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The role of Information Technology in Enhancing Human Resource Performance: A Case Study of Sulaimani Polytechnic University

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Abstract

Information technology (IT) has become crucial to corporate operations in the current technological era. Its dynamic nature makes communication and processes more effective, especially in human resource management (HRM). This research aims to examine the impact of information technology (IT) on enhancing human resource (HR) performance at Sulaimani Polytechnic University (SPU). IT has played a major role in providing businesses with greater efficiency and effectiveness. This study will examine some of the basic aspects of IT, such as types of devices and equipment (hardware), software, networks, and databases, to evaluate their use in relation to variables associated with HR performance, including quality of work, speed of service delivery, and efficiency.

To conduct this research, a descriptive-analytical case study method was utilized. The data were collected from a structured survey/questionnaire of 148 employees at Sulaimani Polytechnic University. SPSS was used to test reliability and validity; Cronbach's alpha coefficient values were above 80%, and it was then used to conduct correlation and regression analysis, demonstrating that all four components of IT had a positive statistical correlation with all four HR performance variables.

The study found a critical strategic role of Information Technology (IT) Infrastructure in improving SPU's Human Resource (HR) performance. In addition to building technological resources, implementing integrated HR information systems, and investing in ongoing IT training, each of these three aspects is vital to achieving an efficient institution that is capable of a sustainable competitive advantage in higher education.

Keywords: Information Technology, Human Resource Performance, Database System, Network Infrastructure, Software, Sulaimani Polytechnic University.

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ڕۆڵی تەکنۆلۆجیای زانیاری لە بەرزکردنەوەی ئەدای سەرچاوە مرۆییەکان: توێژینەوەیەکی مەیدانی لە زانکۆی پۆلیتەکنیکی سلێمانی

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پوختە

تەکنۆلۆجیای زانیاری (IT) لە سەردەمی تەکنۆلۆجیای ئێستادا بووەتە بەشێکی بنەڕەتی لە کارەکانی دامەزراوەکاندا. سروشتە دایناميکییەکەی وایکردووە کە پەیوەندییەکان و پرۆسەکان کاریگەرتر بن، بەتایبەتی لە بەڕێوەبردنی سەرچاوە مرۆییەکاندا .(HRM) ئامانجی ئەم توێژینەوەیە لێکۆڵینەوەیە لە کاریگەریی تەکنۆلۆجیای زانیاری (IT) لەسەر بەرزکردنەوەی ئەدای سەرچاوە مرۆییەکان (HR)لە زانکۆی پۆلیتەکنیکی سلێمانی .(SPU) لە کاتێکدا تەکنۆلۆجیای زانیاری ڕۆڵێکی سەرەکی بینیوە لە دابینکردنی کارایی و کاریگەریی زیاتر بۆ کۆمپانیا و دامەزراوەکان، لەم توێژینەوەیەدا هەندێک لە لایەنە بنەڕەتییەکانی تەکنۆلۆجیای زانیاری تاوتوێ دەکرێن، وەک جۆرەکانی ئامێر/ڕەقەکاڵا (Hardware)، نەرمەکاڵا(Software) ، تۆڕەکان(Networks) ، و بنکەی دراوەکان (Databases)، بەمەبەستی هەڵسەنگاندنی بەکارهێنانیان بەرامبەر بە گۆڕاوەکانی پەیوەست بە ئەدای سەرچاوە مرۆییەکان، لەوانەش: کوالێتیی کار، خێرایی پێشکەشکردنی خزمەتگوزاری، و کارایی .(Efficiency)

بۆ ئەنجامدانی ئەم توێژینەوەیە، میتۆدی توێژینەوەی حاڵەتی وەسفی-شیکاری (Descriptive-analytical case study method)بەکارهێنراوە.داتاکان لە ڕێگەی ڕاپرسییەکی داڕێژراوەوە لە ١٤٨ فەرمانبەری زانکۆی پۆلیتەکنیکی سلێمانی کۆکراونەتەوە. بەرنامەی SPSS بەکارهێنراوە بۆ تاقیکردنەوەی متمانەپێکراوی (Reliability) و ڕاستگۆیی(Validity) ؛ بەهای هاوکۆڵکەی ئەلفای کرۆنباخ (Cronbach’s alpha) سەرووی ٨٠٪ بوو، دواتریش بۆ شیکاریی هاوبەستەگی (Correlation) و ڕێگرێسن (Regression)بەکارهێنرا، کە تێیدا سەرجەم چوار پێکهاتەکەی تەکنۆلۆجیای زانیاری هاوبەستەگییەکی ئامارِیی ئەرێنییان لەگەڵ سەرجەم چوار گۆڕاوەکەی ئەدای سەرچاوە مرۆییەکان نیشان دا .

