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Digital Technology Adoption and its relationship with Human Resource Management Practices in Higher Education Institutions of Balochistan

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Abstract
This study aims to explore the adoption of digital technologies and its correlation with HRM practices in HEIs of Balochistan, Pakistan. The use of digital technology, in the modern context of academic life, has become more and more significant enhancing HR related processes, especially recruitment and selection, training and development. The study used a quantitative research design and the sample consisted of 400 respondents comprising of academic faculty and administrative staff of Sardar Bahadur Khan Women University (SBKWU), Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS) and the University of Balochistan (UoB). Data were collected by a structured questionnaire and analyzed with SPSS. The results showed that the level of the digital technology adoption of respondents was moderate. Digital recruitment was generally well received, especially in terms of speeding up the recruitment process, better candidate records management and the ability to ensure a fair candidate selection. Likewise, digital tools were identified to facilitate training and development including through professional development, job performance, and ongoing learning. The results of the correlation indicated that there were strong positive and statistically significant relationships between digital technology adoption and recruitment and selection, $r(398) = .680$, $p < .001$; digital technology adoption and training and development, $r(398) = .720$, $p < .001$; and between recruitment and selection and training and development, $r(398) = .700$, $p < .001$. The results suggest a strong positive relationship between the use of digital technology and the HRM practices in HEIs. The study suggests that there is a need to increase the institutional digital infrastructure, thus providing better access to digital HR platforms, as well as to conduct continuous training to increase digital tools efficiency in HRM processes.

Keywords: Digital Technology Adaptation: Human Resource Management, Recruitment and Selection, Training and Development and Higher Education.

Introduction

Digital technology is rapidly evolving and has changed the way organizations operate globally, especially in the higher education industry, where human resource management plays a crucial role in ensuring the institution's efficiency and performance (Rohayat, 2024). The digitization of the university has become a common practice in various areas such as administrative support, recruitment and selection, training and development, performance appraisal, compensation management, and employee record management (Khan et al., 2023). It has enhanced workflow automation, data precision, transparency, and decision-making efficiency in the developed context through the use of digital HR platforms, such as enterprise resource planning systems and cloud-based HRM applications. HRM integration of digital technologies, then, offers

opportunities to enhance the administrative responsiveness and strengthen the HR-related services of the institutions (Khan et al., 2023; Rohayat, 2024).

Digital HRM practices in HEIs have been slowly introduced in the South Asian scenario, with countries like India, Bangladesh and Sri Lanka beginning to do so. For instance, in India, universities have implemented e-recruitment portals and digital training systems for the development of faculty members and the efficiency of administration (Rana & Kaur, 2024). In the same way, the Bangladesh universities have introduced the online performance appraisal and employee information system but it has not implemented equally in all universities, both government and private. The use of digital technology as an important tool for enhancing HRM practices in higher education is gaining traction with such developments (Bashir et al., 2021).

Digitalization of HRM practices is not uniform in Pakistan, especially in public sector universities and institutions in less developed areas of Pakistan (Brohi et al., 2023; Tariq et al., 2025). Even though several universities have online platforms for HR related tasks in cities, some universities in Balochistan still have issues related to poor infrastructure, lack of digital literacy, lack of technical support, and reliance on manual HR. The limitations can cause delays in recruitment, restricted access to online training, poor record keeping and poor administrative effectiveness. Thus, a study of the process of digital technology adoption within the context of Higher Education Institutions (HEIs) is crucial in comprehending the level of contribution digital technology makes to the betterment of HRM practices in the context of Balochistan (Brohi et al., 2023; Hussain et al., 2025; Tariq et al., 2025).

The results of the present study suggest that the respondents had moderate level of digital technology adoption. Overall, respondents viewed digital tools as helpful in making administrative tasks easier, increasing accessibility to HR related platforms and tools, facilitating institutional encouragement, strengthening confidence in digital HR systems and decreasing manual workload. With regards to recruitment and selection, digital tools were seen as positive, especially for streamlining the recruitment process, selecting candidates fairly, increasing transparency, minimizing manual errors and accurately keeping track of candidates. Likewise, digital training and development practices were perceived as positive in the areas of professional development, skill acquisition, continuous learning, interactive learning and job performance.

Correlation analysis also showed that there is strong positive and statistically significant correlation between Digital Technology adoption and Recruitment and Selection with $r(398) = .680$, $p < .001$, and training and development with $r(398) = .720$, $p < .001$. Recruitment and selection was also correlated with training and development, with a strong positive correlation, $r(398) = .700$, $p < .001$. The results of this study indicate that there is a positive relationship between the level of digital technology adoption and HRM practices, especially in the area of recruitment and selection; and training and development. Therefore, digital technology is playing an important role in enhancing the efficiency and effectiveness of HR related in HEIs of Balochistan.

