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Modern Information Technology and its Role in Improving the Effectiveness of the Hotel Organization - A Field Study at Grand Millennium Sulaimani Hotel

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ABSTRACT

This research aims to determine the impact of modern information technology and its role in improving the effectiveness of the organization. Grand Millennium Sulaimani Hotel was chosen to conduct the field study to diagnose the reality of the use of modern information technology and the extent of its impact in improving the organization's effectiveness and excellence. The study was applied to a sample of employees at organization researched consisting of 60 faculty members. A person was chosen randomly. The questionnaire was used as the main tool to collect the necessary data and information. The study can prove the validity of the hypothesis that indicates the existence of a relationship and impact between the two variables. The study showed that the impact of modern information technology on the effectiveness of the organization was strong, thus there is a logical justification for accepting the main research hypotheses.

To achieve this goal, the dimensions of the independent variable modern information technology were adopted, represented by (hardware and equipment, software, communication networks, databases, and human skills), and the dimensions of the organization's effectiveness were adopted, represented by (job satisfaction, productivity, achieving goals). The research included: The following topics: -

The first domain: Research methodology.

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The second domain: A conceptual framework for modern information technology.

The third domain: A conceptual framework for improving the effectiveness of the organization.

Fourth domain: The practical aspect.

The fifth domain: Conclusions and proposals.

Introduction:

When the world is witnessing a process of rapid development in organizations' need for information, whether in terms of quantity, quality, or speed in obtaining information to make the best decisions and document the relationship of these facilities with their surrounding environment, the increasing role of modern information technology and its impact is evident. It greatly increases the effectiveness of organizations, whether in terms of form and structure, or on the other hand by providing some options to improve and continue the performance of organizations. The application of modern information technologyimproves the ability of organizations to innovate and increase the efficiency of their operational processes and strategies and the effectiveness of their administrative and production processes.

Modern information technology has enhanced the competitive value of organizations through its various applications that have led to changing jobs and work relationships inside and outside the organization,as it contributes directly and indirectly to increasing innovation and creativity processes and raising performance.

The first domain: Research methodology

There is a group of scientific methods that are used in studying social, and economic phenomena. The(descriptive-analytical) method was chosen, as the theoretical framework was adopted to describe the phenomenon so that the role of the applied framework comes in analyzing the study variables.

First: The research problem:

Iraqi organizations confront a real problem represented by the limited application of modern information technology and effective use of it in their departments. According to this perspective, the research problem revolved around raising the following questions:

1. Is the researched university interested in modern information technology?
2. Is the organization's effectiveness linked to the use of modern information technology?
3. To what extent is modern information technology used and its role in improving the organizational performance of the organization under investigation?
4. To what extent does information technology contribute to raising the competitive position of organization under study?
5. Is there a clear perception among the organization under study about the concept of modern information technology and the effectiveness of the organization?
6. What is the nature of the relationship or impact between modern information technology and the effectiveness of the organization?
7. Is there a discrepancy in the respondents' answers about modern information technology and the effectiveness of the organization?

Second: The research importance:

1. **Scientific importance:** It is demonstrated by what the answers to the questions of the theoretical research problem will reveal, as it will provide a theoretical framework that is considered a modest contribution to be added to the knowledge regarding the variables of the study.
2. **Field importance:** It is reflected through the application of theoretical concepts and ideas for study in the field of work, as well as testing the impact relationship between the dimensions of modern information technology and the effectiveness of the organization to determine the extent of its significance statistically, through which the management of the researched organization can adopt the dimensions of modern information technology to help it improve the performance of human resources.

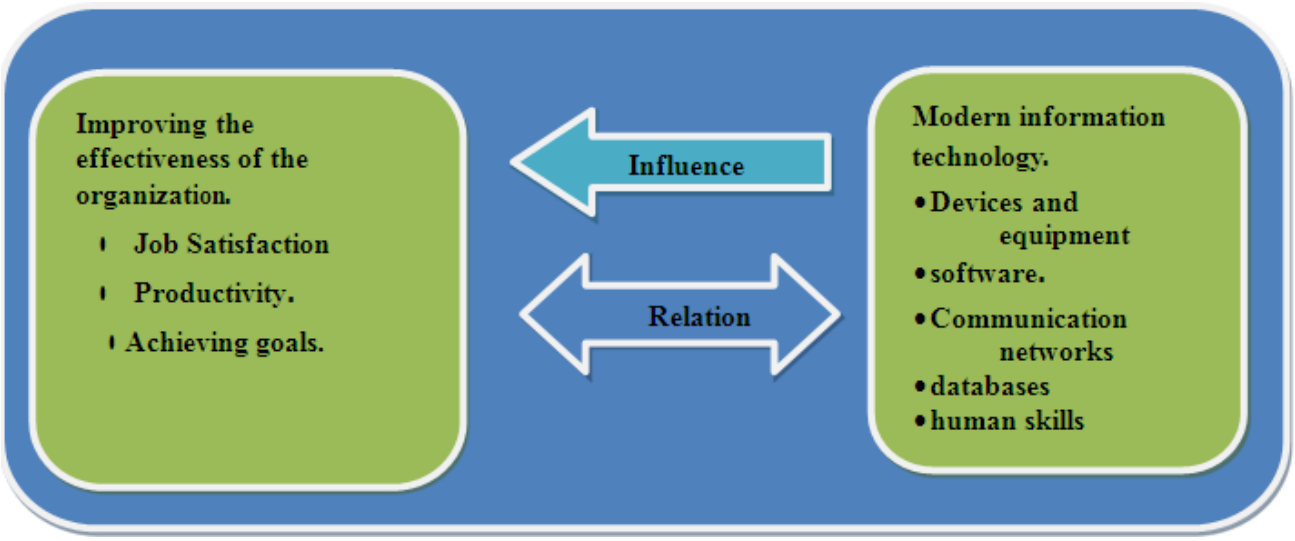
Third: Research objectives: The research seeks to achieve the following objectives:

1. Identifying the level of effectiveness in the researched organization.
2. Presenting and analyzing the reality of using modern information technology and its role in improving effectiveness in the researched organization.
3. Measuring the relationship and impact of information technology in achieving distinctive effectiveness in the researched organization.

