

# The Impact of Human Resources Technology on Job Satisfaction in Iraqi Government Institutions

أثر تكنولوجيا الموارد البشرية على الرضا الوظيفي في المؤسسات  
الحكومية العراقية

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## Abstract

This research deals with the relationship between human resources technology HRT and the job satisfaction JS of employees at Rasheed and Rafidain Banks in Iraq. The research aims to discover this relationship between variables. We collected the necessary information for the research from secondary sources like books, articles, and scientific dissertations. We collected data from primary sources by distributing 47 questionnaires to employees of Rafidain and Rafidain Banks in Iraq in 2024. The research used two descriptive and inferential methods to analyze the data obtained from the questionnaire. We analyzed the community's characteristics at both the descriptive and analytical levels.



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Statistical methods and tests were used at the inferential level, which included averages, tests, correlation analysis, and multiple linear regression analysis. After analyzing the data and testing the hypotheses, the research results indicate the existence of a statistically significant relationship between HRT and employee JS, in addition to a direct relationship between employee training ET and JS. There is also a statistically significant relationship between developing employee efficiency and their JS in Iraqi banks.

**Keywords:** Human Resources Technology (HRT), Employee Training (ET), Job Satisfaction (JS), Iraqi Government Institutions (IGI)

### **Introduction**

In the era of globalization and rapid technological advancement, human capital is the most important factor for organizations. Human capital is a set of skills, knowledge, and general characteristics of people in an organization that can indicate the ability to do work today and the potential to do it tomorrow. In order to optimally utilize and manage human capital in an organization, the field of personnel affairs has evolved into human resource management. Human resources and management knowledge have emerged as important and competitive assets of the organization today, and human resource managers are aware of the importance of human resources. and will be able to create a competitive advantage for the future of the organization. This shift in mindset has resulted in a greater focus on the importance of human resources, particularly in the development of strategic roles.

The concern for employee JS has taken a significant part of the time of experts and managers, and many efforts have been made to enumerate the factors that affect employee JS so that, with the optimal use of these factors, employee satisfaction and organizational productivity can be increased. Valid evidence shows that managers of organizations may have misconceptions about identifying the factors that increase employee JS and which

are of great importance to them. Human resource technology and its use are the most effective ways to eliminate bottlenecks and difficulties in modern economic, social, and educational development. Effective human resources serve as the foundation for production, construction, growth, and development. This new situation has led to new developments in management, leadership, and resource management methods according to modern techniques and technology, expanding the idea of cooperative management and paying attention to employee behavior, personality, psychological characteristics, experience, and competencies.

The problem of the research consists that human resources armed with modern information technology and its capabilities can play a fundamental role in meeting the needs of government institutions in Iraq. Therefore, institutions must focus on developing, training, and empowering employees and making the most of their capabilities and talents, in addition to attracting and developing experienced and efficient human resources.

The importance of HRT and JS is highlighted in any organization. If it has sufficient motivation, information technology, experience, and job skills, it will undoubtedly use its talents and abilities to achieve the organization's goals. One of the factors that cause interest or lack of interest in a job is JS or job dissatisfaction. JS is a factor that affects the success of the job, increases the efficiency of the individual, and improves production and services.

### **1- literature Review**

The research of Abdelhlim, (2023) aimed to determine the impact of human resources management practices on JS. The research relied on the questionnaire as a primary tool for collecting the necessary data to achieve its goal, as 50 forms were distributed to the heads of scientific departments at the University of Baghdad. The study concluded by identifying the factors that affect JS, such as recruitment, appointment, ET, compensation, incentives, and employee participation.

The study of Boulqroun & Radawi, (2024) examined how information technology affects staff performance in Algeria Telecom's Guelma operational directorate. A directorate staff sample was surveyed to acquire descriptive analytical data. Information technology improves staff production efficiency and work speed, according to the results. Technology improves the workplace and facilitates communication, which boosts worker satisfaction and motivation.