Though digital technology has become an integral part of HRM, yet Higher Education Institutes in Balochistan are still facing difficulties in effective use of digital tools in HRM practices. Despite the advancement of digitalization in HR processes, several manual processes, poor digital infrastructure, and weak technical support are still present, affecting aspects such as recruitment, training, performance management, compensation management, and employee records management. The issues could result in delays, lack of efficiency, poor transparency, and poor HR record keeping. Generally, the use of digital technology in the recruitment and selection processes, and in training and development processes in higher education institutions of Balochistan are moderate, but there is potential for improvement in both areas. Hence, this study aims to explore the linkage between the use of digital technology and HRM practices to derive empirical evidence for enhancing HR effectiveness of institutions.

The purpose of this research work will be to find out the use of digital technologies and its impact on

HRM practices in Higher Educational Institutions of Balochistan. The first aim is to gain insight into the extent to which digital technology is being used and the basic HRM processes (recruitment, training, and performance appraisal and compensation management). The second goal focuses on the effectiveness of these digital tools in supporting essential aspects of key employee management, specifically by assessing the impact on efficiency and accuracy from the use of online recruitment platforms, digital training modules and automated appraisal systems. Lastly, the study seeks to establish how digital technology adoption predicts the improvement of employees' record keeping and HR administration efficiency. Based on the objectives, the following research questions are formulated: What is the degree of Digital technology adoption in H.E.I of Balochistan? What are the implications for recruitment, training, performance appraisal and compensation of the use of digital technology? How well can digital adoption explain better employee record management and admin efficiency in these institutions?

Review of the Literature

The use of digital technology has become an integral part of HRM and is regarded as an important aspect of the HRM in the modern world because of the following benefits it offers to the HRM to manage HR functions effectively and efficiently at speed, accuracy and transparency. From HRM literature, electronic HRM is considered to be the application of electronic system to help HR functions, including recruitment, employee information management, communication, training and HR administrative decision making. Previous studies have demonstrated the positive effects of HR technology on the collection, storage, use and dissemination of employee-related information, and its ability to increase the systematic delivery of HR services (Bondarouk et al., 2017; Stone et al., 2015).

Digital HRM is not just a technical process but also an organizational change process which requires institutional readiness, user acceptance, infrastructure and management support. Bondarouk et al. (2017) identified the three dimensions of technology, organizational conditions, and people related factors as major dimensions that impact the adoption of e-HRM and its outcomes. Likewise, Marler and Parry (2016) had found that e-HRM capability is closely linked with the strategic HR involvement, indicating that the effectiveness of digital HR tool is higher when it has been supported by institutional planning and HR involvement (Bondarouk et al., 2017; Marler & Parry, 2016).

Digital technology adoption is especially significant within the higher education framework due to the need for effective systems in supporting faculty and administration staff in universities. Digital HR platforms can help boost communication, improve record keeping, simplify HR services, and enhance administrative coordination. The effectiveness of digital adaptation, however, relies on the digital infrastructure available and the employees' competence in utilizing the digital system. The Pakistani context of the studies on digital learning and digital transformation demonstrates that Internet access, digital literacy, infrastructure gaps and irregular technological readiness remain challenges in Pakistani universities, particularly in the remote and less developed areas of Pakistan (Jamil & Muschert, 2024; Ali & Alwi, 2023).

Digital technology has also impacted recruitment and selection by replacing many of the manual tasks with online platforms, applicant databases and technology-driven screening systems. E-recruitment lets an organization post job announcements, accept applications, trim down the list of counselors, talk with job hopefuls, and keep records of job hopefuls more efficiently. Stone et al. (2015) noted that technology has revolutionized the way organizations attract, select and retain staff and Nikolaou (2014) noted the growing popularity of the web-based and social networking systems in job search and recruitment processes. The findings of these studies suggest that digital recruitment can enhance the speed of hiring, reach of candidates and communication related to recruitment (Nikolaou, 2014; Stone et al., 2015).

Other issues in digital recruitment and selection include fairness and transparency. The online recruitment platforms can help in decreasing paperwork, maintaining records of candidates and help in the

more organized recruitment procedure. The academic literature also indicates that digital recruitment tools must be carefully designed, well monitored and supervised to prevent technical problems, unequal access and bias in the screening process. Thus, digital recruitment is best when institutions use technology to be efficient and clear about the recruitment process and their policies (Nikolaou, 2014; Stone et al., 2015).

Another significant change in HRM practices with the use of digital technology is training and development. E-learning platforms, online workshops and virtual training sessions, learning management systems offer flexibility for employees to enhance their knowledge and professional skills. Noe et al. (2014) explained workplace learning's role in human capital development is by formal training, informal training, and sharing of knowledge. Likewise, Salas et al., (2012) pointed out that effective training helps to deliver optimal performance at the personal, team and organizational level if it is well designed and suitable for the specific job (Noe et al., 2014; Salas et al., 2012).

Digital training tools are helpful in higher education as they facilitate ongoing staff professional development, both academic and administrative. Online training can enhance access to learning resources, reinforce job-related competence and skills and offer the employees chances to learn at their own speed and in their own needs. In Pakistan, however, success of digital training is contingent upon digital access, institutional support and employees' ICT skills. The transition to online systems resulted in challenges for Pakistani universities, such as internet connectivity and digital skills, and the impact of digital transformation was observed in higher education institutions in Balochistan, which brought opportunities but were limited by digital literacy and infrastructure issues (Ali & Alwi, 2023; Jamil & Muschert, 2024).