Fourth: Research model:

A hypothetical research model was designed as in Figure (1), which indicates the relationship (correlation and influence) between tourism service quality and information technology.

Figure (1) Hypothetical research model



Source: prepared by the researcher

Fifth: Research hypothesis: In line with the research objectives and to test the plan, the researchers adopted two main hypotheses:

The first main hypothesis: There is a significant correlation between modern information technology and improving the effectiveness of the organization. This main hypothesis is divided into the following sub-hypotheses:

1. There is a significant correlation between devices and equipment and the dimensions of the organization's effectiveness.
2. There is a significant correlation between the software and the dimensions of the organization's effectiveness.
3. There is a significant correlation between communication networks and the dimensions of the organization's effectiveness.
4. There is a significant correlation between databases and the dimensions of the organization's effectiveness.
5. There is a significant correlation between human skills and the dimensions of the organization's effectiveness.

The second main hypothesis: There is a significant effect between modern information technology and improving the effectiveness of the organization. This main hypothesis is divided into the following sub-hypotheses:

1. There is a significant effect between devices and equipment and improving the effectiveness of

the organization.

2. There is a significant effect between the software and improving the effectiveness of the organization.
3. There is a significant effect between communication networks and improving the effectiveness of the organization.

Sixth: Research Methodology:

The inductive and deductive research method was used in the theoretical aspect, relying on books, magazines, and scientific periodicals. The statistical aspect was also relied upon in analyzing the scientific aspect of the research.

Seventh: Population and research sample:

For objective justifications related to the study variables, the focus was on faculty members (directors and employees) as a category related to achieve the effectiveness and goals of the organization as community sample. The sample included administrative positions such as directors, department directors, and heads of departments and divisions for their leadershiprole in setting the organizations researched and actively contributing to achieving them. The total number of questionnaires distributed was (60) questionnaires.

Eighth: The research determinants: They were represented as follows: -

1. The research was limited to Grand Millennium Sulaimani Hotel.
2. The research period extended from 11th November 2021 to 10th May 2023.

Ninth: Means of collecting data and information: -

The following methods were relied upon in collecting data and information for the research:

1. Seeking help from some Arab and foreign sources, as well as university periodicals, theses, and dissertations related to the research subject and searching the Internet to cover the theoretical side and supportthe field side with it.
2. A questionnaire was formed to obtain data on the members of the research sample, as well as data that contribute to determining the correlations and influence between the research variables. The questionnaire was prepared in light of the scientific vision achieved through surveying scientific sources.
3. Interview with some of the administrators in the investigated hotels to obtain the history of the hotels and the nature of the business they practice.

Tenth: Statistical methods: Statistical processing was done using the ready-made program (SPSS) to extract the final results and analyze them to discover the relationships and impact between the research variables.

The second domain: A conceptual framework for modern information technology First: The concept of information and communications technology:

There are many concepts for information technology. The word technology is a Latin word consisting of two syllables: art and industry. On this basis, technology refers to the rational study of the arts, or it may be in one word the science of artificial operation (Ibrahim, 2019, 5:20). Information and communications technology has been defined as a group of tools and devices that provide the processes of storing and processing information and then retrieving it and then delivering it via various communications devices to anywhere in the world or receiving it from anywhere in the world (Vectr, Kuo, 2011:10).

Second: The importance of modern information technology:

Information technology has an important role in promoting human, social and cultural development

due to its distinct characteristics and being more efficient than traditional means of communication, as it is characterized by the abundance and diversity of information in any place and time and at a low cost. Therefore, it is necessary to pay attention to information technology, develop it, and use it effectively whiletraining and educating individuals on how to use it. (Abdul Mahdi, 22: 2016).

ICT is an umbrella term that includes all the technologies and services involved in computing, data management, and the provision of communications, data, and the Internet. ICT is an important means of overcoming the divide between rich and poor countries by eliminating poverty, hunger, disease, and environmental degradation.

Information and communications technology has become the primary driver of globalization, and the use of computers and communications technology is the driving force behind globalization, carrying new methods and audio technologies. Globalization is a phenomenon that has transformed the world economy into a single economic market, removing obstacles and borders at all levels (Jesson, 2010: 78).