The study of Mahmoud & Fathy, (2024) addressed the impact of using digital technology on the job performance of employees at Fayoum University. The study measured "digital technology" using five dimensions: hardware, software, databases, networks, and human resources. The most important result of the study was the statistically significant impact of digital technology and its dimensions on job performance. The study also found that digital technology contributes to increasing the efficiency of employees.

The study of Madani & Roumisa, (2023) aimed to identify the impact of information and communication technology on JS in the National Retirement Fund in Ouargla. The study found that there is a positive correlation between information technology and JS in the National Retirement Fund.

## **2- Human Resources Technology (HRT)**

Human resources are one of the effective factors in the continuity of institutions, so knowing the needs, motivations, desires, and satisfaction factors is very necessary to adopt the right policies, appropriate strategies, technology, and effective programs (Manca & Delfino, 2021: 1397). Human resource management activities through methods of skill enhancement, motivation enhancement, employee support, career development, job security, and fairness of performance appraisal systems are very important in improving mutual trust between employees and managers (Capelleras et al., 2021: 182). Organizational development is the systematic application of behavioral scientific knowledge to the planned development, strengthening, and focus of organizational strategies, structures, and processes to improve organizational effectiveness.

Technology and its various applications contribute to raising productivity and the rate of achievement among employees by encouraging the employee to focus on performing his tasks instead of following up on his services. The employee spends a long time requesting and following up on the services of the personnel affairs department (Douglas et al., 2022: 572). Technology and HR management systems can help organizations fully implement and comply with labor law provisions and ensure that organization policies are automatically compliant without the need for user or HR employee intervention by integrating correct and approved practices into system processes, in addition to providing more effective solutions for storing files and documents (Kuhn et al., 2021: 13). Human resources management basically consists of two parts: the administrative part, which is related to reviewing employee requests, following up on attendance and departure, preparing payroll, etc., and another strategic part, which focuses on enhancing the recruitment of talents and increasing their productivity, performance, training, integration, and raising the level of JS, in addition to identifying the current and future human resources needs and goals within the organization in order to achieve its goals and linking human resources management with the organization's general strategy and vision (da Silva et al., 2022: 3). Technology has saved HR professionals a lot of time by automating and facilitating administrative tasks, allowing them to focus on more important issues that require more hands-on attention. By streamlining administrative tasks such as hiring, reviewing records, preparing payrolls, and reducing error rates, technology has greatly improved the efficiency and accuracy of HR management (Dhanpat et al., 2020: 4). Technology has transformed the HR professional's role from focusing on basic employee needs such as preparing payrolls and reviewing allowances and vacations to focusing on building an ideal work experience that motivates employees and brings out the best in them. As HR evolves, it has become important to increase and enhance employee engagement and encourage them to do their

best rather than just track their efforts and attendance (Vardarlier, 2020: 243). Technology enables HR professionals to treat employees as vital and crucial resources by focusing on understanding employees' needs, solving their problems, and providing different solutions to save time and increase productivity instead of spending time on monotonous administrative tasks (Kambur & Yildirim, 2023: 425).

### **3- Job Satisfaction (JS)**

Achieving employee satisfaction and retention requires providing a positive work environment, supporting professional and personal growth, and offering material and moral incentives commensurate with the employee's performance and efforts (Nguyen, 2020: 375). One effective way to increase employee satisfaction is to provide ongoing training and development opportunities, enabling employees to improve their skills and gain new knowledge that will advance their careers. Creating a work culture that fosters open communication and transparency between management and employees also helps build trust and increase satisfaction (Akdere & Egan, 2020: 396). The process of managerial awareness and concern for employee satisfaction results in retaining talented employees, and companies should offer competitive incentive programs that include rewards, recognition of efforts, and opportunities for promotion. Listening to employee feedback and meeting their needs also plays a major role in reducing employee turnover and increasing their loyalty to the company (Kumar, 2022: 25). Increasing employee satisfaction and retention depends on providing a supportive work environment, real growth opportunities, and rewards commensurate with effort, which ultimately leads to enhanced productivity and the achievement of the organization's goals (Nazetal.,2020:2). Internal communication in the organization is considered one of the basic factors that greatly affect employee performance and the success of the organization. Effective internal communication contributes to creating a transparent and cooperative work environment where information and ideas are easily exchanged, which enhances team