توێژینەوەکە دەریخست کە ژێرخانی تەکنۆلۆجیای زانیاری (IT Infrastructure) ڕۆڵێکی ستراتیژیی گرنگی هەیە لە باشترکردنی ئەدای سەرچاوە مرۆییەکانی زانکۆی پۆلیتەکنیکی سلێمانی. سەرەڕای بنیادنانی ژێرخانێکی بەهێزی تەکنۆلۆجیا، جێبەجێکردنی سیستەمی زانیاریی یەکگرتوی سەرچاوە مرۆییەکان (Integrated HR Information Systems)، و وەبەرهێنان لە ڕاهێنانی بەردەوامی فەرمانبەران، هەر یەک لەم سێ لایەنە زۆر پێویستن بۆ بەدەستهێنانی دامەزراوەیەکی کاریگەر کە توانای هەبوونی باڵادەستیی ڕکابەریی بەردەوامی هەبێت لە خوێندنی باڵادا.

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Introduction

The increasing popularity of IT in modern times has made it an essential component for improving the performance of business processes. These benefits have been felt in several different sectors, one of which is Human Resource Management (HRM). This research explores the role of Information Technology in improving the effectiveness of Human Resource Performance, focusing particularly on Sulaimani Polytechnic University (SPU).In an increasingly digitized business world, IT has become a significant enabler in redefining organisational processes, especially the line-of-business functions entitled HRM processes(Turulja and Bajgoric, 2018). As changes in the Fourth Industrial Revolution continue to cause seismic shifts, so too have the HR functions, which have moved from traditional, paper-based processes to converged, technology-based processes such as HRIS, e-recruiting systems, performance management tools, and cloud storage systems of information(Turulja and Bajgoric, 2018, Prastyaningtyas et al., 2023). Such tools would achieve a degree of automation for routine work, increasing consistency, improving real-time ongoing project decision-making, and providing better talent planning analytics.

Modern IT systems have transformed the way work is conducted in HR functions, repositioning HR support functions as strategic areas. IT applications have enabled HR professionals to focus more on building talent and strategizing, as the mundane manual activities have been reduced. HR leaders are also working to enhance employee satisfaction and engagement, and organizational agility through better communication and feedback channels(Tursunbayeva, 2019; Stachová et al., 2024). Even as these digital solutions have gained rapid acceptance in the private sector, most institutions of higher education continue to operate antiquated human resource functions, ranging from disconnected employee records and offline hiring cycles with few performance assessment tools, thus limiting the effectiveness of the institution(Puspita, 2024; Al-Faouri et al., 2024).

Although the current analysis asserts that ICT improves HRM performance overall, previous studies have not given much insight into the settings in which these events take place. In actuality, prior research has focused more on the spread of ICT in organizations as a whole and has not taken into account the importance of specific infrastructure components (hardware units, software applications, databases, communication networks, and human IT capabilities) for the efficacy of HR in higher education institutions. The present study proposes a novel method for gathering data that is specific to Sulaimani Polytechnic University (SPU) and is not general in nature.(Al Samman and Al Aathem, 2020).

Due to the inefficiency of the technology employed, the SPU's human resources division frequently faces operating challenges. Delays in administrative activities, reliance on sluggish procedures, and the unreliability of electronic record-keeping are some of the issues impeding the HR department's operation. The poor use of the current HRIS, the databases' lack of integrity, and the institution's own technological capabilities all make these problems worse. Due to these issues, the HR department's efforts are hampered by the inability to obtain the required information in a timely manner, inadequate information analysis, and the execution of important university functions, including hiring, compensation, and employee evaluation. (Kourda Hayat, 2021).

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Within this context, the study examines four fundamental IT components—hardware, software, database, and networking—and their impact on HR performance indicators: quality of work and speed at SPU. Moreover, the research investigates organisation-specific and human-related factors that influence the implementation of IT in academic HRM. This study is among the pioneering studies of such aspects in public universities of developing countries. The project studied IT Resource Infrastructure at SPU, identified the barriers and motivators to utilizing IT, and provided recommendations aimed at enhancing HR functionality. The research seeks to shed light on how academic institutions can develop a competitive advantage by incorporating simplified HR functions into their strategic objectives.