Third: Characteristics of modern information technology:

1. **Devices and equipment**: It includes all devices and equipment used in the processes of input, output, processing, storing, and sending data. It is also known as a group of physical and tangible structures and manufactured parts that are used in assembling the internal and external parts of the computer (Abdel-A'ali, 2013: 124). The computer is one of the most important devices and equipment, information, and communications technology.
2. **Software** is considered the basic component of computers, as the calculator works based on software. The latter is like the soul to the body, as it is a set of instructions, connections, and instructions thatenable the devices that make up the calculator to process and store data, perform logical operations, extract the required results, and supervise the calculator units (Boujemaa, 2017: 5). Software has an essential role and a serious contribution to the implementation of supporting systems, which includes various poorly equipped decision support systems, as well as administrative information systems (Hamad and Saleh, 2018:91).
3. **Networks and Communications:** The network is defined as a group of computers organized together and linked by communication lines that enable its users to share, transfer, and exchange information among themselves. There is no value for any single computer that works independently without connection through the network and it can be classified according to the method by which it is connected, concerning the geographical field and its role. Each computer provides network services. The Internet is a giant network that includes tens of thousands of networks and computers connected and uses the Internet Protocol (TCP/IP) to secure network communications (Kandilji and Al-Samarrai, 2009: 470).
4. **Data:** They are the materials and raw materials that are studied, analyzed, extracted, and processed, and their final products are information and knowledge (Bouhsan, Bonghemf, 2012: 20). They are letters, numbers, and symbols that represent concepts and facts that do not constitute meaning in and of themselves unless they are processed and the content is clear and specific. Devices and equipment work to produce information and define it through software methods that help process data and transmit this information to users through communication networks as a result of the interaction of human resources with devices and equipment. Many researchers consider that the web, e-mail, and all applications help communicate between individuals.
5. **Human resources for information technology:**

An organization that has high-level human resources working in information technology and with high skills and experience can deal with the problems it faces and address them, in addition to the ability of those human resources to provide opportunities of high value to the organization, and thus it is considered throughthe human assets of value to the organization (Al-Ma'adidi, 2008).

The third domain: The conceptual framework of the organization's effectiveness First: The concept of organization effectiveness:

The concept of organization effectiveness is considered a reflection of the organization's management's ability to deal with and respond to the change and innovation taking place in the business world. (Robbins, 1999: 49) defined it as the organization's ability to obtain various resources and invest them effectively to achieve goals, as well as its ability to balance and stabilize. (Hall, 1992: 249) sees it as the organization's ability to invest the economic unit of its environment's scarce resources in its various activities. (Jones, 2001: 17) showed organizational effectiveness to the extent of the organization's ability to meet and achieve the goals of stakeholders, and some believe that the influences on the organization's effectiveness are the strongculture, positive work climate, team spirit, work teams, loyalty to the group, trust, safety, and communicationbetween management and workers (Daft, 2001: 68).

Human resources for information technology:

Second: The importance of organizational effectiveness:

Organizational effectiveness is the core of the organization's theory and its center, due to its importance to organizations of all types, as it helps managers and guides them in performing their tasks. It also guides the functional departments in the organization in achieving its goals. For example, it guides the marketing department to increase revenues and market share, as well as the financial management department of the organization to make managers more understanding. Dealing with concepts and how to invest money in the organization, as well as with the rest of the departments in the organization.

This is because organizational effectiveness gives managers a comprehensive view of the validity of the mechanisms by which organizational structures operate, as well as the strategies derived from performance. Organizational effectiveness evaluates the activities and subsystems of the organization and gives managers indicators to measure the success of their organization. Therefore, (Hellriegel, 2001: 650) pointed out the importance of Organizational effectiveness by giving indicators to managers to judge their organizations by evaluating the activities and subsystems of the organization and identifying the factors that limit their effectiveness, whether they are information systems or a deficiency in other materials, through some multiple measures, and the researchers agreed with (Youssef, 2006: 76). The study indicated that the importance of organizational effectiveness is through its direct connection to evaluating the organization's performance and its close relationship with goals and strategies, knowing that the goals of organizations andthe extent of their achievement are different from one organization to another, and even that goals differ within the organization between its departments, formations, and groups, but they must necessarily flow intothe overall goal of the organization.

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Third: Indicators of the organization's effectiveness:

Applied studies and research conducted in various types of organizations, including universities, adopted severaL conferences to express and describe effectiveness. (Osborn and Hunt, 1974: 238) used performance as an indicator of effectiveness, while (Robbins, 2017: 383) expressed effectiveness through six indicators. They are the degree of skill in relationships of all kinds, the nature of the college, the openness of systems, social interaction, the reliance of evaluation on external parties, control of the environment, the level of consensus on goals, the approval and satisfaction of subordinates, and side approval. Effectiveness was described by another team through economic variables, which are the degree of efficiency, the quality of service provided, and the productivity rate. In recent years. As for scientific organizations, and universities,the researchers find that effectiveness has been expressed through indicators of faculty member satisfaction and scientific research productivity in universities. The researchers find that effectiveness has been expressed through indicators of faculty member satisfaction and scientific research productivity in universities, and it has also been expressed in several indicators: (Instructors' satisfaction, professional outcomes, and department and college productivity). (Jauch, et al, 2017: 84) considered the productivity of scientific research to be the only indicator of effectiveness. By presenting indicators of organizational effectiveness, the interconnection and overlap that exists between them becomes clear. Achieving any indicator can contribute to achieving another indicator, for example. Employee satisfaction may lead to improving production and raising quality, and thus achieving profits. It is worth noting that it is not necessary to measure the effectiveness of the organization through all of these data, as they are merely suggested indicators as a result of many studies and research, and there is no agreement between writers and researchers about them, and therefore there are no specific indicators that can be determined. During which the effectiveness of the organization is measured, but some indicators or data that have been used and are still more widely used than others, such as productivity, satisfaction, achieving goals... etc., and these are what the researchers focused on.

Fourth domain: - The practical aspect

Description of the sample according to demographic factors

Table No. (1). It shows the percentage of male and female participation in the studied sample

Gender		
	No.	**Ratio %**
Male	**16**	**26.7**
Female	**44**	**73.3**
Total	**60**	**100**

Table (1) shows that the sample used in the research was 60 responses, including 16 males, constituting a percentage of 26.7, while females were 44, constituting a percentage of 73.3.

