

**THE ROLE OF INFORMATION TECHNOLOGY IN IMPROVING HUMAN
RESOURCE MANAGEMENT: AN APPLIED STUDY AT FUTURE UNIVERSITY: AN
ANALYTICAL STUDY OF A SAMPLE OF EMPLOYEE AL-MUSTAQBAL
UNIVERSITY**

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ABSTRACT

This research examines the role of information technology in improving human resources management at the College of Administrative Sciences / Future University, by demonstrating the impact of using electronic systems and applications in developing administrative processes related to managing the human element within the organization. The research aimed to identify the level of information technology usage in human resources management, clarify its role in enhancing job performance efficiency and supporting administrative decision-making, as well as identifying the most prominent obstacles limiting its optimal use.

The research adopted the descriptive analytical method in both theoretical and field aspects. A questionnaire was used as the primary data collection tool from a sample of (40) administrative employees at the College of Administrative Sciences / Future University. Data was analyzed using the SPSS V.26 program.

The research reached a set of results, most notably the existence of a positive and effective role for information technology in improving human resources management, particularly in accelerating the completion of administrative transactions, improving job performance efficiency, and supporting the decision-making process. The results also showed some obstacles limiting the optimal use of information technology, most importantly weak training and the high cost of some technical requirements.

The research recommended the need to expand the application of specialized electronic systems, develop the technological infrastructure, and implement continuous training programs for employees to ensure the optimal use of information technology in human resources management.

Keywords: Information Technology, Human Resources Management, Human Resource Information Systems, Job Performance, Administrative Decision-Making.

1. INTRODUCTION

The modern era has witnessed rapid development in the field of information technology, bringing about radical changes in various aspects of life. The field of management has not been far removed from these changes, as organizations today strive to keep pace with this technological development to enhance their efficiency and effectiveness. Human resources management is considered one of the most affected administrative areas by this development, having shifted from traditional methods of handling employee affairs to integrated electronic systems aimed at raising performance efficiency, improving data accuracy, accelerating procedures, and supporting the

decision-making process.

In light of these changes, the need has emerged to study the role of information technology in improving human resources management, especially in educational institutions that increasingly rely on qualified human competencies to achieve their strategic goals. The College of Administrative Sciences / Future University represents a model of such institutions that seek to adopt modern electronic systems in managing their employee affairs, which necessitates examining the reality of using this technology, the extent of its contribution to improving administrative performance, and identifying the obstacles that may limit its optimal utilization.

This research stems from the importance of highlighting the integrative relationship between information technology and human resources management, attempting to provide a scientific framework that contributes to understanding and better employing this relationship in the academic environment. The research has been divided into five chapters; the first addresses the research methodology, the second the theoretical framework of the research variables, the third the field study methodology, the fourth data analysis and hypothesis testing, and the fifth conclusions, recommendations, and proposals.

The research also adopted the descriptive analytical method, using the questionnaire as the main tool for collecting data from a sample of administrative employees at the college. Data was analyzed using the SPSS statistical program to achieve objective results that help the institution develop its practices in the field of human resources management using information technology.

2. CHAPTER ONE: RESEARCH METHODOLOGY

2.1 Preamble

This chapter represents the methodological foundation upon which the research is based, as it addresses the research problem, significance, objectives, as well as the adopted methodology, study limits, data collection tools, and the research structure. This chapter aims to establish a clear scientific framework for studying the role of information technology in improving human resources management, contributing to an organized understanding of the topic's dimensions.

2.2 First: Research Problem

In recent years, organizations have witnessed rapid developments due to significant advancements in information technology, which has directly reflected on various administrative functions, especially human resources management, which increasingly relies on electronic systems to perform its tasks.

Despite this development, many organizations still suffer from limited utilization of information technology in managing their human resources, whether in terms of data organization, employee skill development, or improving recruitment and evaluation processes. This leads to weak performance efficiency and suboptimal exploitation of available capabilities.