The remaining paper will be organized as follows, Part 2 will consist of a literature review that looks at principal theories and empirical literature examining performance measures of technology-IT within HRM and technology-IT adoption frameworks; Section 3 will describe the methodology used for the research that includes the case study design, sample selection, data collection methods, and techniques of analysis used; Section 4 discusses the findings from the survey on how different elements of IT affect the performance of HR and the factors that allowed or limited its use; and lastly, Section 5 will provide the connection to corporate pedagogy literature and provide implications on future research and suggest how SPU should respond to this type of research.

Statement of Problem and Research Question

In a technology-oriented world, technological changes happen rapidly with contributions from several enabling factors regarding the use of ICT and continuous training of employees, both of which contribute to the overall HR performance of an organisation. Nevertheless, organisations still do not view upgrading their technology infrastructure as something worthy of a priority, but rather as an expense: IT has an accumulative effect on organisational efficiency and performance over a period of time when combined with employee training.

As earlier stated, this research study is an inquiry into how the respondents addressed the fundamental questions that set the framework of this specific research study.

Core Research Questions:

1. What is the role of IT in enhancing HR performance at SPU?

2. To what extent do devices and equipment contribute to enhancing HR performance?

3. To what extent does the use of IT software affect HR performance?

4. In what way does database management contribute to the enhancement of HR performance?

5. What is the role of networks in enhancing HR performance?

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Research Model

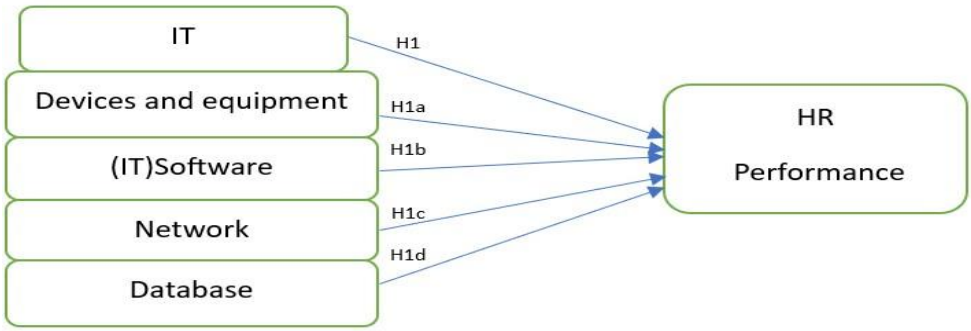


Figure 1: The Conceptual Model

Research Hypotheses:

The research suggests the following hypotheses:

H1: Information Technology has a significant effect on HR performance.

H1a: Devices and equipment have positively affected HR performance.

H1b: The use of IT software increases HR performance.

H1c: Database systems play a crucial role in enhancing HR performance.

H1d: Networks have aided in the efficiency of HR performance.

Research Method

This study employed a quantitative research approach using a survey questionnaire to achieve its research objectives. Regarding the theoretical framework, the study included a descriptive analysis to define key concepts, terms, and general frameworks of information technology and their relationship to human resource performance. The applied part of this study incorporated both a case study design, which provided a comprehensive insight into the institution under study, and a correlational design, by which variable relationships were explored. The data were gathered using a structured questionnaire, then processed and analyzed using SPSS (Statistical Package for the Social Sciences) version 25.

Literature Review

There have been various researchers eager to study Electronic Human Resource Management (E-HRM), and their interests have overwhelmingly focused on two key areas: Information and Communication Technology (ICT) and Human Resource Management (HRM) (JO, 2012, Al Samman and Al Aathem, 2020, Bourke and Crowley, 2015, Sparrow et al., 2016, Turulja and Bajgoric, 2018, Kourda Hayat, 2021, Prastyaningtyas et al., 2023). According to (Sparrow, 2010, Qatamin and Alkoud, 2023), HR offices are attempting to automate personnel operations with HR systems to enable services to be delivered without direct HR interaction. As reported by (JO, 2012, Sutrisno et al., 2023),

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information technology (IT) has become integral to the modern world; consequently, human resource management has also been affected in numerous ways through its adoption and application. Despite the rapid growth of information technology in HRM, the extent to which its application extends its impacts has not yet been extensively researched.