Table No. (2). It shows the number and percentage of ages of participants for the studied sample

The participant ages		
	No.	**Ratio %**
Less than 35 years	**13**	**21.7**
36- 45	**31**	**51.7**
46 -55	**14**	**23.3**
More than 56	**2**	**3.3**
Total	**60**	**100**

Table No. (2) shows that the sample used in the research was (60) responses and that the ages of participants who were less than 35 years old were 13, constituting a percentage of 21.7, while those ages ranging from 36 to 45 years were 31, constituting a percentage of 51.7, while those ages ranging

from 46 to55 years were 14. They constitute a percentage of 23.3, while those aged more than 56 years constitute a percentage of 3.3.

Table No. (3). The numbers and percentages of marital status of participants for the studied Sample

Marital status		
	No.	**Ratio %**
Single	**34**	**56.7**
Married	**26**	**43.3**
Total	**60**	**100**

We notice from the marital status table that the number of single people was 34 in the sample studied, constituting a percentage of 56.7, while the number of married people was 26 in the sample studied, constituting a percentage of 43.3.

Table No. (4). The numbers and percentages of academic achievement of participants for the studied sample

Academic Achievement		
	No.	**Ratio %**
Diploma	**1**	**1.7**
Bachelor	**6**	**10**
Master	**36**	**60**
PhD	**17**	**28.3**
Total	**60**	**100**

Table (4) shows that the academic achievement of the sample used in the research was (1) for individuals who had a diploma, made up a percentage of (1.7). As for individuals who had a bachelor's degree, it was (6) and made up a percentage of (10). As for individuals who had a master's degree, it was

(36) and made up a percentage of (60). As for individuals who had a certificate, it was (1.7) percent. Doctorates are (17) and make up (28) percent.

Table No. (5). The number and percentage of years of service of participants for the sample studied

The number of service years		
	No.	**Ratio %**
1-5	**12**	**20**
6-10	**29**	**48.3**
11-15	**12**	**20**
16-20	**5**	**8.3**
More than 21	**2**	**3.3**
Total	**60**	**100**

Table 5 shows that the years of service for the sample used in the research were 12, constituting a percentage of 20, while those with service from 6 to 10 were 29, constituting a percentage of 48.3, while those with service from 11 to 15 were 48.3. 12 and constitute a percentage of 20. As for those who have service from 16 to 20 years, they constitute a percentage of 8.3. As for those who have served for more than21 years, they constitute a percentage of 3.3.

Table (6). The number of answers according to the Likert scale and the means and standard deviations forthe sample studied

Questions	Stronglydisagree	Disagree	Neutral	Agree	Completelyagree	Arithmeticmean	Standarddeviation	Coefficient of variation
1	2	3	3	14	38	4.38	1.027	23.45
2	0	1	7	20	32	4.38	0.761	17.37
3	5	2	9	13	31	4.05	1.254	30.96
4	1	1	7	14	37	4.42	0.889	20.11
5	0	2	14	11	33	4.25	0.932	21.93
Devices and equipment X1						4.2967	0.62218	14.48
6	2	1	7	23	27	4.20	0.953	22.69
7	0	3	7	31	19	4.10	0.796	19.41
8	2	1	12	17	28	4.13	1.016	24.6
9	1	5	8	27	19	3.97	0.974	24.53
10	1	4	5	15	35	4.32	1.000	23.15
The software X2						4.1433	0.56339	13.59
11	7	19	11	12	11	3.02	1.321	43.74
12	0	2	11	25	22	4.12	0.825	20.02
13	1	7	15	19	18	3.77	1.064	28.22
14	1	9	12	22	16	3.72	1.075	28.9
15	0	0	15	24	21	4.10	0.775	18.90
Communication networks X3						3.7433	0.59727	15.96
16	3	0	6	22	29	4.23	0.998	23.59
17	1	2	6	30	21	4.13	0.853	20.65
18	17	15	2	10	16	2.88	1.627	56.49
19	1	5	16	27	11	3.70	0.926	25.03
20	4	5	14	21	16	3.67	1.160	31.61
Databases X4						3.7233	0.71316	19.15
21	0	0	3	15	42	4.65	0.577	12.41
22	0	2	8	24	26	4.23	0.810	19.15
23	0	3	13	20	24	4.08	0.907	22.23
24	1	2	14	25	18	3.95	0.910	23.04
25	0	2	7	21	30	4.32	0.813	18.82
Human skills X5						4.2467	0.47065	11.08
Modern information technology						4.0307	0.37309	9.26
1	16	14	15	10	5	2.57	1.280	49.81
2	0	0	15	20	25	4.17	0.806	19.33
3	2	1	4	32	21	4.15	0.880	21.20
Job satisfaction Y1						3.6278	0.59531	16.41
4	1	1	4	22	32	4.38	0.825	18.84
5	1	1	5	34	19	4.15	0.777	18.72
6	1	0	9	24	26	4.23	0.831	19.65
Productivity Y2						4.2556	0.49997	11.75
7	3	4	4	31	18	3.95	1.048	26.53

8	**4**	**4**	**16**	**21**	**15**	**3.65**	**1.132**	**31.01**
9	**0**	**4**	**4**	**21**	**31**	**4.32**	**0.873**	**20.21**
Achieving goals Y3						**3.9722**	**0.72692**	**18.30**
Organization's effectiveness Y						**3.9519**	**0.41492**	**10.50**