Accordingly, the research problem lies in the following main question: **What is the role of information technology in improving human resources management?**

Several sub-questions branch from this main question, including:

1. What is the extent of information technology usage in human resources management?
2. What is the importance of information technology in developing administrative performance?
3. How does information technology contribute to improving employee efficiency?

2.3 Second: Research Significance

The significance of this research stems from addressing a contemporary topic that combines information technology and human resources management, both of which are fundamental pillars for the success of modern organizations.

The significance also lies in highlighting the role of information technology in improving the efficiency of administrative work by facilitating procedures, organizing information, and supporting the decision-making process. Additionally, the research emphasizes the importance of human resources as the vital element in the organization, necessitating their management using modern methods aligned with technological development.

This research also contributes to providing a scientific vision that helps organizations, especially educational institutions, utilize information technology in developing human resources management and improving performance levels.

2.4 Third: Research Objectives

This research seeks to achieve a set of objectives, summarized as follows:

1. Identify the concept of information technology and its importance in administrative work.
2. Clarify the concept of human resources management and its main functions.
3. Explain the role of information technology in improving human resources management.
4. Demonstrate the impact of technology use on developing employee performance within the organization.
5. Reach a set of recommendations that contribute to improving administrative practices.

2.5 Fourth: Research Methodology

The research adopted the descriptive analytical method, as it is one of the most suitable methodologies for studying and analyzing administrative and human phenomena in their actual reality, combining theoretical description of variables and analysis of related field data in a systematic scientific manner.

This method was used in the theoretical aspect to clarify concepts related to information technology and human resources management, and in the practical aspect to analyze the opinions of sample members regarding the role of information technology in improving human resources management using appropriate statistical methods.

2.6 Fifth: Research Limits

The research limits are represented in the following aspects:

- **Spatial Limits:** Future University / College of Administrative Sciences.
- **Temporal Limits:** (2025–2026).
- **Human Limits:** Employees and teaching staff working at the college.

2.7 Sixth: Data Collection Tools

The research relied on a set of tools for collecting data and information, represented by:

1. Theoretical sources including scientific books and Arab and foreign references related to information technology and human resources management.
2. Previous research and studies published in peer-reviewed scientific journals relevant to the research topic.
3. The questionnaire as a primary tool in the field aspect, prepared and distributed to the study sample members to collect data related to the research variables.
4. The SPSS V.26 statistical analysis program for analyzing field data and extracting necessary statistical results.

2.8 Study Hypotheses

Based on the study problem and objectives, the following hypotheses were formulated:

1. **There is a statistically significant relationship between the use of information technology and the improvement of human resources management.**
2. **Information technology contributes to raising employee job performance efficiency.**
3. **Information technology positively influences supporting administrative decision-making.**
4. **There are obstacles that limit the optimal use of information technology in human resources management.**