The previous studies also suggest that if HRM is implemented using digital tools, and the digital tools are accepted by the users, digital HRM will support the HR effectiveness. While organizations implement e-HRM to enhance efficiency, service quality and strategic contribution of HR (Parry and Tyson, 2011), it should be noted that the actual outcomes are dependent on the quality of the e-HRM implementation. Bondarouk et al. (2017) also suggested that the e-HRM outcomes could be operational improvement, HR service delivery and HR decision making. Thus, empirical studies are necessary to explore the relationship between digital technology adoption and HRM practices, especially in the institutional context where the digital systems are in the process of developing (Bondarouk et al., 2017; Parry & Tyson, 2011).

The literature reviewed indicates that the use of digital technology can enhance HRM, especially in the recruitment and selection, and training and development processes. Much of the current research, however, has been in general organizational contexts, developed contexts and/or a more general digital transformation in education. Empirical studies have been minimal in the field of digital technology adaptation in relation to HRM practices in Higher Education Institutions (HEIs) of Balochistan. This study thus seeks to fill this gap by analyzing the digital technology adoption and its relationship with the recruitment and selection process and training and development process of faculty and administrative staff of selected universities of Balochistan (Ali & Alwi, 2023; Stone et al., 2015).

Conceptual Framework

The conceptual framework places the digital technology adoption as the independent variable that affects two main human resource management practices; recruitment and selection and training and development. The digital technology adoption in the context of this study is the adoption of digital platform, web-based systems, technology based tools related to Human Resource Management in Higher Education Institutions of Balochistan. This framework is based on the assumption that more digital adoption leads to more efficient recruitment, fair and transparent recruitment practices and better management of candidate records. It also facilitates the training and development process through e-learning platforms, workshops and learning materials. So, it is expected that the digital technology use enhance the effectiveness of HRM in selected universities.

Research Methodology

A quantitative research approach was used to investigate the relationship between digital technology adaptation and some HRM practices in the higher education institutions in Balochistan. Total 400 respondents were recruited for the study, which consisted of faculty members and administrative staff of the University of Balochistan (UoB), Sardar Bahadur Khan Women University (SBKWU) and BUITEMS. Structured questionnaire was used to gather data in relation to digital technology adaptation, recruitment and selection and training and development. The level of digital technology adoption was measured by questions about using digital HR tools, access to them, institutional support, trust in digital HR tools, training, efficiency and workload reduction. The dependent variables were digital recruitment practices, digital selection practices and digital training and development practices. The data were analyzed by SPSS. Summarizing respondents' perceptions was done using descriptive statistics and the Pearson correlation analysis was used to determine the correlation between digital technology adoption, recruitment and selection, and training and development. This analysis was done according to real answers that were obtained from selected universities.

Data Analysis and Interpretations

The data analysis and interpretation of the study made from 400 respondents are presented in this section. The results are explained by the perception of the respondents towards the use of digital technology in the recruitment and selection process, training and development process. Interpretation of descriptive statistics and results of correlation is focused to check the association of digital adaptation with the selected HRM practices.

Table No1. Socio-economic distribution of the respondents

Demographic Variables	Category	Frequency	Percentage
Gender	Male	220	55.0
	Female	180	45.0
	Total	400	100.0
Age	31-40	100	25.0
	41-50	150	37.5
	51-60	150	37.5
	Total	400	100.0
Level of education	Master (16 year education)	130	32.5
	MS/ M. Phil (18 year education)	170	42.5
	Ph. D.	100	25.0
	Total	400	100.0
Designation	Academic faculty members	240	60.0
	Administrative staff members	160	40.0
	Total	400	100.0
Institution	UoB, Quetta	130	32.5
	SBKWU, Quetta	120	30.0
	BUITEMS, Quetta	150	37.5
	Total	400	100.0

The respondents comprise 400 individuals and the socio-economic distribution of the respondents is presented in this table. Five demographic variable are mentioned in the table such as gender, age, level of education, designation and institution. In terms of gender distribution, most of the respondents were male with a frequency of 220 (55.0%) of the total respondents. There was a lower frequency of female

respondents (180) or 45.0%. This means that males' participation in the study was slightly greater than females'. In terms of age, 41–50 years old and 51–60 years old had the greatest number of respondents, 150 (37.5%) each. The age group 31-40 years was at a relatively low number (100) representing 25.0% of the respondents. This indicated the prevalent age group of the respondents was the middle and older age group. With regards to educational qualification, the highest number of respondents had MS/M. Phil qualification (170) which constituted 42.5% of the total respondents. Respondents who had Master's degree/16 years of education had a frequency of 130, or 32.5% followed by respondents with BSc degree/19 years of education with frequency of 117, or 34.5%. The smallest number of respondents, 25.0% (100), were those with a Ph.D. degree. The results indicate that the majority of the respondents had a post-graduate education. Concerning designation, the majority of the respondents were the academic faculty with a frequency of 240 (60.0%) of the respondents. By contrast, 160 (40.0%) administrative staff members had a frequency. This suggests that in this study the academic staff were more visible than administrative staff. As regards the institution affiliation, the maximum number of the respondents were from BUITEMS, Quetta with 150 (37.5%) respondents. UoB had a frequency of 130 and a percentage of 32.5% which was followed by respondents from Quetta. Quetta had the minimum frequency (120) corresponding to 30.0% of the respondents from SBKWU. The distribution indicates that the respondents were from the three main institutions with BUITEMS contributing the highest percentage.