Through the above results, it was found that the average of the Modern Information Technology x domain reached 4.0307 and a standard deviation of 0.37309 with a coefficient of variation of 9.26. As for the devices and equipment domain obtained an average of 4.2967 with a standard deviation of 0.62218 with a coefficient of variation of 14.48. The second item obtained the lowest coefficient of variation of 17.37. With an average response of 4.38 and a standard deviation of 0.761. As for the software domain, the average response for this domain was 4.1433 and a standard deviation of 0.56339 with a coefficient of variation of

13.59. The seventh item obtained the lowest coefficient of variation as it reached 19.41 with an average of

4.10 with a standard deviation of 0.796. As for the communication networks domain, the average response to this domain was 3.7433, with a standard deviation of 0.59727, with a coefficient of variation of 15.96. The fifteenth item had the lowest coefficient of variation, reaching 18.90, with an average of 4.10, with a standard deviation of 0.775. In the databases domain, the average response was 3.7233 and a standard deviation of 0.71316, with a coefficient of variation of 19.15. The seventeenth item had the lowest coefficient of variation, reaching 20.65 with an average of 4.13, with a standard deviation of 0.853. In the human skills domain, the average response for this domain was 4.2467 and a standard deviation of 0.47065, with a coefficient of variation of 11.08. The twenty-first item obtained the lowest coefficient of variation, reaching 12.41, with an average of 4.65, with a standard deviation of 0.577. The highest coefficient of variation was obtained by the eighteenth item belonging to the databases section, as it reached 56.49, with an average of 2.88, with a standard deviation of 1.627.

As for the organizational effectiveness domain, the average response was 3.9519 and a standard deviation of 0.41492 with a coefficient of variation of 10.50. While the job satisfaction domain received an average of 3.6278 with a standard deviation of 0.59531 with a coefficient of variation of 16.41. The second item obtained the lowest coefficient of variation, reaching 19.33 with an average response of 4.17, with a standard deviation of 0.806. The productivity domain obtained an average of 4.2556, with a standard deviation of 0.49997, and a coefficient of variation of 11.75. The fifth item obtained the lowest coefficient of variation, reaching 18.72, with an average response of 4.15, and a standard deviation of 0.777. The achieving goals domain obtained an average of 3.9722, with a standard deviation of 0.72692, with a coefficient of variation of 18.30. The ninth item obtained the lowest coefficient of variation, reaching 20.21, with an average response of 4.32, with a standard deviation of 0.873. The highest coefficient of variation was obtained by the first item related to the job satisfaction domain, as it reached 49.81, with an arithmetic mean of 2.57, with a standard deviation of 1.280.

Table No (7). The correlation coefficients between the study variables for the studied sample

The name of the variable	The devices and equipment X1	The software X2	Communicationnetworks X3	Databases X 4	Human skills X5	Modern information technology X
Job satisfactiony1	**0.014**	**0.007**	**0.346****	**0.491****	**0.137**	**0.361****
Productivity y2	**0.193**	**0.132**	**0.008**	**0.055**	**0.124**	**0.053**
Achieving	**0.471****	**0.196**	**0.196**	**0.356****	**0.317***	**0.543****

goals y3						
Organization effectiveness y	**0.435****	**0.116**	**0.224**	**0.394****	**0.297***	**0.521****

*It means that the value is highly significant with 95% confidence.

**It means that the value is highly significant with 99% confidence.

We note from the correlation table that there is the following relationship:

- The correlation coefficient was 0.014 between the job satisfaction domain y1 and the devices andequipment domain x1, which means that there is a non-significant relationship.
- The correlation coefficient was 0.007 between the job satisfaction domain, y1, and the software domain, x2, which means that there is a non-significant relationship.
- The correlation coefficient was 0.346** between the domain of job satisfaction, y1, and communication networks, x3, which means that there is a strong, high degree of moral relationship with 99%confidence.
- The correlation coefficient was 0.491** between the job satisfaction domain y1 and the databases x4, which means that there is a strong, high degree of moral relationship with 99% confidence.
- The correlation coefficient was 0.137 between the domain of job satisfaction (y1) and human skills (x5), which means that there is a non-significant relationship.
- The correlation coefficient was 0.361** between the job satisfaction domain y1 and the modern information technology domain x, which means that there is a strong, high degree of moral relationship with99% confidence.
- The correlation coefficient was 0.193 between the productivity domain y2 and devices and equipment x1, which means that there is a non-significant relationship.
- The correlation coefficient was 0.132 between the productivity domain y2 and the software domain x2, which means that there is a non-significant relationship.
- The correlation coefficient was 0.008 between the productivity domain y2 and the communication networks domain x3, which means that there is a strong, high degree of moral relationship with 99% confidence.
- The correlation coefficient was 0.055 between the productivity domain y2 and the database domain x4, which means that there is a non-significant relationship.
- The correlation coefficient was 0.124 between the productivity domain y2 and the human skills domain x5, which means that there is a non-significant relationship.
- The correlation coefficient was 0.053 between the productivity domain y2 and the modern information technology domain x, which means that there is a non-significant relationship.
- The correlation coefficient reached 0.471** between the domain of achieving goals, y3, and the domain of devices and equipment, x1, which means that there is a strong, high degree of moral relationshipwith 99% confidence.
- The correlation coefficient was 0.196 between the goal achievement domain, y3, and the software domain, x2, which means that there is a non-significant relationship.
- The correlation coefficient was 0.196 between the domain of achieving goals, y3, and the domain of communication networks, x3, which means that there is a non-significant relationship.
- The correlation coefficient reached 0.356** between the domain of achieving goals, y3, and the domain of databases, x4, which means that there is a strong, high degree of moral relationship

with 99% confidence.