Based on four key ICT developments that have had particular value to HRM are: the development of shared service models, the removal of intermediaries in the HR service delivery chain, greater use of ERP systems within businesses, and the switch to e-enabled self-service models for HR. In the words of Oehlhorn et al. (2020) and Alqarni et al. (2023), from the viewpoint of information systems, organizations that aim to achieve consistency of organizational processes and Information Technology generally underappreciate the role of HRM in enterprise value creation. To better understand the role of HRM in ensuring proper alignment, we need to investigate how employees at the individual level add to this alignment and how HRM practices facilitate their contribution.

Moreover, Prastyaningtyas et al. 2023) also emphasize the role of IT in the continuous development of HR professionals in a globalized, technology-driven environment. IT is also a strategic facilitator for building the skills and competencies of HR professionals and for providing professional development opportunities. However, there are still some challenges regarding implementation issues, a lack of digital skills, and organizational barriers. Furthermore, (Altaf et al., 2019) It is generally considered that e-HRM has an important role in extant firm performance, though there is evidence in Pakistan's textile sector that it sometimes can have a negative direct influence. Conversely, there are also findings that suggest that organizational performance can be enhanced by e-HRM indirectly, but this is dependent on the presence of organizational and ICT as effective mediators of action, ICT can be a substantial mediator of the relationship between e-HRM and firm performance. (Yousifi and Khayyat, 2019) Furthermore, the general performance of HRM as a whole is positively affected by ICT in the universities of Kurdistan, especially in planning, recruitment, training, and performance management, though its adoption remains limited. Overall, ICT is becoming an integral part of everyday business practice, radically changing core HR functions such as recruitment, internal communication, HRIS, employee training, and performance evaluation.

The study by Ateeq et al. 2024) highlights various positive aspects of ICT, such as how IT enhances productivity and improves staff participation, information handling, e-learning, and feedback processes; however, it also addresses challenges like data security breaches and the difficulties some businesses face when adopting new technology. (Puspita, 2024) This research focuses on how Digital Technologies affect three main Human Resource Management functions: recruitment, Employee Development, and Performance Management, and how this, in turn, influences the Employee Experience. So far, digital transformation has had a significant positive impact on organizational productivity by making the workforce more flexible and adaptable. According to Aydin et al. (2024), the following article describes the adoption of modern technologies, such as AI, VR/AR, and the Metaverse, for HR functions, including recruitment, training, onboarding, and virtual collaboration, which has started revealing new trends and opportunities within the HR industry. The article also notes that HR technologies serve to automate tasks, provide analytics data for strategic decision-making, and support HR professionals, all while ensuring security and privacy. Ultimately, digital transformation has become a central theme of contemporary HR Practice.

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Information Technologies (ICT)

Information and data. Another definition of IT highlights the relationship between office automation, communication technologies, and information processing. IT is defined as the technology used in a company to gather, process, generate, and transfer information through various communication channels in order to accomplish organizational objectives. Three key ideas are involved in measuring IT: networks, databases, and software. (Yousifi and Khayyat, 2019)

a. Software can be defined as a series of instructions and programs on a computer to direct the processes involved in performing a particular task. (Prastyaningtyas et al., 2023)

b. Database has been defined as an electronic storage of information that is systematically arranged in a computer system to allow access using the database management system (DBMS). (Prastyaningtyas et al., 2023)

c. **Networks** have been defined as the connection of computers and other devices using communication devices to share data and information. (Prastyaningtyas et al., 2023)

Human Resource Performance

HR performance means that the HR process is effective and efficient in carrying out its human resource responsibilities so as to ensure that the objectives of the business are attained. It is the level at which human resource policies, practices, and processes ensure that the efficiency of employees and the success of the organization increases. One definition of HR performance in the academic context is how well the HR process can perform activities such as recruitment, training, performance appraisal, compensation, good relations management, and talent management to attain organizational objectives and productivity. (JO, 2012, Sutrisno et al., 2023),

Connection Between IT and Performance of HR

IT has a positive influence on the performance of Human Resources since it contributes to the efficiency and effectiveness of HR processes. IT enables automating HR processes, increasing communication efficiency, improving data management capabilities, and facilitating the decision-making process. Implementation of IT technologies, such as HRIS, software, and databases, as well as means of communication, enables HR process automation, such as recruiting, training, evaluating employee performance, and managing employees. Thus, IT increases employee performance, improves HR service quality, and facilitates decision-making. There is much evidence indicating the strong connection between the use of IT technologies and HR performance. (Prastyaningtyas et al., 2023)

Materials and Procedures

The descriptive-analytic method was adopted for this study. This methodology was selected because it is a strong way to discover phenomena and realities consistent with the outcomes and arising from previous studies. The descriptive-analytic method provided rich detail and accuracy in capturing and examining information, both quantitatively and qualitatively, relevant to the study's purposes.