Table No 2. Digital technology adaptation

Statement	SA	A	NO	DA	SDA	*f*/ %	Mean	STD
I regularly use digital platforms for HR-related tasks.	49 (12.2)	141 (35.2)	78 (19.5)	84 (21.0)	48 (12.0)	400 (100)	3.15	1.23
Digital tools simplify my administrative responsibilities.	42 (10.5)	160 (40.0)	52 (13.0)	104 (26.0)	42 (10.5)	400 (100)	3.14	1.22
My institution encourages digital technology use for HR processes.	55 (13.8)	128 (32.0)	77 (19.2)	85 (21.2)	55 (13.8)	400 (100)	3.11	1.27
I am confident in using digital HR systems effectively.	45 (11.2)	151 (37.8)	64 (16.0)	96 (24.0)	44 (11.0)	400 (100)	3.14	1.22
Digital platforms are easily accessible in my institution.	61 (15.2)	145 (36.2)	42 (10.5)	91 (22.8)	61 (15.2)	400 (100)	3.13	1.34
Digital adoption improves efficiency of HR tasks.	72 (18.0)	124 (31.0)	64 (16.0)	75 (18.8)	65 (16.2)	400 (100)	3.16	1.36
I receive adequate training to use digital HR tools.	68 (17.0)	134 (33.5)	51 (12.8)	74 (18.5)	73 (18.2)	400 (100)	3.12	1.39
Digital tools reduce manual workload in HR.	60 (15.0)	125 (31.2)	74 (18.5)	78 (19.5)	63 (15.8)	400 (100)	3.10	1.32

Table No. 2 shows the respondents' perception of the adoption of the digital technology in HR-related functions. The results suggest that the respondents had a moderate level of consensus in regard to various practices of digital technology use, such as access to digital platforms, confidence in digital HR systems, encouragement by institutions, availability of training, reduction of workload and improvement of efficiency. The mean scores were recorded 3.10 to 3.16 which indicates that the ICT adoption in the institutions was generally moderate.

In terms of this statement, 141 respondents (35.2%) agreed with the statement which indicates that a significant percentage use digital platforms regularly to perform HR related activities. This was followed by 84 respondents (21.0%) who disagreed, 78 respondents (19.5%) who had no opinion. Further, 49

participants (12.2%) strongly agreed while 48 (12.0%) strongly disagreed. The mean score of 3.15 and standard deviation of 1.23 suggest a moderate but somewhat positive attitude towards the use of digital HR platforms.

Most (160, 40.0%) agreed that the digital tools make their administration easier. 104 of the respondents disagreed (26.0%), and 52 of them were neutral (13.0%). There were equal numbers of people who strongly agreed with the statement and those who strongly disagreed with it (42, or 10.5% each). The mean value of 3.14 and standard deviation of 1.22 indicate that the respondents moderately agree that digital tools help them to ease administrative complexity.

As to the institutional encouragement, the most frequent was agree, with 128 respondents (32.0%), meaning that a lot of respondents see institutional encouragement of digital HR processes. Eighty-five respondents (21.2%) disagreed, while 77 (19.2%) were in the middle. Additionally, 55 respondents (13.8%) strongly agreed while 55 respondents (13.8%) strongly disagreed. The mean score is 3.11 and has a standard deviation of 1.27 indicating moderate perceptions of institutional encouragement for the use of digital technologies.

The highest proportion of respondents agreed that they were confident in using a digital HR system, with 151 respondents (37.8%) indicating a significant group of respondents feels confident in using a digital HR system effectively. This was followed by 96 respondents (24.0%) who disagreed with the above statement and 64 respondents (16.0%) who didn't respond. Additionally 45 respondents (11.2%) agreed strongly, and 44 respondents (11.0%) disagreed strongly. An average score of 3.14 and a standard deviation of 1.22 suggest that there is a moderate level of confidence among the respondents.

Regarding accessibility, the greatest number of respondents agreed, with 145 (36.2%) respondents stating that the digital platforms are accessible in their institutions. Of these, another 91 (22.8%) disagreed. The number of respondents who strongly agreed and strongly disagreed was 61 (15.2%) for both groups, with 42 (10.5%) respondents being neutral. There was a moderate level of accessibility, with a mean score of 3.13 and a standard deviation of 1.34, with some variation in responses.

Agree (n=124, 31.0%) was the top response for this statement, suggesting a significant number of respondents think that digital adoption is enhancing HR efficiency. These were followed by 75 (18.8%) who disagreed and 72 (18.0%) who strongly disagreed. In addition, 65 respondents strongly disagreed (16.2%) and 64 respondents were neutral (16.0%). The score with a mean of 3.16, which is the highest of all statements and has a standard deviation of 1.36, shows a moderately positive view of digital use as a means to enhance HR task efficiency.