spirit and reduces misunderstandings and conflicts (Luthfi et al., 2022:96). Empowerment and self-leadership require high organizational skills and a supportive environment, and it is through a sustainable organizational structure that enhances the concept of self-leadership, which gives them freedom, confidence, and the ability to set their priorities and manage their time efficiently, which reduces the need for direct supervision (Klösel, 2022: 265).

Based on the theoretical aspect and literature review, the research hypotheses can be presented as follows:

Ha: HRT Activities Are Related to JS in IGI.

Ha1: ET has a great relationship with their JS in IGI.

Ha2: EDC has a great relationship with their JS in IGI.

#### **4- Methodology**

We collected the required information for the research from secondary sources such as books, articles, scientific dissertations, and the Internet. Primary sources included the use of a questionnaire to collect data. We distributed 47 questionnaires to employees of Rafidain and Rashid Banks in Iraq during 2024. The research used two descriptive and inferential methods to analyze the data obtained from the questionnaire. We analyzed the characteristics of the community, such as abundance, at the descriptive level. We used statistical methods and tests at the inferential level, which included averages, tests, correlation analysis, and multiple linear regression analysis. The descriptive aspect included methods aimed at describing the research conditions or phenomena.

We used the Cronbach's alpha method in this research to determine the test's reliability. We use this method to calculate the internal consistency of measurement tools that measure different characteristics. Calculating the variance in the scores of each subset of the questionnaire questions and the total variance is the first step in calculating the Cronbach's alpha coefficient. Then we calculate the value of the alpha coefficient.

**Table1: Reliability coefficient for Variables**

| No. | Variables | Cronbach's Alpha | Number of Questions |
|-----|-----------|------------------|---------------------|
| 1   | HRT       | 0.827            | 11                  |
| 2   | ET        | 0.905            | 9                   |
| 3   | DEC       | 0.884            | 6                   |
| 4   | JS        | 0.796            | 11                  |

**Source:** researcher, based on the questionnaire analysis.

According to the results of the analysis of Cronbach's alpha reliability coefficients, since the reliability coefficients range from 0.674 to 0.892, it can be said that the questionnaire has a suitable reliability feature. It should be noted that if the entire questionnaire is examined as a single factor, the Cronbach's alpha value is calculated, which is equal to the high value of 0.825, and the reliability coefficient of each of the JS questionnaire is equal to 0.796.

## 5- Results and Discussions

Once we have defined our research methodology and gathered the necessary data to test our hypotheses using the appropriate tools, it's now time to apply the appropriate statistical techniques that align with the research methodology and the variables. Let us analyze the hypotheses and research questions. To arrive at a series of research results and apply them in human life, it is important to understand that these results are the outputs of the research process, which serve to justify and prove the existence of the research.

**Table2: Results of Kolmogorov-Smirnov test for research variables**

| No. | Variables | Significance level | Hypothesis result |
|-----|-----------|--------------------|-------------------|
| 1   | ET        | 088/0              | Normal            |
| 2   | DEC       | 119/0              | Normal            |
| 3   | JS        | 066/0              | Normal            |

**Source:** researcher, based on the questionnaire analysis.

As shown in Table 2, the value of the significance level in all components is higher than the error value of 0.05, so we conclude the null hypothesis, i.e. all research components are normal.