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Study Population and Sample Selection

The study population comprised all employees who were working at the SPU. The researcher will measure the role of implementing information technology in enhancing human resource performance by knowing the level of application of IT at SPU from the viewpoint of its employees and identifying the key principles of IT exercised at the Sulaimani Polytechnic University as seen by its employees. In order to carry out the study and see its impact, a random sample of 148 employees was chosen and asked to fill out a questionnaire.

Instrument of the Study

The primary tool used in this investigation was a questionnaire, which the researchers developed after reviewing earlier research and the theoretical background. It consisted of 24 items divided into three domains: demographic information (4 items), availability of information technology (16 items), and human resources performance (4 items). Then, it was sent to the employees at SPU. The researcher sent questionnaires electronically, and a total of 148 questionnaires were retrieved. In this questionnaire, a five-point Likert scale was applied to measure the second and third parts of the questionnaire, in which the respondent is asked to indicate 'Strongly Agree', 'Agree', 'Neutral', 'Disagree', or 'Strongly Disagree' by ticking a number between 5 and 1.

Measurement of Instrument Validity and Reliability

The 'Validity of the Instrument' involves the degree to which the Instrument measures the construct for which it was designed. This article presents the relationship between information technology and human resource performance at Sulaymaniyah Polytechnic University. The instrument used in this study was developed to evaluate the university's human resources performance, with its final version refined through research and academic journals on the same subject.

An instrument is considered reliable if it consistently produces the same results under the same conditions and when applied to the same sample for which the questionnaire was designed. There are various techniques for measuring reliability, including Spearman-Brown and Gutman, and Cronbach's alpha.

The reliability coefficients for all factors listed are presented in Table 1. The Cronbach's alpha coefficient for all variables is greater than 80%; Kaiser's KMO test is greater than 75%, and the sig. for all variables is equal to .000. The result for all factors, when calculated based on the KMO scale and Cronbach's alpha, is a minimum of 80%.

Table 1: Cronbach's alpha's coefficients and the domains of the study instrument

Variables	No. of items	Kaiser's KMO	Bartlett test		Cronbach's alpha
			Value	Sig.	
Devices and equipment	4	.776	272.639	.000	.855
Software	4	.762	272.639	.000	.866
Network	4	.770	308.113	.000	.866
Database	4	.832	423.960	.000	.914
HR **performance**	4	.761	278.665	.000	.810

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Normality Test

As shown in Table 2, formal normality testing was conducted using both the Kolmogorov-Smirnov and Shapiro-Wilk tests (N = 148), the test results revealed that all evaluated metrics significantly violated the assumption of normality ($p < .05$). Specifically, the distributions for dependent variable HR = 0.95, $p < .001$, and independents variable, Devices = 0.96, $p < .001$, Software = 0.95, $p < .001$, Network = 0.94, $p < .001$, and Database = 0.95, $p < .001$.

Table 2: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
HR	.135	148	.000	.948	148	.000
Devices	.103	148	.001	.957	148	.000
Software	.135	148	.000	.946	148	.000
Network	.140	148	.000	.940	148	.000
Database	.105	148	.000	.946	148	.000

a. Lilliefors Significance Correction

Multicollinearity and Tolerance/VIF tests

Table (3) presents the linear regression analysis evaluating the effects of Devices, Software, Network, and Database infrastructure on HR. The multi-collinearity diagnostics indicated that multicollinearity was not a concern, as all Variance Inflation Factors (VIF) were under the conservative threshold of 5.0 (ranging between 2.71 and 4.90), and all tolerance statistics exceeded 0.20. These results confirm that excessive multicollinearity is not present, validating the independence of the predictors in the model.