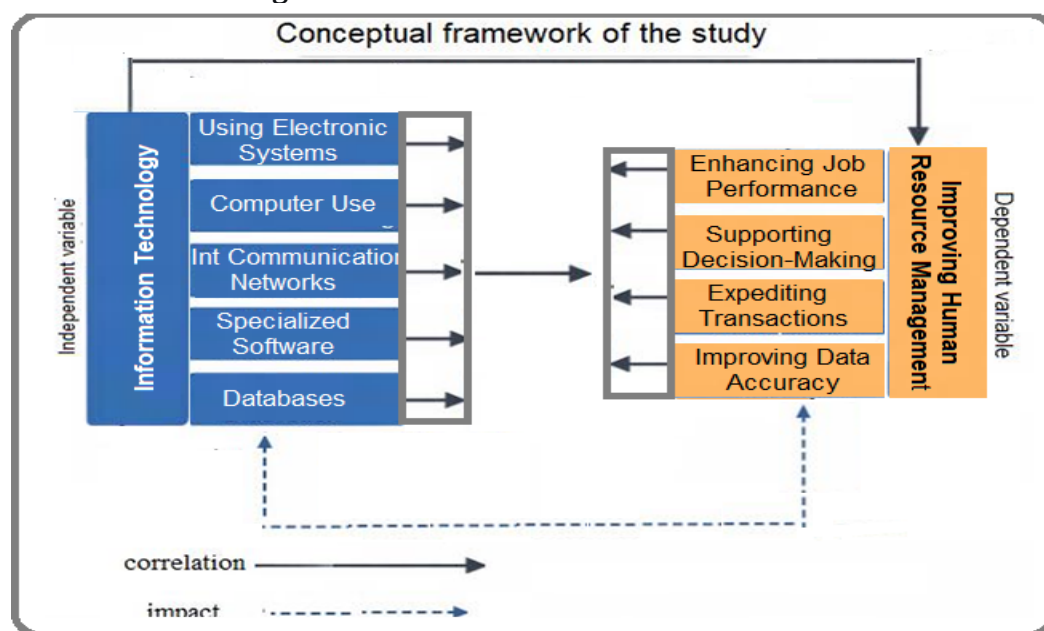


Figure (1) Conceptual framework of the study

2.9 Seventh: Research Structure

This research consists of five interconnected chapters, as follows:

- **Chapter One:** Research Methodology, includes the research problem, significance, objectives, hypotheses, methodology, limits, data collection tools, and research structure.
- **Chapter Two:** Theoretical Framework, addresses the basic concepts of information technology, human resources management, and the relationship between them.
- **Chapter Three:** Field Study Methodology, includes the study population, sample, study tool, its validity and reliability, and the statistical methods used.
- **Chapter Four:** Data Analysis and Hypothesis Testing, includes presenting and analyzing the questionnaire results and statistically testing the research hypotheses.
- **Chapter Five:** Conclusions, Recommendations, and Proposals, includes the most prominent findings of the research and future recommendations.

3. CHAPTER TWO: THEORETICAL FRAMEWORK

3.1 Section One: Information Technology

3.1.1 First: Concept of Information Technology

Information technology is considered a modern concept associated with rapid technological development in various fields, referring to the use of modern technical means in collecting, processing, storing, and retrieving data, contributing to supporting administrative activities and decision-making (Al-Najjar, 2016: 25).

Information technology is also defined as a set of technical tools and means, including computers, software, and communication networks, used in processing information and converting it into a useful form that helps achieve organizational goals (Al-Taie, 2018: 41).

Some researchers believe that information technology represents an integrated system comprising human, technical, and organizational resources, aiming to produce accurate and reliable information used to support various administrative processes (Al-Salmi, 2017: 33).

3.1.2 Second: Importance of Information Technology

Information technology gains great importance in modern organizations due to its role in accelerating work completion and reducing time and effort, leading to enhanced performance efficiency and improved productivity (Abdulrahman, 2019: 52).

Information technology also contributes to improving the quality of information available to management by providing accurate and updated data that helps in making administrative decisions more efficiently and objectively (Al-Ali, 2020: 67).

The importance of information technology also emerges in enhancing the competitiveness of organizations, as it helps develop services and improve communication methods and interaction with customers, leading to their satisfaction and increased loyalty (Khalil, 2018: 88).

3.1.3 Third: Components of Information Technology

Information technology consists of a set of interconnected elements working together to achieve the goals of the information system. The most important of these components are:

1. **Hardware:** Includes all physical equipment used in data processing, such as computers and input/output devices, representing the basic structure of any information system (Al-Najjar, 2016: 60).
2. **Software:** Represents the programs and applications used to operate the computer and perform various processes, whether operating systems or application programs serving administrative work purposes (Al-Taie, 2018: 75).
3. **Databases:** Considered one of the most important components of information technology, used to store and organize data in a way that facilitates retrieval and use in decision-making (Al-Salmi, 2017: 91).
4. **Communication Networks:** Include means of connecting different devices, allowing data and information exchange quickly and efficiently inside and outside the organization (Al-Ali, 2020: 102).
5. **Human Resources:** Represented by individuals who operate and manage information systems, considered one of the most important elements for the success of information technology within the organization (Abdulrahman, 2019: 74).