- The correlation coefficient was 0.317* between the domain of achieving goals, y3, and the domain of human skills, x5, which means that there is a strong, high degree of moral relationship with 95% confidence.
- The correlation coefficient reached 0.543** between the Y3 domain of achieving goals and the modern information technology domain
- The correlation coefficient reached 0.435** between the effectiveness of the organization y and the devices and equipment domain x1, which means that there is a strong, highly significant relationship with99% confidence.
- The correlation coefficient was 0.116 between the effectiveness of the organization y and the software domain x2, which means that there is a non-significant relationship.
- The correlation coefficient was 0.224 between the effectiveness of the organization y and the communication networks domain x3, which means that there is a non-significant relationship.
- The correlation coefficient reached 0.394** between the effectiveness of the organization y and the database domain x4, which means that there is a strong, high degree of moral relationship with 99% confidence.
- The correlation coefficient reached 0.297* between the effectiveness of the organization y and the human skills domain x5, which means that there is a strong, high degree of moral relationship with 95% confidence.
- The correlation coefficient reached 0.521** between the effectiveness of the organization y and the modern information technology domain x, which means that there is a strong, high degree of moral relationship with 99% confidence.

The Impact results (regression analysis)

The impact of devices and equipment x1 on the job satisfaction domain y1

The dependent variable	Coefficient of determination R2	Regression coefficientβ	Calculatedt value	Calculated F value	Significan celevel P	Nature of the relationship
Job satisfaction	**0.020**	**0.135**	**1.089**	**1.185**	**0.281**	**Insignificant relation**

The explanatory factor was 0.020, which means that the devices and equipment factor x1 affects job satisfaction y1 by 2.0%. As for the t-test, the effect is not significant, which means that the model parametersare not significant. As for the F-test, the calculated F value was 1.185 and has a significance level of P, whichis 0.281, which is greater than 0.05, which means that the model is not significant.

The impact of software x2 on the job satisfaction domain y1

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculatedt value	Calculated F value	Significance level P	Nature of the relationship
Job satisfaction Y1	**0.025**	**0.167**	**1.222**	**1.493**	**0.227**	**Insignificant relation**

The explanatory factor was 0.025, which means that the software domain x2 affects the job satisfaction domain, y1, by 2.5%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. The F test, the calculated F value was 1.493, and it has a significance level of P, which is0.227, which is greater than 0.05, which means that the model isn't significant.

The impact of communication networks x3 on the job satisfaction domain y1

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculatedt value	Calculated F value	Significance level P	Nature of the relationship
Job satisfaction Y1	0.131	0.361	2.961	8.765	0.004	significant relation

The explanatory factor was 0.131, which means that communication networks x3 affects the domain of job satisfaction y1 by 13.1%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value reached 8.765 and has a significance level of P, which is 0.004. It is smaller than 0.05, which means that the model is significant.

The impact of databases x4 on the job satisfaction domain y1

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculatedt value	Calculated F value	Significance level P	Nature ofthe relationship
Job satisfaction Y1	0.287	0.447	4.833	23.356	0.000	significant relation

The explanatory factor was 0.287, which means that the databases x4 affects the job satisfaction domain y1 by 28.7%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value reached 23.356 and has a significance level of P, whichis 0.000. It is smaller than 0.05, which means that the model is significant.

The impact of human skills x5 on the job satisfaction domain y1

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Job satisfaction Y1	0.042	0.258	1.589	2.524	0.118	Insignificant relation

The explanatory factor was 0.042, which means that human skills x5 affects the job satisfaction domain y1 by 4.2%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value reached 2.524 and has a significance level of P, which is

0.118. It is greater than 0.05, which means that the model is not significant.

The impact of modern information technology x on the job satisfaction domain y1

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Job satisfaction Y1	0.218	0.746	4.027	16.213	0.000	significant relation

The explanatory factor was 0.218, which means that modern information technology X affects job satisfaction Y1 by 21.8 %. As for the T-test, it is moral, which means that the parameters of the model are moral significance. As for the F test, the value of the calculated is 16.213 and has a level of significance P, which is 0.000. It is smaller than 0.05, which means that the model is significant.

The impact of devices and equipment x1 on the productivity domain y2

The dependent variable	Coefficient of determinatio nR2	Regression coefficient β	Calculated t value	Calculated F value	Significan celevel P	Nature of the relationship
productivity Y2	0.049	0.177	1.724	2.971	0.09	Insignifican relation

The explanatory factor was 0.049, which means that the devices and equipment domain x1 affects productivity y2 by 4.9%. As for the t-test, the effect is not significant, which means that the model parametersare not significant. As for the F-test, the calculated F value was 2.971 and has a significance level of P, whichis 0.09. It is greater than 0.05, which means that the model is not significant.

The impact of software x2 on the productivity domain y2

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculatedt value	Calculated F value	Significan celevel P	Nature of the relationship
productivity Y2	0.034	0.164	1.431	2.048	0.158	Insignificant relation

The explanatory factor was 0.034, which means that the software domain x2 affects the productivity domain y2 by 3.4%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value was 2.048 and has a significance level of P, which is

0.158. It is greater than 0.05, which means that the model is not significant.

The impact of communication networks x3 on the productivity domain y2

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
productivity Y2	0.000	0.009	0.085	0.007	0.932	Insignificant relation

The explanatory factor was 0.000, which means that communication networks x3 affects the productivity domain y2 by 0%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value was 0.007 and has a significance level of P, which is 0.932. It is greater than 0.05, which means that the model is not significant.

