tools and gadgets in organization. Outcome of this research article will act as significant aspect for researchers to make explore more in other factors which are essential part of human resource management.

Organizational should develop its digital strategy for improved productivity. Higher performance and incremental profits will be the ultimate goal for any organization. This digital transformation will lend a helping hand via human resource management to increase both performance and profits. Digital HRM empowers organization to leverage technology for optimizing their human resource practices and leading to success in this digital age.

6.1. Future work

The present work is limited to digital HRM with three areas of practices, whereas there are many more other important HR practices which need to explore in digital perspective. The impact and scope artificial intelligence (AI) should be investigated in terms of HR practices. Similar study can be performed in other sectors as well, like pharmaceutical companies or small medium sized enterprises (smes). Across the organization to delve in the business analytics must use the information from human resource information (HRIS) to draw further strategy. there is room to conduct research on E-learning in employees and their response towards to digital transformation in organization as this is widely spread in organizations.

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