3.1.4 Fourth: Characteristics of Information Technology

Information technology is distinguished by a set of characteristics that have made it an essential element in modern organizations, most notably:

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- High speed in data processing, helping to complete tasks in record time compared to traditional methods (Khalil, 2018: 112).
 - Accuracy in information processing, reducing human errors resulting from manual operations, leading to improved quality of results (Al-Najjar, 2016: 83).
 - Flexibility, as systems can be easily modified and updated to keep pace with changes in the work environment and organizational requirements (Al-Salmi, 2017: 120).
 - The ability to store large amounts of data and retrieve it quickly, contributing to supporting administrative work and decision-making (Al-Ali, 2020: 115).

3.2 Section Two: Human Resources Management

3.2.1 First: Concept of Human Resources Management

Human resources management is considered one of the most important administrative functions concerned with organizing employee affairs within the organization, focusing on attracting individuals, developing their skills, and motivating them to achieve organizational goals efficiently and effectively (Al-Taie, 2018: 133).

Human resources management is also defined as the set of activities and policies concerned with managing the human element within the organization, starting from human resource planning and recruitment, through training and development, to performance evaluation and motivation (Abdel-Baqi, 2017: 22).

Some researchers believe that human resources management represents an integrated system aimed at the optimal utilization of human resources by achieving a balance between organizational goals and employee needs (Al-Salami, 2016: 45).

3.2.2 Second: Importance of Human Resources Management

The importance of human resources management stems from its responsibility for managing the most important resource in the organization, which is the human resource, considered the foundation for the success of any institution and achieving its goals (Abdulrahman, 2019: 90).

Human resources management also contributes to raising performance efficiency by developing employee skills and increasing their productivity, leading to an improvement in the organization's overall performance level (Al-Ali, 2020: 121).

Its importance also lies in achieving job stability by improving the work environment and providing appropriate incentives, which increases employee satisfaction and reduces turnover rates (Khalil, 2018: 140).

3.2.3 Third: Objectives of Human Resources Management

Human resources management aims to achieve a set of objectives that support organizational success, most notably attracting suitable human competencies and developing them in line with work requirements (Abdel-Baqi, 2017: 30).

It also seeks to improve employee performance through continuous training and providing a suitable work environment that fosters creativity and innovation (Al-Salami, 2016: 60).

Among its objectives is also achieving organizational justice among employees and enhancing the spirit of cooperation and belonging, contributing to achieving stability within the organization (Al-Taie, 2018: 150).

3.2.4 Fourth: Functions of Human Resources Management

Human resources management includes a set of basic functions aimed at managing the human element efficiently, the most important of which are:

1. **Human Resource Planning:** Means determining the organization's workforce needs in terms of quantity and type, and working to provide them at the right time to achieve organizational goals (Abdulrahman, 2019: 102).
2. **Recruitment and Staffing:** This function involves attracting and selecting qualified individuals for vacant positions, ensuring the selection of the best competencies (Al-Ali, 2020: 135).
3. **Training and Development:** Aims to develop employee skills and raise their efficiency in line with modern developments, contributing to improving job performance (Khalil, 2018: 155).
4. **Performance Appraisal:** Concerned with measuring employee performance periodically and identifying their strengths and weaknesses to improve performance (Al-Salami, 2016: 88).
5. **Incentives and Compensation:** Includes designing a wage and reward system that motivates employees and increases their job satisfaction (Al-Taie, 2018: 172).

3.2.5 Fifth: Challenges Facing Human Resources Management

Human resources management faces a set of challenges in light of rapid changes in the work environment, most notably rapid technological development that requires continuously updating employee skills (Abdel-Baqi, 2017: 75).

Challenges also include intense competition among organizations to attract human competencies, requiring the development of effective strategies for employee retention (Al-Ali, 2020: 160).

Challenges also include economic and regulatory changes affecting the nature of work, necessitating flexibility in human resources management policies (Abdulrahman, 2019: 118).