The number of respondents in this section who agreed was the highest, with 134 respondents (33.5%), indicating that some respondents believe that there is sufficient training for digital HR tools. This was followed by 74 of the respondents who disagreed (18.5%) and 73 who strongly disagreed (18.2%). Sixty-eight respondents (17.0%) strongly agreed and 51 respondents (12.8%) had no opinion. The mean score of 3.12 and standard deviation of 1.39 suggest a moderate level of perceived training adequacy, but there is a moderate level of variation in the responses.

Regarding the reduction of manual workload, the majority of respondents agreed, with 125 respondents (31.2%) answering that a lot of their respondents think that digital tools are helpful in reducing manual HR work. Seventy-eight (19.5%) disagreed and 74 (18.5%) were undecided. Furthermore, the 60 respondents (15.0%) strongly agreed, and the 63 respondents (15.8%) strongly disagreed. The mean score of 3.10 is the lowest among the statements, and a standard deviation of 1.32 points indicates that while the respondents are moderately agreeing with the statement, the perception of the impact of digital means to reduce manual workload is comparatively low.

Table No 3. Recruitment and Selection

Statement	SA	A	NO	DA	SDA	*f*/ %	Mean	STD
Digital tools improve efficiency of recruitment	49 (12.2)	150 (37.5)	61 (15.2)	89 (22.2)	51 (12.8)	400 (100)	3.14	1.26
Online platforms facilitate fair candidate selection	51 (12.8)	188 (47.0)	77 (19.2)	70 (17.5)	14 (3.5)	400 (100)	3.48	1.03
Digital recruitment reduces manual errors	80 (20.0)	141 (35.2)	61 (15.2)	69 (17.2)	49 (12.2)	400 (100)	3.33	1.31
Digital recruitment speeds up hiring process	110 (27.5)	225 (56.2)	32 (8.0)	25 (6.2)	8 (2.0)	400 (100)	4.01	0.89
Recruitment decisions are more transparent	68 (17.0)	176 (44.0)	29 (7.2)	95 (23.8)	32 (8.0)	400 (100)	3.38	1.24
Online recruitment platforms are user-friendly	49 (12.2)	153 (38.2)	60 (15.0)	96 (24.0)	42 (10.5)	400 (100)	3.18	1.23
Digital tools help maintain candidate records accurately	89 (22.2)	166 (41.5)	49 (12.2)	61 (15.2)	35 (8.8)	400 (100)	3.53	1.24
Digital recruitment aligns with institutional policies	54 (13.5)	161 (40.2)	42 (10.5)	101 (25.2)	42 (10.5)	400 (100)	3.21	1.25

The results of the respondents' perceptions on the role of digital tools in recruitment and selection processes are shown in Table No. 3. The findings indicate that in general, digital recruitment tools are seen as positive regarding its advantages in hiring, in doing the right things for the right candidates, in avoiding manual errors, in transparency, in holding candidate records and in bringing recruitment practices to the institutional policies. The mean scores varied from 3.14 to 4.01, representing moderate to high level of agreement, and the highest score was observed for digital recruitment as a means for quicker recruitment.

In this case, 150 respondents (37.5%) agreed and said that digital tools have improved the recruitment efficiency, which shows that a significant number of them have an opinion that it has been beneficial. Of the remaining 89 (22.2%) who disagreed, 61 (15.2%) did not have a response. Additionally, 12.8% of the respondents strongly disagreed, while 12.2% strongly agreed. The overall level of agreement is medium (3.14 with a standard deviation of 1.26), indicating digital tools are seen as helpful when it comes to recruiting efficiently (but with reservations from some respondents).

In terms of fairness in candidate selection, 188 (47.0%) respondents indicated online platforms are very helpful in promoting fairness in selecting candidates. There were also 77 respondents (19.2%) who didn't have an opinion, and 70 (17.5%) who disagreed. Also, 51 respondents (12.8%) strongly agreed and 14 respondents (3.5%) strongly disagreed. With a mean of 3.48 and a standard deviation of 1.03, there is a relatively positive perception, compared to a number of other statements, where less variation in the responses is experienced.

The highest number of respondents (141, 35.2%) agreed with the statement that digital recruitment helps to eliminate manual errors. 80 respondents (20.0%) strongly agreed, meaning that over half of the respondents were in favour of the idea that digital recruitment helps to reduce the errors. Additionally, 69 respondents (17.2%) disagreed, 61 respondents (15.2%) were neutral, and 49 (12.2%) strongly disagreed. The mean score of 3.33 and standard deviation of 1.31 indicates a moderately positive perception but with some variations in scores.

This was the statement with the most agreement with 225 (56.2%) agreeing that digital recruitment speeds up the hiring process. 110 respondents (27.5%) strongly agreed, indicating strong support for digital recruitment's efficiency in speeding up hiring (see chart below). Thirty-two respondents (8.0%) had no

opinion, 25 respondents (6.2%) disagreed and only eight (2.0%) strongly disagreed. The average score of 4.01, and the lowest standard deviation of 0.89, suggests that digital recruitment works well and is perceived as effective by a lot of organizations.