Table 3: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.942	.633		1.488	.139		
	Devices	.429	.070	.437	6.151	.000	.370	2.706
	Software	.422	.140	.398	3.012	.003	.223	4.490
	Network	.300	.123	.300	2.437	.017	.204	4.901
	Database	.402	.078	.433	5.156	.000	.264	3.786

a. Dependent Variable: HR

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Demographic analysis of the participants

As shown in Table 4, it is revealed that most of the participants in the research were males (66.2% of the total group). While 33.8% were females. The majority of the members of the sample were in the middle age group, i.e., between 30-49 years, which constituted 112 members or 75.6%. The last age group, i.e., 50 years and above, constituted 20 members or 13.5%. The last group, i.e., Less than 30 years, constituted 10.8% of the members of the sample.

The number of individuals in the age group (10 to 19 years) of work experience was 56.8%, and it represented the largest percentage in the study sample, while individuals in the group of (20 years and more) comprised 24.3% of individuals. The percentage that has less than ten years of work experience is 18.9%. Most of the respondents have a master's degree (60.8%, n=90), followed by a bachelor's (24.3%, n=36), while the lowest is a PhD (14.9%, n=22).

Table 4: Demographic analysis

Variable	Description	Responses	Percentage
Gender	Male	98	66.2
	Female	50	33.8
	Total	148	100.0
Age	Less than 30 years	16	10.8
	30-39	48	32.4
	40-49	64	43.2
	50+	20	13.5
	Total	148	100.0
Years of work experience	Less than 10 years	28	18.9
	10-19 years	84	56.8
	20+	36	24.3
	Total	148	100.0
Academic qualification	Bachelor	36	24.3
	Master	90	60.8
	PHD degree	22	14.9
	Total	148	100.0

Correlation Coefficient Test

Table (5) shows how ICT is correlated with HR Performance through Devices, Software, Network, and Database. The following four IT variables: Devices ($r = 0.752$, $p = 0.001$); Software ($r = 0.760$, $p = 0.001$); Network ($r = 0.767$, $p = 0.001$); Database ($r = 0.758$, $p = 0.001$). This means these results indicate a set of highly significant positive links for all IT variables with HR.

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Table 5: Pearson Inter-Correlations between the variables

		Devices	Software	Network	Database	HR
Devices	Pearson Correlation	1	.755**	.723**	.557**	.752**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	148	148	148	148	148
Software	Pearson Correlation	.755**	1	.826**	.785**	.760**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	148	148	148	148	148
Network	Pearson Correlation	.723**	.826**	1	.826**	.767**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	148	148	148	148	148
Database	Pearson Correlation	.557**	.785**	.826**	1	.758**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	148	148	148	148	148
HR	Pearson Correlation	.752**	.760**	.767**	.758**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	148	148	148	148	148

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

Model summary

According to Table 6, IT variables explain 73.4% of the variance in the HR performance of SPU, while 26.6% of the changes are due to other factors not included in this analysis.

Table 6: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857[a]	.734	.726	2.136

a. Predictors: (Constant), Database, Devices, Software, Network

Analysis of Variance (ANOVA)

This ANOVA table shows the regression model, which is statistically significant ($F(4, 143) = 98.443$, $p < .001$). This means that the predictor variables (Database, Devices, Software, Network) as a group explain a significant amount of the variance in the dependent variable (HR).

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Table 7: Analysis of Variance (ANOVA)

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	1797.284	4	449.321	98.443	.000
Residual	652.689	143	4.564		
Total	2449.973	147			

a.Predictors(constant),Database,Device,Software,Network

b.Dependent Variable:HR

Regression coefficient analysis

These findings relate to the regression analysis process, which revealed that the relationship between IT and HR performance is significant and positive. devices have the strongest standardized effect (Beta = 0.437), followed closely by Database (Beta = 0.433). Software has a moderate standardized effect (Beta = 0.398). Network has the weakest standardized effect among the significant predictors (Beta = 0.300). All the included IT factors (Devices, Software, Network, and Database) have a statistically significant positive relationship with HR.

Table 8: Regression coefficients analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.942	.633		1.488	.139
	Devices	.429	.070	.437	6.151	.000
	Software	.422	.140	.398	3.012	.003
	Network	.300	.123	.300	2.437	.017
	Database	.402	.078	.433	5.156	.000

a. Dependent Variable: HR

Hypothesis tests

According to correlation coefficient analysis based on survey data from employees of SPU, in addition to a comprehensive literature review, the resulting outcomes of the study show that all the hypotheses have been confirmed. Thus, these findings show that enhanced IT has a positive and significant influence on HR performance; in other words, the IT measures taken by the organization exert a significant positive influence on the performance of educational employees within the organization.