3.2.6 Sixth: The Relationship between Human Resources Management and Information Technology

There has become a close relationship between human resources management and information technology, as electronic systems contribute to facilitating administrative processes such as recruitment, training, and performance appraisal (Al-Salami, 2016: 110).

Information technology also helps improve data accuracy and speed of access, supporting better and more efficient administrative decision-making (Khalil, 2018: 180).

It also contributes to developing electronic human resource systems (HRIS), which organize and analyze employee information, thereby improving the efficiency of human resources management within the organization (Al-Taie, 2018: 190).

3.3 Section Three: The Role of Information Technology in Improving Human Resources Management

3.3.1 First: Role of Information Technology in Developing Human Resources Management Functions

Information technology has played an important role in developing human resources management functions, helping to transform traditional processes into electronic systems that rely on speed and accuracy in accomplishing various administrative tasks (Al-Najjar, 2016: 140).

It has also contributed to improving recruitment processes through the use of electronic systems that allow job advertising, receiving applications, and automated sorting, saving time and effort and increasing the accuracy of selecting suitable competencies (Al-Taie, 2018: 210).

It has also helped develop E-learning programs, enabling employees to acquire modern skills and knowledge without the need for direct attendance, thereby enhancing human resource efficiency (Abdulrahman, 2019: 165).

3.3.2 Second: Role of Information Technology in Improving Job Performance Efficiency

Information technology contributes to raising job performance efficiency by providing accurate and fast information that helps employees perform their work with high efficiency (Al-Ali, 2020: 175).

It also helps reduce human errors resulting from manual operations by relying on electronic systems characterized by accuracy and speed in data processing (Khalil, 2018: 200).

It also leads to improved coordination and communication among employees within the organization through the use of modern communication means such as email and electronic management systems, contributing to a better work environment (Al-Salmi, 2017: 150).

3.3.3 Third: Role of Information Technology in Supporting Decision-Making

Information technology is considered an essential tool in supporting decision-making within organizations, as it provides integrated databases containing accurate information that helps management analyze alternatives and choose the most appropriate decision (Abdel-Baqi, 2017: 120).

Management information systems also help analyze employee data, such as performance, absenteeism, and productivity, enabling management to make decisions based on scientific foundations (Al-Taie, 2018: 225).

They also contribute to providing immediate reports that help decision-makers respond quickly to changes in the work environment, thereby enhancing management efficiency (Al-Ali, 2020: 190).

3.3.4 Fourth: Role of Human Resource Information Systems (HRIS)

Human Resource Information Systems (HRIS) are considered among the most important applications of information technology in this field, as they work to store, organize, and analyze employee data within the organization (Al-Salami, 2016: 135).

These systems also help automate many processes such as payroll, attendance, and performance appraisal, reducing administrative effort and raising work efficiency (Khalil, 2018: 215).

HRIS systems contribute to providing an integrated database about employees, helping in human resource planning and making strategic decisions (Abdulrahman, 2019: 182).

3.3.5 Fifth: Impact of Information Technology on Improving Organizational Performance

The use of information technology leads to improved organizational performance by increasing productivity and reducing operational costs, as a result of relying on electronic systems instead of traditional methods (Al-Najjar, 2016: 160).

It also contributes to improving the quality of services provided by accelerating procedures and providing more accurate and flexible services, thereby enhancing beneficiary satisfaction (Al-Ali, 2020: 210).

It also helps achieve integration between different departments of the organization, leading to improved coordination and effective information exchange, thus raising overall performance efficiency (Al-Salmi, 2017: 170).

3.3.6 Sixth: Challenges Associated with Using Information Technology in Human Resources Management

Despite the importance of information technology, its use faces some challenges, most notably the high costs of implementing modern systems, which may burden some organizations (Abdel-Baqi, 2017: 140).

Challenges also include the need to train employees to use technological systems, as some individuals may face difficulty adapting to modern technologies (Khalil, 2018: 230).

Challenges also include information security risks, such as data breaches or loss, necessitating advanced protection systems to ensure information confidentiality (Al-Taie, 2018: 240).