The impact of databases x4 on the productivity domain y2

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
productivity Y2	0.007	0.059	0.645	0.416	0.521	Insignificant relation

The explanatory factor was 0.007, which means that the x4 databases affect the productivity domain y2 by 0.7%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value was 0.416 and has a significance level of P, which is

0.521. It is greater than 0.05, which means that the model is not significant.

The impact of human skills x5 on the productivity domain y2

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
productivity Y2	0.068	0.277	2.056	4.225	0.044	significant relation

The explanatory factor was 0.068, which means that human skills x5 affects the productivity domain y2 by 6.8%. As for the t-test, it has a significant effect, which means that the model parameters are significant.As for the F-test, the calculated F value was 4.225 and has a significance level of P, which is 0.044. It is smaller than 0.05, which means that the model is significant.

The impact of modern information technology x on the productivity domain y2

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
productivity Y2	0.050	0.300	1.749	3.058	0.086	Insignificant relation

The explanatory factor was 0.050, which means that modern information technology X affects the Y2 productivity domain by 5.0 %. As for the T-test, which means that the parameters of the model are insignificant. As for the F test, the value of the f reaches 3.058 and has a level of significance P, which is

0.086. It is greater than 0.05, which means that the model is not significant.

The impact of devices and equipment x1 on the achieving goals domain y3

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Achieving goals Y3	0.298	0.638	4.959	24.594	0.000	significant relation

The explanatory factor was 0.298, which means that the devices and equipment domain x1 affects the achievement of goals y3 by 29.8%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value was 24.594 and has a significance level of P, which is 0.000. It is smaller than 0.05, which means that the model is significant.

The impact of software x2 on the achieving goals domain y3

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Achieving goals Y3	0.029	0.219	1.313	1.724	0.194	Insignificant relation

The explanatory factor was 0.029, which means that the software domain x2 affects the achieving goals domain, y3, by 2.9%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value reached 1.724 and has a significance level of P, which is 0.194. It is greater than 0.05, which means that the model is not significant.

The impact of communication networks x3 on the achieving goals domain y3

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Achieving goals Y3	0.037	0.233	1.486	2.208	0.143	Insignificant relation

The explanatory factor was 0.037, which means that the communication networks x3 affects the achieving goals domain, y3, by 3.7%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value reached 2.208 and has a significance level of P, which is 0.143. It is greater than 0.05, which means that the model is not significant.

The impact of databases x4 on the achieving goals domain y3

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Achieving goals Y3	0.144	0.387	3.123	9.755	0.003	significant relation

The explanatory factor was 0.144, which means that the databases x4 affects the achievement of goals y3 by 14.4%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value was 9.755 and has a significance level of P, which is

0.03. It is smaller than 0.05, which means that the model is significant.

The impact of human skills x5 on the achieving goals domain y3

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Achieving goals Y3	0.132	0.562	2.975	8.850	0.004	significant relation

The explanation factor was 0.132, which means that human skills x5 affects the domain of achieving goals, y3, by 13.2%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value reached 8.850 and has a significance level of P, which is

0.04. It is smaller than 0.05, which means that the model is significant.

The impact of modern information technology X on the achieving goals domain Y3

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
Achieving goals Y3	0.282	1.036	4.779	22.835	0.000	significant relation

The explanatory factor was 0.282, which means that modern information technology X affects the achieving goals domain Y3 by 28.2 %. As for the T-test, it is moral, which means that the parameters of themodel are moral significance. As for the F test, the value of the calculated is 22.835 and has a level of significance P, which is 0.000. It is smaller than 0.05, which means that the model is significant.

The impact of devices and equipment x1 on the organization's effectiveness domain y

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
The organization's effectiveness Y	0.226	0.317	4.111	16.900	0.000	significant relation

The explanatory factor was 0.226, which means that the devices and equipment domain x1 affects the effectiveness of the organization y by 22.6%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value reached 16.900 and has a significance level of P, which is 0.000. It is smaller than 0.05, which means that the model is significant.

The impact of software x2 on the organization's effectiveness domain y

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
The organization's effectiveness Y	0.062	0.183	1.959	3.839	0.055	insignificant relation

The explanatory factor was 0.062, which means that the software domain x2 affects the domain of the organization's effectiveness, y, by 6.2%. As for the t-test, the effect is not significant, which means that the model parameters are not significant. As for the F-test, the calculated F value was 3.839, and it has a significance level of P, which is 0.055. It is greater than 0.05, which means that the model is not significant.

The impact of communication networks x3 on the organization's effectiveness domain y

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
The organization's effectiveness Y	0.079	0.195	2.227	4.958	0.030	significant relation

The explanatory factor was 0.079, which means that communication networks x3 affects the domain of the organization's effectiveness, y, by 7.9%. As for the t-test, it has a significant effect, which means thatthe model parameters are significant. As for the F-test, the calculated F value was 4.958 and has a significancelevel of P, which is 0.030. It is smaller than 0.05, which means that the model is significant.

The impact of databases x4 on the organization's effectiveness domain y

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
The organization's effectiveness Y	0.262	0.298	4.536	20,578	0.000	significant relation

The explanatory factor was 0.262, which means that the databases x4 affects the effectiveness of the organization y by 26.2%. As for the t-test, it has a significant effect, which means that the model parametersare significant. As for the F-test, the calculated F value was 20.578 and has a significance level of P, which is 0.000. It is smaller than 0.05, which means that the model is significant.