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Table -9: Hypothesis Test

	Hypothesis	p-value	Decision
H1	Information Technology has a significant effect on HR performance.	.009	Accepted
H1a	Devices and equipment have positively affected HR performance.	.000	Accepted
H1b	The use of IT software increases HR performance.	.003	Accepted
H1c	Database systems play a crucial role in enhancing HR performance.	.017	Accepted
H1d	Networks have aided in the efficiency of HR performance.	.000	Accepted

Discussions

As stated, Research indicates that Information Technology (IT) is significantly associated with Human Resource (HR) performance at Sulaimani Polytechnic University (SPU), accounting for 73.4% of the variation in HR performance. The results are consistent with previous studies on electronic Human Resource Management and Human Resource Information Systems, which prove that the implementation of information technology increases the efficiency of the HR process and facilitates the decision-making process and administration processes(Kavanagh and Johnson, 2017; Armstrong and Taylor, 2023). This is consistent with findings about e-HRM and HRIS, where IT improves HR administration, efficiency, and decision-making. Among all IT factors, hardware and database systems can be considered to have a significant impact on HR performance since they emphasize the significance of information and technology in HR operations. The results show that a high degree of IT integration improves HR performance and organizational efficiency, which is consistent with earlier research in the fields of higher education and e-HRM. The requirements of universities regarding efficient administration of personnel data can account for the greater impact seen in the case of hardware and databases. The demographic results also make it evident that, in addition to using technological resources, staff members must receive ongoing training and skill development in order for technology to be successfully adopted. This is because staff members' competence is what determines how well technology is used.

Conclusion

Examining the connection between IT and HR performance at Sulaimani Polytechnic University (SPU) is the study's primary aim. The analysis's conclusions show that HR performance and four distinct IT dimensions—hardware, software, networking, and database systems—are positively correlated. Database technology and hardware demonstrated the strongest relationships among the four IT dimensions. Therefore, in this situation, the dependability of the information management system and technology infrastructure is crucial. Furthermore, 73.4% of HR performance is explained by IT, highlighting its importance to HR success. Additionally, the results show that implementing effective IT systems and ensuring that staff members have sufficient IT skills are likely to improve the effectiveness of HR operations. As a result, the aforementioned results contribute to the body of knowledge already available on the topic and offer suggestions to MBA administrators on enhancing HR performance through information technology. Furthermore, more investigation is needed to

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determine other variables that affect HR performance and assess whether raising HR performance can enhance university success.

Recommendation

From this, the following recommendations are made to help develop SPU's IT capability for improving HR performance:

1. Improve institutional IT infrastructure so that SPU can support the needs of its employees with state-of-the-art computing environments, servers, and network infrastructures.
2. Establish an integrated Human Resource Information System for core HR functions like recruitment, attendance, payroll, and performance monitoring to provide the organization with accurate data and a consistently efficient system for the administration of HR tasks.
3. Apply best practices in the management of an organization's database by using secure, structured, digital identifiers for files that can continue to be stored in one place rather than fragmented across different locations or on paper.
4. Secure continuous IT capacity-building training opportunities for HR personnel covering the HR platforms, cybersecurity, analytics, and HR technologies that enable mid-term acquisitions such as AI-enabled HR applications.
5. Create an independent technical support group for the HR department that is responsible for providing IT support, developing and maintaining the HR system, maintaining systems and updating the software in use, and performing all data security protocols.
6. Create an organization-wide culture toward digital transformation by enabling the HR function to transition away from paper-based processes to automated and data-based systems

References

AL-FAOURI, E. H., ABU HUSON, Y., ALJAWARNEH, N. M. & ALQMOOL, T. J. 2024. The role of smart human resource management in the relationship between technology application and innovation performance. *Sustainability,* 16**,** 4747.

AL SAMMAN, A. & AL AATHEM, M. 2020. How Information Technology Affects HR Performance Development in Service Sectors: A Case Study from Bahrain. *International Journal of Innovation, Creativity and Change,* 14**,** 1085-1107.