**Table3: Pearson Correlation Coefficients**

| Variables | ET    | DEC   | JS |
|-----------|-------|-------|----|
| ET        |       |       |    |
| DEC       | 0.467 |       |    |
| JS        | 0.760 | 0.715 |    |

**\*\*** All correlation coefficients are significant at an error level of less than one percent.

**Source:** researcher, based on the questionnaire analysis.

**Table4: Validity, Reliability and Descriptive Indicators**

| Variables | AVE   | CR    | ronbach's Alpha | Average | Standard Deviation |
|-----------|-------|-------|-----------------|---------|--------------------|
| ET        | 0.517 | 0.921 | 0.905           | 3.346   | 1.345              |
| DEC       | 0.520 | 0.906 | 0.884           | 3.065   | 1.012              |
| JS        | 0.538 | 0.845 | 0.796           | 2.970   | 1.211              |

**Source:** researcher, based on the questionnaire analysis.

Table 4 above shows the validity, reliability, and descriptive evidence of all the research variables. As well as construct validity, which checks whether the chosen indicators are a good way to measure the constructs, this research also aims for diagnostic validity. This means that the indicators of each construct will eventually be able to correctly tell the other constructs' models apart in terms of how well they measure them. With the help of the Average Variance Extracted (AVE) index, it was found that all the constructs under study had an average variance extracted higher than 0.5. We used Pooled Reliability (CR) and Cronbach's alpha indices to verify the questionnaire's reliability, ensuring that these indicators are reliable above 0.7. All these coefficients are higher than 0.7 and indicate the reliability of the measuring instrument. The last two columns of this table study the descriptive status of the variables in the community. According to the 5-point Likert scale of this research, variables with a mean

of more than 4 can be said to be in an appropriate position, and the sample members' evaluation of this variable is more than average, while indicators with a mean of less than 4 are inappropriate, and it is necessary for the organization to take the necessary measures to develop and improve these indicators. Therefore, we can conclude that this organization's evaluation of all research variables was below average and placed them in an inappropriate context.

## 6- Analysis and testing of research hypotheses

Another type of relationship in a structural equation model is the direct effect relationship. Structured equation models use it to show the direction of two variables. This impact represents the expected linear causal effect of one variable on another. Each direct effect shows the relationship between a dependent variable and an independent variable in the model. Another direct effect's dependent variable can be an independent variable and vice versa. Because the sample size was small and the independent variables were related to each other, structural equation modeling (SEM) with partial least squares (PLS) was used in this study. The PLS estimation approach determines coefficients to make the model most interpretable and explainable, allowing it to predict the final dependent variable with the greatest accuracy and precision. Regression modeling uses the partial least squares method (PLS), a multivariate statistical method, despite limitations such as the unknown distribution of the response variable, a small number of observations, or significant autocorrelation between explanatory variables. We simultaneously model one or more response variables against several explanatory variables. The results of this procedure are as follows:

**Table5: coefficients, result of the research hypothesis**

| Research hypotheses |            | coefficient ( $\beta$ ) | T-test | Significance level | Hypothesis result |
|---------------------|------------|-------------------------|--------|--------------------|-------------------|
| Ha                  | HRT --- JS | 0.927                   | 13.446 | 0.01<              | confirmed         |
| Ha1                 | ET --- JS  | 0.337                   | 7.137  | 0.01<              | confirmed         |

|     |               |       |       |       |           |
|-----|---------------|-------|-------|-------|-----------|
| Ha2 | EDC ---<br>JS | 0.278 | 5.571 | 0.01< | confirmed |
|-----|---------------|-------|-------|-------|-----------|

**Source:** researcher, based on the questionnaire analysis.

1. Main hypothesis: HR technology activities are related to the JS of employees of Al-Rasheed and Al-Rafidain Banks in Iraq. Due to the importance of this hypothesis, according to the multiple regression principle, if at least one of the variables that constitute HR technology activities is able to affect the JS of employees, it can be said that human resources development activities had a significant impact on the JS of employees, given the importance of all dimensions, it can be said that the main hypothesis has been confirmed at a confidence level of 95%, and given the positivity of all transactions of HR activities, it had a positive and meaningful impact on the JS of employees. Also, the correlation coefficient of this variable with the JS of employees is 0.927, which is significant according to the T statistic at an error level of less than 1%. Therefore, it can be said that the growth and increase of HR development activities leads to an increase in the JS of employees, and the lack of growth of HR activities leads to a decrease in the JS of employees.