4. CHAPTER THREE: FIELD STUDY METHODOLOGY

This chapter presents the field methodology adopted by the researcher in studying the role of information technology in improving human resources management, by explaining the study methodology, population, sample, data collection tool, and statistical methods used in data analysis. This chapter aims to clarify the scientific procedures followed to reach accurate and objective results that serve the research objectives.

4.1 First: Field Study Methodology

In the practical aspect of the study, the researcher adopted the descriptive analytical method, as it is the most suitable methodology for studying and analyzing administrative and human phenomena in their actual reality, as it allows collecting data on the opinions of sample members regarding the role of information technology in improving human resources management, and then analyzing it statistically and drawing conclusions.

4.2 Second: Study Population

The study population consisted of administrative employees working at the College of Administrative Sciences / Future University, as they are the category most related to the study topic and most capable of evaluating the level of information technology use in human resources management within the institution.

4.3 Third: Study Sample

The researcher used the purposive sampling method to select study participants, where the questionnaire was distributed to a sample of (40) administrative employees working at the College of Administrative Sciences / Future University. All questionnaires were retrieved and were valid for statistical analysis, with a response rate of (100%).

4.4 Fourth: Study Tool

The researcher relied on the questionnaire as the primary data collection tool, due to its suitability for the nature and objectives of the study. The questionnaire was designed based on the literature and previous studies related to the research topic.

The questionnaire included two main sections:

Section One: Demographic Data included:

- Gender
- Age
- Educational Qualification
- Years of Service

Section Two: Study Axes included (20) items distributed across four main axes:

No.	Axis	Number of Items
1	Reality of Information Technology Use	5
2	Role of Technology in Improving Human Resource Efficiency	5

No.	Axis	Number of Items
3	Role of Technology in Supporting Decision-Making	5
4	Obstacles to Using Information Technology	5

Source: Prepared by the researcher based on SPSS V.26 outputs.

4.5 Fifth: Study Scale

The researcher used the three-point Likert scale to measure the responses of sample members, as follows:

Option	Weight
Agree	3
Neutral	2
Disagree	1

4.6 Sixth: Validity and Reliability of the Study Tool

1. **Face Validity:** The questionnaire was presented to a group of specialists in management, measurement, and evaluation to ensure the suitability of the items for the study objectives. Their observations were considered and necessary modifications were made.
2. **Tool Reliability:** The reliability of the questionnaire was verified using Cronbach's Alpha coefficient. The total reliability coefficient value for the questionnaire was (0.87), which is a high percentage indicating that the tool possesses a high degree of reliability and dependability.

4.7 Seventh: Statistical Methods Used

Study data were analyzed using SPSS version 26, and the following statistical methods were used:

1. Frequencies and percentages to describe sample characteristics.
2. Arithmetic mean and standard deviation to analyze questionnaire items.
3. One-sample T-Test to test the study hypotheses.
4. Cronbach's Alpha coefficient to measure reliability.

4.8 Eighth: Study Hypotheses

Based on the study problem and objectives, the following hypotheses were formulated:

1. There is a statistically significant relationship between the use of information technology and the improvement of human resources management.
2. Information technology contributes to raising employee job performance efficiency.
3. Information technology positively influences supporting administrative decision-making.
4. There are obstacles that limit the optimal use of information technology in human resources management.

5. CHAPTER FOUR: DATA ANALYSIS AND HYPOTHESIS TESTING

This chapter presents and analyzes the field data collected from the study sample members using SPSS V26, aiming to identify the trends of sample members towards the study variables and test

its hypotheses.

5.1 First: Descriptive Analysis of the Demographic Characteristics of the Study Sample**Table (5-1) Distribution of Sample Members by Gender**

Gender	Frequency	Percentage
Male	24	60%
Female	16	40%
Total	40	100%

Source: Prepared by the researcher based on SPSS V.26 outputs.

Table (5-2) Distribution of Sample Members by Age

Age	Frequency	Percentage
Less than 30 years	8	20%
30–40 years	14	35%
41–50 years	12	30%
More than 50 years	6	15%
Total	40	100%

Source: Prepared by the researcher based on SPSS V.26 outputs.