For what concerns transparency, most of the respondents expressed their consensus (176 respondents, 44.0%) that digital recruitment is considered to improve the transparency of decision-making processes. 95 (23.8%) disagreed and 68 (17.0%) strongly disagreed. In addition, 32 (8.0%) strongly disagreed, and 29 (7.2%) did not agree/disagree. With a mean score of 3.38 and standard deviation of 1.24, the level of transparency in digital recruitment decisions is perceived to be moderately positive.

The highest frequency of the user-friendliness of online recruitment platforms was in the agree category, with 153 respondents (38.2%). 96 (24.0%) disagreed, and 60 (15.0%) responded 'no opinion'. Also, 49 (12.2%) strongly agreed and 42 (10.5%) strongly disagreed. The overall mean score of 3.18, and the standard deviation of 1.23, indicates a moderate level of agreement, meaning that while a significant portion of the respondents had no problems using online recruitment platforms, some did notice some issues or concerns.

In terms of maintaining accurate candidate records, the most respondents agreed – with 166 respondents (41.5%) saying that digital tools are effective at maintaining accurate candidate records. Support for this statement was high with 89 (22.2%) agreeing strongly. Furthermore, 61 (15.2%) disagreed, 49 (12.2%) had no opinion and 35 (8.8%) strongly disagreed. The mean score 3.53 on a 1-5 scale with a standard deviation of 1.24 shows that the perception of digital tools supporting the accurate maintenance of candidate records is positive.

The greatest number of respondents agreed that the digital recruitment practices are aligned with institutional policies, with 161 respondents (40.2%) indicating that they saw digital recruitment processes as being consistent with institutional policies and procedures. There were 54 respondents (13.5%) who strongly disagreed and 101 (25.2%) disagreed. Another 42 respondents (10.5%) didn't have a strong opinion either, and 42 respondents (10.5%) strongly disagreed. The mean score of 3.21-1.25 of the respondents indicates a moderate level of agreement that digital recruitment is in line with institutional policies, with some respondents being not so sure.

Table No 4. Training and Development

Statement	SA	A	NO	DA	SDA	*f*/ %	Mean	STD
E-learning platforms enhance professional development	105 (26.2)	227 (56.8)	27 (6.8)	26 (6.5)	15 (3.8)	400 (100)	3.95	0.96
Digital training tools are easily accessible	74 (18.5)	150 (37.5)	33 (8.2)	82 (20.5)	61 (15.2)	400 (100)	3.23	1.37
Online workshops improve skill acquisition	45 (11.2)	151 (37.8)	61 (15.2)	93 (23.2)	50 (12.5)	400 (100)	3.12	1.24
Digital tools support continuous learning	40 (10.0)	156 (39.0)	74 (18.5)	93 (23.2)	37 (9.2)	400 (100)	3.17	1.17
Online training aligns with career goals	70 (17.5)	132 (33.0)	51 (12.8)	79 (19.8)	68 (17.0)	400 (100)	3.14	1.38
Digital tools facilitate interactive learning	45 (11.2)	151 (37.8)	71 (17.8)	95 (23.8)	38 (9.5)	400 (100)	3.17	1.19
Institutions provide adequate digital training resources	47 (11.8)	151 (37.8)	60 (15.0)	93 (23.2)	49 (12.2)	400 (100)	3.13	1.25
Digital training improves job performance	77 (19.2)	180 (45.0)	65 (16.2)	45 (11.2)	33 (8.2)	400 (100)	3.56	1.16

The description of Table No. 4 is about the use of digital tools in training and development and the perceptions of the respondents. The results indicated that in general, respondents considered digital training to be helpful in increasing professional development, job performance, continuous learning, interactive learning and skill enrichment. On average, the scores have been between 3.12 and 3.95, representing a moderate to positive perception of the use of digital tools in training, with the highest agreement coming from the question on the role of e-learning platforms in professional development.

In this, the maximum number of respondents have agreed with the statement, with 227 respondents (56.8%) answering it with a frequency of 56.8%. A total of 105 (26.2%) strongly agreed with the role of e-learning to enhance professional development. 27 respondents (6.8%) did not respond to the question and 26 (6.5%) disagreed, and 15 (3.8%) strongly disagreed. With a mean score of 3.95 and a standard deviation of 0.96, it shows that participants are generally in agreement with the scores, with a high level of consistency.

When asked how easy it was to access digital training tools, the most frequent rating was agree with 150 people (37.5%) indicating that they found digital training tools to be easy to access. Eighty-two (20.5%) disagreed and 74 (18.5%) strongly disagreed. Also, 61 respondents (15.2%) strongly disagreed but 33 respondents (8.2%) didn't have an opinion. The standard deviation of 1.37 and mean score of 3.23 suggest moderate agreement, but the variability of the standard deviation, indicates that the experiences of access that respondents had varied.