2. First sub-hypothesis: ET has a significant relationship with their JS. According to the results of the statistical analysis, the effect of ET on employee JS has a path coefficient of 0.337, which has a t value of 7.137. The t value of this parameter (according to the five percent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter) is greater than 1.96. Therefore, it can be said that the null hypothesis is rejected with a confidence level of 95%, in other words, ET has a statistically significant effect on employee JS, and given the positive path coefficient, it can be said that the type of relationship between the two variables is positive and significant. Therefore, at a confidence level of 95%, it is expected that the more attention is paid to ET, the more JS of employees increases in a positive direction. Any weakness or deficiency in ET will lead to job

dissatisfaction among employees. Accordingly, the first sub-hypothesis of the research was accepted.

3. Second sub-hypothesis: Developing employee competencies has a significant relationship with their JS. According to the results of the statistical analysis, the effect of employee competence development on employee JS has a path coefficient of 0.278, which has a t value of 5.571. The t value of this parameter (according to the five percent error rule in the null hypothesis rejection area for values outside the range of 1.96 to -1.96 for each model parameter) is greater than 1.96. Therefore, it can be said that the null hypothesis is rejected with a confidence level of 95%, that is, the development of employee competence has a statistically significant effect on employee JS, and given the positive path coefficient, it can be said that the type of relationship between the two variables is positive and significant. Therefore, at a confidence level of 95%, it is expected that the more attention is paid to employee competence development, the JS of employees will increase in a positive direction. Failure to develop employee competence will lead to job dissatisfaction among employees. Accordingly, the second sub-hypothesis of the research was also accepted.

## 7- Conclusions

This research deals with the relationship between HRT and JS of employees of Al-Rasheed and Al-Rafidain Banks. After analyzing the data and extracting the information obtained through the questionnaire, and testing the research hypotheses, we present and extract the results reached by the research. We present the research results according to the collected data and provide the necessary recommendations.

1. Based on the results obtained from the analysis of statistics and figures, all research hypotheses have been confirmed, and the general result indicates the existence of a statistically significant relationship between HRT and JS of employees in Iraqi banks. Using the Pearson correlation test, the correlation coefficient

between these two variables is 3.528, which indicates the existence of a direct relationship between HRT and employee JS.

2. The first sub-hypothesis: Using the Pearson correlation test, the value of the correlation coefficient between the two variables is 3.137, which indicates the existence of a direct relationship between ET and their JS. Testing the hypotheses using structural equation modeling indicates the existence of a causal relationship between ET and employee JS. Therefore, it can be concluded that the growth and increase of activities related to ET leads to an increase in employee JS. Also, the lack of growth in ET activities reduces their JS. Accordingly, the first sub-hypothesis of the research was verified.

3. Second sub-hypothesis: There is a statistically significant relationship between the development of employee efficiency and JS of employees of Iraqi banks. Using Pearson's correlation test, the value of the correlation coefficient between these two variables is 3.213, which indicates a direct relationship between the development of employee efficiency and their JS. Hypothesis testing using structural equation modeling indicates a causal relationship between the development of employee efficiency and their JS. Therefore, it can be concluded that the growth and increase of activities related to developing employee efficiency leads to an increase in employee JS. Also, the lack of growth in ET activities reduces employee JS. Accordingly, the second sub-hypothesis of the research was verified.

### **Recommendations**

Considering the relationship between HR technology and employee JS, and in order to improve performance and increase employee JS, the following summary of recommendations is presented:

1. Since HR technology acts as a factor influencing employee JS, HR management should consider developing employees' IT skills.
2. HR managers will play a fundamental role in training managers to recognize the benefits of open communication with employees and exchange information with them, and they should provide the

necessary training to develop managers' skills in open communication with employees. In addition to creating a culture in the organization that encourages and motivates behaviors based on training and development in the organization.