ALQARNI, K., AGINA, M. F., KHAIRY, H. A., AL-ROMEEDY, B. S., FARRAG, D. A. & ABDALLAH, R. M. 2023. The effect of electronic human resource management systems on sustainable competitive advantages: The roles of sustainable innovation and organizational agility. *Sustainability,* 15**,** 16382.

ALTAF, M., UR REHMAN, A., SANDHU, M. A. & SHAHIDAN, A. N. 2019. Electronic-HRM and Firm Performance: Mediating Role of Information Communication Technology (ICT). *Pakistan Journal of Social Sciences (PJSS),* 39.

ARMSTRONG, M. & TAYLOR, S. 2023. *Armstrong's handbook of human resource management practice: A guide to the theory and practice of people management*, Kogan Page Publishers.

ATEEQ, A., AL-REFAEI, A.-A., ALZORAIKI, M., MILHEM, M. & ALI, S. A. 2024. Digitalization and Its Impact on HRM: Leveraging ICT for Efficient Workforce Management. *The AI Revolution: Driving Business Innovation and Research: Volume 1.* Springer.

AYDIN, O., KARAARSLAN, E. & NARIN, N. G. 2024. Artificial intelligence, vr, ar and metaverse technologies for human resources management. *arXiv preprint arXiv:2406.15383*.

BOURKE, J. & CROWLEY, F. 2015. The role of HRM and ICT complementarities in firm innovation: Evidence from transition economies. *International Journal of Innovation Management,* 19**,** 1550054.

DOI:10.26750
e-ISSN: 2522-7130

HALID, H., YUSOFF, Y. M. & SOMU, H. The relationship between digital human resource management and organizational performance. First ASEAN Business, Environment, and Technology Symposium (ABEATS 2019), 2020. Atlantis Press, 96-99.

JO, A. 2012. The impact of information technology (IT) on human resource management (HRM): Empirical evidence from Nigeria banking sector. Case study of selected banks from Lagos State and Oyo State in South-West Nigeria.

KAVANAGH, M. J. & JOHNSON, R. D. 2017. *Human resource information systems: Basics, applications, and future directions*, Sage Publications.

KOURDA HAYAT, P. T. S. 2021. The Impact of Information and Communication Technologies on the Performance of Human Resources Management and the Mediating Role of Artificial Intelligence.

OEHLHORN, C. E., MAIER, C., LAUMER, S. & WEITZEL, T. 2020. Human resource management and its impact on strategic business-IT alignment: A literature review and avenues for future research. *The Journal of Strategic Information Systems,* 29**,** 101641.

PRASTYANINGTYAS, E. W., AUSAT, A. M. A., MUHAMAD, L. F., WANOF, M. I. & SUHERLAN, S. 2023. The role of information technology in improving human resources career development. *Jurnal Teknologi Dan Sistem Informasi Bisnis,* 5**,** 266-275.

PUSPITA, R. 2024. The influence of digital technology on human resource management practice. *Management Studies and Business Journal (PRODUCTIVITY),* 1.

QATAMIN, L. & ALKOUD, S. 2023. Concept, Theory, and Classification of Electronic-HRM: A Conceptual Study.

SPARROW, P. 2010. *Handbook of international human resource management: Integrating people, process, and context*, John Wiley & Sons.

SPARROW, P., BREWSTER, C. & CHUNG, C. 2016. *Globalizing human resource management*, Routledge.

STACHOVÁ, K., STACHO, Z., ŠAMALÍK, P. & SEKAN, F. 2024. The impact of E-HRM tools on employee engagement. *Administrative Sciences,* 14**,** 303.

SUTRISNO, S., AUSAT, A. M. A., PERMANA, B. & HARAHAP, M. A. K. 2023. Do Information Technology and Human Resources Create Business Performance: A Review. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.,* 8**,** 14.

TURSUNBAYEVA, A. 2019. Human resource technology disruptions and their implications for human resources management in healthcare organizations. *BMC health services research,* 19**,** 268.

TURULJA, L. & BAJGORIC, N. 2018. Information technology, knowledge management and human resource management. *VINE Journal of Information and Knowledge Management Systems,* 48**,** 255-276.

YOUSIFI, D. & KHAYYAT, N. T. 2019. How Information and Communications Technology Affects the Performance of Human Resources Management in the Higher Education? *Ukh Journal of Social Sciences,* 3**,** 36-49.