The highest number of respondents (151 respondents or 37.8%) agreed that online workshops contribute to skill acquisition, suggesting that a large proportion of respondents recognized that online workshops help with skills development. Ninety-three (23.2%) disagreed and 61 (15.2%) had no opinion. In addition, 50 respondents strongly disagreed (12.5%) and 45 respondents strongly agreed (11.2%). The mean score of 3.12 and standard deviation of 1.24 reflects a moderate perception of the usefulness of online workshops, indicating that a large proportion of respondents find them useful but that not all respondents get the same benefit from them.

When it comes to ongoing learning opportunities, the largest number of respondents agreed, 156 (39.0%) said that digital tools are perceived as supportive of ongoing learning opportunities. Ninety-three (23.2%) disagreed and 74 (18.5%) were neutral. Besides, 40 respondents (10.0%) strongly agreed and 37 respondents (9.2%) strongly disagreed. The mean score of 3.17 with a standard deviation of 1.17, indicates the level of agreement is moderate, meaning that digital tools have an impact on continuous learning, but some respondents are still unsure or unconvinced.

The highest number of respondents agreed that this was relevant to career development – 132 respondents (33.0%), where many felt that online training was perceived to be relevant for career development. This was followed by 70 respondents in total (17.5%) who strongly disagreed and 79 (19.8%) who disagreed. Additionally, 68 of the respondents (17.0%) strongly disagreed and 51 (12.8%) did not respond. Overall, there is moderate level of agreement with a mean score of 3.14 and a standard deviation of 1.38, and there is a lot of variation in the responses on whether or not Online Training is appropriate for a person's career needs.

Concerning Interactive learning, the highest number of responses was for agree (151 respondents or 37.8%). Many respondents felt that digital tools enable interactive learning experiences. There were 95 respondents (23.8%) disagreeing and 71 (17.8%) who had no opinion on this question. Furthermore 45 respondents (11.2%) strongly agreed and 38 respondents (9.5%) strongly disagreed. The mean score of 3.17 and standard deviation of 1.19 indicate that participants have a moderate level of perception of digital tools as facilitators of interactive learning.

The highest number of respondents agreed about the provision of digital training resources in their institutions, with 151 respondents (37.8%) indicating that they felt their institutions were in a good position to provide digital training support. Ninety-three respondents disagreed (23.2%) and 60 respondents had no

opinion (15.0%). In addition, 49 (12.2%) are strongly disagreeing, and 47 (11.8%) strongly agreeing. With a mean score of 3.13 and a standard deviation of 1.25, the overall level of agreement is moderate indicating that there is some level of institutional support, but there is a need to strengthen this.

With regard to the statement, 180 (45.0%) of the respondents agreed that digital training leads to improved job performance, meaning that a large part of the respondents saw digital training positively. 77 respondents (19.2%) strongly agreed and 65 respondents (16.2%) had no opinion. Forty-five (11.2%) disagreed and 33 (8.2%) strongly disagreed, meanwhile. The mean score was 3.56, the standard deviation 1.16, indicating a relatively positive perception: generally, digital training is perceived as useful to improve the work-related performance.

Table No 5. Correlation between Digital Technology adoption and HRM Practices

Digital Technology adoption	Recruitment and Selection	
	Pearson Correlation	.680**
	Sig (2-tailed)	.000
	N	400
** Correlation is significant at the 0.01 level (2-tailed)		
Digital Technology adoption	Training and Development	
	Pearson Correlation	.720**
	Sig (2-tailed)	.000
	N	400
** Correlation is significant at the 0.01 level (2-tailed)		
Recruitment and Selection	Training and Development	
	Pearson Correlation	.700**
	Sig (2-tailed)	.000
	N	400
** Correlation is significant at the 0.01 level (2-tailed)		

Pearson correlation analysis was used to explore the correlation between the digital technology adaptation, recruitment and selection, and training and development. Higher correlation were found in all the relationships and they were statistically significant at the 0.01 level, meaning that there is a positive and significant relationship between higher adaptation of digital technology and better HRM practices. There was a high positive correlation between digital technology adaptation and recruitment and selection $r(398) = .680$, $p < .001$. This suggests that the use of digital technology is associated with improved effectiveness of recruitment and selection practices as the use of digital technology grows. The findings indicate that digital platforms can play a role in streamlining recruitment processes to make them more efficient, transparent, and systematic. Likewise, the relationship between digital technology adaptation and training and development was found to be significant with a positive correlation $r (398) = .720$, $p < .001$. This was the highest correlation of all the reported correlations. The finding suggests that a higher level of digital technology is positively linked with better training and development practices like having access to e-learning platforms, online workshops, access to continuous learning and access to digital training resources. Recruitment and selection was also correlated with training and development with a strong positive correlation, $r (398) = .700$, $p < .001$. This indicates that there is a positive relationship between better digital recruitment and selection and digital training and development practices in institutions. The outcome is the consistency of implementing the functions of digital HRM in institutions. The overall correlation results suggest that digital technology adaptation is related to the key HRM practices with a high and positive correlation. The results suggest that a more successful use of digital tools in the institution should lead to

better outcomes in recruitment and selection, training and professional development.