3. Creating the necessary motivations and skills for managers to delegate responsibilities to employees effectively is one of the vital duties and roles of HR managers. In addition, developing training and learning skills, planning career path plans, and if possible, career planning for employees, and other programs aimed at developing employee skills and competencies for all employees at all levels of the organizational hierarchy, in addition to. Because of its many benefits to the organization, it also increases employee JS.

## References

1. Manca, S., & Delfino, M. (2021). Adapting educational practices in emergency remote education: Continuity and change from a student perspective. *British Journal of Educational Technology*, 52(4), 1394-1413.
2. Capelleras, J. L., Domi, S., & Belletti, G. (2021). Skill-enhancing human resource practices and firm performance: the mediating role of innovativeness. *Tourism Review*, 76(6), 1279-1296.
3. Abdel hlim, A. R. (2023). The role of organizational behavior in developing the performance of a faculty member. *Journal of the Iraqi University*, 58(2), 663-680.
4. Boulqroun Sofiane, & Radawi Anwar. (2024). The impact of using information technology on the performance of human resources in the organization.
5. Mahmoud Talaba, F., & Fathy. (2024). The impact of using digital technology on the job performance of employees in public universities (an applied study on Fayoum University). *Alexandria Journal of Administrative Research and Information Systems*, 2(2), 32-54.
6. Madani, Mabrouka, Maash, & Roumisa. (2023). The impact of information and communication technology on job satisfaction: a

case study of the National Retirement Fund-Ouargla (Doctoral dissertation, University of Kasdi Merbah-Ouargla).

7. Douglas, S., Merritt, D., Roberts, R., & Watkins, D. (2022). Systemic leadership development: impact on organizational effectiveness. *International Journal of Organizational Analysis*, 30(2), 568-588.

8. Kuhn, K. M., Meijerink, J., & Keegan, A. (2021). Human resource management and the gig economy: Challenges and opportunities at the intersection between organizational HR decision-makers and digital labor platforms. *Research in personnel and human resources management*, 39, 1-46.

9. da Silva, L. B. P., Soltovski, R., Pontes, J., Treinta, F. T., Leitão, P., Mosconi, E., ... & Yoshino, R. T. (2022). Human resources management 4.0: Literature review and trends. *Computers & Industrial Engineering*, 168, 108111.

10. Dhanpat, N., Buthelezi, Z. P., Joe, M. R., Maphela, T. V., & Shongwe, N. (2020). Industry 4.0: The role of human resource professionals. *SA Journal of Human Resource Management*, 18(1), 1-11.

11. Vardarlier, P. (2020). Digital transformation of human resource management: digital applications and strategic tools in HRM. *Digital business strategies in blockchain ecosystems: Transformational design and future of global business*, 239-264.

12. Kambur, E., & Yildirim, T. (2023). From traditional to smart human resources management. *International Journal of Manpower*, 44(3), 422-452.

13. Nguyen, C. (2020). The impact of training and development, job satisfaction and job performance on young employee retention. *Job Satisfaction and Job Performance on Young Employee Retention* (May 1, 2020).

14. Akdere, M., & Egan, T. (2020). Transformational leadership and human resource development: Linking employee learning, job satisfaction, and organizational performance. *Human Resource Development Quarterly*, 31(4), 393-421.

15. Kumar, S. (2022). The impact of talent management practices on employee turnover and retention intentions. *Global Business and Organizational Excellence*, 41(2), 21-34.
16. Naz, S., Li, C., Nisar, Q. A., Khan, M. A. S., Ahmad, N., & Anwar, F. (2020). A study in the relationship between supportive work environment and employee retention: Role of organizational commitment and person–organization fit as mediators. *Sage Open*, 10(2), 2158244020924694.
17. Luthfi, A., Norawati, S., Zulher, Z., & Basem, Z. (2022). The effect of supervision, work motivation, and interpersonal communication on employee performance and organizational commitment as variables intervening. *IJEED (International Journal of Entrepreneurship and Business Development)*, 5(1), 92-104.
18. Klösel, K. (2022). Self-leadership: The power behind empowerment. *Journal of the International Council for Small Business*, 3(4), 262-269.