Table (5-3) Distribution of Sample Members by Educational Qualification

Educational Qualification	Frequency	Percentage
Diploma	6	15%
Bachelor's	22	55%
Master's	9	22.5%
PhD	3	7.5%
Total	40	100%

Source: Prepared by the researcher based on SPSS V.26 outputs.

Table (5-4) Distribution of Sample Members by Years of Service

Years of Service	Frequency	Percentage
Less than 5 years	10	25%
5–10 years	15	37.5%
11–15 years	9	22.5%
More than 15 years	6	15%
Total	40	100%

Source: Prepared by the researcher based on SPSS V.26 outputs.

5.2 Second: Analysis of the Questionnaire Axes

5.2.1 Axis One: Reality of Information Technology Use in the Institution

Table (5-5) Results of Analyzing the Items of the Axis "Reality of Information Technology Use"

No.	Item	Mean	Standard Deviation	Response Level
1	The institution relies on electronic systems for managing employee data	2.68	0.52	High
2	Computers are continuously used to accomplish HR tasks	2.75	0.44	High
3	An internal communication network is available to facilitate information exchange between departments	2.41	0.61	Medium
4	The institution uses specialized software for HR management	2.33	0.67	Medium
5	Employee databases are updated periodically	2.55	0.59	High
Overall Average	—	2.54	0.57	High

Source: Prepared by the researcher based on SPSS V.26 outputs.

Interpretation of Results: The results indicate that the level of information technology use at the

College of Administrative Sciences was generally high, with an overall mean of (2.54). This reflects a clear reliance on technological methods in performing HR tasks, while there are still some aspects needing development, particularly concerning the use of specialized software.

5.2.2 Axis Two: Role of Information Technology in Improving Human Resource Efficiency

Table (5-6) Results of Analyzing the Items of the Axis "Improving Human Resource Efficiency"

No.	Item	Mean	Standard Deviation	Response Level
1	IT contributes to speeding up employee transaction processing	2.71	0.46	High
2	Technology helps reduce administrative errors	2.60	0.55	High
3	Electronic systems contribute to improving the accuracy of job performance evaluation	2.32	0.66	Medium
4	Technology helps facilitate recruitment and staffing processes	2.28	0.70	Medium
5	Contributes to improving the tracking of employee attendance	2.80	0.41	High
Overall Average	—	2.54	0.56	High

Source: Prepared by the researcher based on SPSS V.26 outputs.

Interpretation of Results: Sample members agree on the existence of a positive role for IT in improving the efficiency of HR management, especially in speeding up administrative procedures and tracking attendance. Responses were medium regarding its use in recruitment and performance evaluation, indicating that some electronic HR applications are still relatively limited.

5.2.3 Axis Three: Role of Information Technology in Supporting Decision-Making

Table (5-7) Results of Analyzing the Items of the Axis "Supporting Decision-Making"

No.	Item	Mean	Standard Deviation	Response Level
1	Electronic systems provide accurate information that helps management in decision-making	2.63	0.50	High

No.	Item	Mean	Standard Deviation	Response Level
2	Databases contribute to improving HR planning	2.49	0.61	Medium
3	Electronic reports help track employee performance	2.58	0.57	High
4	Technology enables management to respond quickly to administrative problems	2.37	0.65	Medium
5	IT contributes to raising the efficiency of decisions related to employees	2.55	0.54	High
Overall Average	—	2.52	0.57	High

Source: Prepared by the researcher based on SPSS V.26 outputs.

Interpretation of Results: IT plays an important role in supporting administrative decision-making within the college by providing accurate data and immediate reports. However, the speed of response to administrative problems still needs further technical and organizational development.