Discussions

The results of this study show that the level of digital technology adoption is at a moderate level in the Higher Education Institutions of Balochistan. The mean scores of digital technology adaptation ranged from 3.10 to 3.16 indicating that the respondents mainly found the digital HR tools useful but not fully institutionalized. The highest mean was found with the statement 'Digital uptake leads to better efficiency of HR tasks' and the lowest mean was found with the reduction of manual workload. This indicates that HR-related activities are using digital systems, albeit not completely replacing manual systems. The results of the study align with the e-HRM literature that states that the efficiency of digital HR systems is dependent on the infrastructure, training and organizational preparedness (Bondarouk et al., 2017; Parry & Tyson, 2011).

The findings with regards to recruitment and selection revealed positive attitudes towards digital recruitment. The most consensus was for the statement 'Digital recruitment accelerates the hiring process' with 335 respondents (83.7%) agree or strongly agree, and the highest mean score of 4.01. Respondents also noted that digital tools enable the management of candidate records with accuracy, promote fair candidate selection and enhance transparency in candidate selection processes. This indicates that online recruitment platforms can streamline the recruitment process for speed, organization and transparency. This corroborates earlier studies that found technology has altered the recruitment process and practices, in terms of the effective communication with applicants, screening of the candidates and efficiency of recruitment (Nikolaou, 2014; Stone et al., 2015).

The results of the training and development also support a positive attitude towards digital tools. The greatest consensus was found in the e-learning platforms improve the professional development statement with 332 respondents agreeing or strongly agreeing (83.0%) and a mean of 3.95. Digital training was also seen as valuable in enhancing job performance, ongoing training and learning and interactive learning. The findings here show that online learning platforms, online workshops, and online coaching tools, can be part of the professional development of academic staff and administrators. This aligns with training literature, which states that a well-designed learning system increases employee knowledge, skills and organizational performance (Noe et al., 2014; Salas et al., 2012).

Digital technology adaptation and HRM practices have positive correlations, which is further supported by the results of the correlation. The digital technology adaptation and recruitment and selection was found to have a strong positive and statistically significant relationship with $r(398) = .680$ and $p < .001$. Likewise, the training and development positively and strongly correlated with digital technology adaptation, $r(398) = .720$, $p < .001$. This suggests that the higher the level of digital technology adoption, the more positive the institution's recruitment and training practices. The results of this study align with the previous e-HRM studies that indicated that effective implementation of digital HRM can result in improved HR service delivery, operational efficiency and improved HR decision making (Bondarouk et al., 2017; Marler & Parry, 2016).

There was also a strong positive correlation between recruitment and selection and training and development $r(398) = .700$, $p < .001$. This finding implies that institutions that are successful in effectively implementing digital tools in recruitment are more likely to be successful in implementing digital tools in training and development. This finding is indicative of the interrelatedness of digital HRM practices where a betterment of one HR function can facilitate betterment of another HR function. The results overall validate that there is a significant relationship between the adoption of digital technology and the selected HRM practices in the H.E.I's of Balochistan. The moderate level of digital adaptation, though, also suggests greater digital infrastructure, employee training and institutional policies that promote the effective use of digital HR systems (Parry & Tyson, 2011; Stone et al., 2015).

Conclusions

The present study explored the correlation between digital technology adoption and some of HRM practices in Higher Education Institutions of Balochistan. The results indicate that the digital technology adoption level of academic faculty is moderate and it is also moderate in administrative staff. Overall, the respondents saw digital tools as beneficial in supporting HR related efficiency, access, institutional support, confidence in using digital HR systems, and lessening manual workload. The moderate mean scores however suggest that the use of digital HR practices is still taking place and need to be strengthened further in a way of institutions. The results also show that the digital technology adoption is linked to positively recruitment and selection. The use of digital recruitment was found to benefit the candidate selection process by promoting fair selection and transparency, by reducing manual errors, and by increasing the speed of recruitment, as well as accurately keeping candidate records. The result of the correlation showed a strong positive statistically significant correlation between digital technology adoption and the recruitment and selection, $r(398) = .680$, $p < .001$. This means that more digital technology is associated with better recruitment in HEIs.

Likewise, the results show that digital tools have a great importance in training and development. The e-learning platforms, online workshops, digital training materials and interactive learning tools were seen as a potential for professional development, acquiring skills, continuous learning and job performance. The results of correlation analysis indicated that the digital technology adoption and training and development were positively and statistically significant, $r(398) = .720$, $p < .001$. This implies that institutions that are more adapted to digital platforms are likely to have better training & development practices.

Additionally, there was a high degree of similarity between recruitment and selection and training and development, $r(398) = .700$, $p < .001$. It turns out that digital improvement in one HRM function could help to support improvement in another HRM function. Conclusively, it can be concluded from overall results that overall digital technology adaptation is significantly related to key HRM practices such as recruitment and selection, training and development practices in HEIs of Balochistan. Based on the results, higher education institutions should focus on digital HR platforms that are less prone to failure, enhance the access to digital systems and ensure the ongoing education of academic and administrative staff. Institutions should also have well-defined policy on the use of digital tools for recruitment and training. Enhancing digital infrastructure and staff capacity can contribute to more efficient HR, transparent and professional staff development. To conclude, adopting digital technology is one of the key needs to modernize HRM practices in the higher education institutions of Balochistan.

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