5.2.4 Axis Four: Obstacles to Using Information Technology

Table (5-8) Results of Analyzing the Items of the Axis "Obstacles"

No.	Item	Mean	Standard Deviation	Response Level
1	High costs of electronic systems limit their use	2.40	0.63	Medium
2	There is a lack of employee training on using modern technology	2.61	0.56	High
3	The institution faces technical problems that hinder the use of electronic systems	2.18	0.71	Medium
4	There is resistance from some	2.05	0.68	Medium

No.	Item	Mean	Standard Deviation	Response Level
	employees towards using technology			
5	There are concerns regarding the security and confidentiality of electronic information	2.47	0.60	Medium
Overall Average	—	2.34	0.64	Medium

Source: Prepared by the researcher based on SPSS V.26 outputs.

Interpretation of Results: Obstacles to using IT were at a medium level. Lack of employee training is the most prominent obstacle, while employee resistance to technology was the least influential, indicating general acceptance of the electronic transition within the institution.

5.3 Third: Testing the Study Hypotheses

Table (5-9) Testing Study Hypotheses using One Sample T-Test

Hypothesis	Arithmetic Mean	Calculated T	Sig.	Result
There is a relationship between IT use and improving HR management	2.54	9.82	0.000	Accepted
IT contributes to raising job performance efficiency	2.54	8.94	0.000	Accepted
IT positively influences supporting administrative decision-making	2.52	8.41	0.000	Accepted
There are obstacles limiting the optimal use of technology	2.34	5.77	0.000	Accepted

Source: Prepared by the researcher based on SPSS V.26 outputs.

Interpretation of Hypothesis Testing: The T-Test results indicate the acceptance of all study hypotheses at a significance level of (0.05), as the statistical significance values for all axes were less than (0.05). This indicates a significant impact of IT on improving HR management, as well as the presence of medium-level obstacles limiting the optimal use of this technology within the institution.

6. CONCLUSIONS, RECOMMENDATIONS, AND PROPOSALS

6.1 First: Conclusions

In light of the theoretical and field study results, a set of main conclusions can be drawn, as follows:

1. It was found that the College of Administrative Sciences / Future University relies to a good degree on IT in HR management, reflecting the institution's orientation towards adopting modern administrative methods.
2. The study results showed that IT use has clearly contributed to speeding up the completion of administrative transactions related to employees and reducing the time and effort spent on performing tasks.
3. It was proven that IT has a positive role in raising job performance efficiency by improving attendance tracking and organizing employee data more accurately.
4. The results revealed that electronic systems contribute to supporting administrative decision-making by providing accurate information and reports that help management in planning and making appropriate decisions.
5. The study clarified that the use of specialized software in HR management is still below the desired level compared to the use of general technical means.
6. It was found that there are obstacles limiting the optimal use of IT, represented mainly by weak training on modern systems and high some operational and technical costs.
7. The results showed that employees possess an acceptable degree of acceptance for using modern technology, which forms a suitable environment for expanding digital transformation in the future.

6.2 Second: Recommendations

Based on the study results, the researcher recommends the following:

1. The need to expand the use of specialized electronic systems for HR management within the institution to ensure improved efficiency of administrative processes.
2. Work on developing the technological infrastructure in the college by continuously updating hardware, networks, and databases.
3. Organizing periodic training programs for employees to enhance their skills in using modern IT systems and applications.
4. Enhancing the use of Human Resource Information Systems (HRIS) in recruitment, evaluation, and career planning.
5. Providing advanced information protection and security systems to maintain the confidentiality of employee data and ensure the safety of electronic databases.
6. Encouraging top management to adopt digital transformation strategies in various administrative activities within the institution.
7. Allocating appropriate financial budgets to support the development and continuous updating of electronic systems.

6.3 Third: Proposals

The researcher suggests conducting future studies that address the topic from different angles, most notably:

1. Conducting a comparative study between public and private universities regarding the extent of IT use in HR management.
2. Studying the impact of Human Resource Information Systems (HRIS) on improving institutional performance within Iraqi universities.

3. Researching the relationship between digital transformation and job satisfaction among employees in higher education institutions.
4. Studying the role of artificial intelligence in developing HR management within academic institutions.
5. Conducting future research using larger samples and different communities to verify the results of the current study and generalize them.

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