The impact of human skills x5 on the organization's effectiveness domain y

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
The organization's effectiveness Y	0.172	0.366	43.472	12.054	0.001	significant relation

The explanatory factor was 0.172, which means that human skills x5 affects the domain of the organization's effectiveness, y, by 17.2%. As for the t-test, it has a significant effect, which means that the model parameters are significant. As for the F-test, the calculated F value was 12.054 and has a significance level of P, which is 0.001. It is smaller than 0.05, which means that the model is significant.

The impact of Modern information technology x on the organization's effectiveness domain y

The dependent variable	Coefficient of determination R2	Regression coefficient β	Calculated t value	Calculated F value	Significance level P	Nature of the relationship
The organization's effectiveness Y	0.389	0.694	6.079	36.951	0.000	significant relation

The explanatory factor was 0.389, which means that modern information technology X affects the organization's effectiveness domain Y by 38.9 %. As for the T-test, it is moral, which means that the parameters of the model are moral significance. As for the F test, the value of the calculated is 36.951 and has a level of significance P, which is 0.000. It is smaller than 0.05, which means that the model is significant.

The fifth domain: conclusions and proposals.First: conclusions

Some conclusions can be summarized as follows:

1. The research showed that the level of indicators measuring modern information technology among workers in the studied organization was high according to the research scale.
2. The research showed that the investigated organization is committed to the stages of modern information technology, which have been studied at a high level.
3. There is a statistically significant relationship between the indicators of modern information technology in its various dimensions and the indicators of the organization's effectiveness among the administrative leaders in the studied organization.
4. There is a significant, statistically significant effect between the stages of modern information technology with its various components and the indicators of the organization's effectiveness among the administrative leaders in the studied organization.
5. The answers of the individuals surveyed tend towards agreement on most of the items related to the stages of modern information technology and indicators of the organization's effectiveness at the level of the researched organization.

Second: Recommendations and proposals: To complete the methodological requirements, the researchers found it useful to present the following proposals:

1. The need for management of the researched organization to pay attention to enhancing awareness of modern information technology concepts and indicators of the organization's effectiveness that the current research adopted among individual employees to achieve the highest level of benefit from adopting this concept and reaping its fruits.
2. The researched organization should pay attention to both dimensions of information technology, as these dimensions are complementary.

3. The need for management of the researched organization to educate its employees about its desire to increase modern information technology indicators and inform them of the level of the organization's effectiveness from time to time to detect deviations and correct them, by holding meetings for the relevant employees and reviewing to them models of successful organizations, benefiting from their experiences, andtrying to apply and adapt them as much as possible.
4. The study recommends that the management of the organization pays attention to training individuals and providing them with the necessary skills to enable them to carry out their work efficiently.
5. The necessity for the researched organization to establish special departments to follow up on environmental changes related to technological change.

References:

1. Abdel-A'ali (2013) identified the components of information technology in applying the broad statistics system, an exploratory study in a sample of industrial companies in Nineveh Governorate. Tikrit University Journal of Administrative and Economic Sciences / Volume 9 / Issue 28
2. Abdul Mahdi, Razan Ali Omar 2016, The impact of information and communications technology and the elements of the marketing mix on the quality of health care. Master's thesis in electronic business, College of Business / Middle East University.
3. Aksiya, Abdul Karim Wasfi 2011, Improving the effectiveness of institutional performance through information technology, Dar Al-Yazouri for Publishing and Distribution, first edition. Amman Jordan.
4. Al-Darghami, Amin Fouad (1987) "Measuring the Effectiveness of Organizations," Journal of Management, Federation of Administrative Development Associations, Volume (11), Issue (1).
5. Al-Ma'adidi, Maan Waad Allah (2008) Preparing for strategic change based on information technology capabilities "A case study of an industrial organization" The Eighth International Conference on "Variable Management" held at Al-Zaytoonah University of Jordan, April.
6. Al-Shamaa, Khalil Mohamed Hassan and Hammoud, Khusair Kazem (2007) "Organization Theory," Dar Al-Masira for Publishing, Distribution and Printing, third edition, Amman, Jordan.
7. Bennoun Khairuddin, Bitata Nour El-Din 2018, The Impact of Technology and Communications on Economic Activity in Algeria, Al-Khader University, Batna.
8. Daft, Richard. L. (2001) "Organization Theory and Design" 7th ed. south-western College Publishing U.S.A.
9. Daft, Richard L. (2011) Management loth edition engage south-western College Publishing U.S.A.
10. Daft. Richard and Noe. Raymond. A (2001) Organizational behavior 1st edition, Harcourt, Inc. Focus, Journal of Small business and enterprise development, vol (11), No(2), pp.166- 173
11. Herman, Robert D and Renzo, David (2004), Move theses on Nonprofit Organizational Effectiveness: Results and Conclusions from opal Study: Sixth International Conference, July, Toronto, Canada.
12. Ibrahim, Maghrabi, 2019, The role of information technology in improving the quality of network services. A memorandum submitted as part of the requirements for obtaining a Master's degree in Economic Sciences, Hanif Bakra University, Al-Jaraiz.
13. Jauch L.R., Glueck, w.F, Osbrn. R.N (2017) Organizational Loyalty Professional Commitment, and Academic Research Productivity. The Academy of Management Journal, Vol. 21, No. 1. Pp. 84-92.
14. Jesson Goce (2010) The unacceptable face of the Global Knowledge Economy New Zealand

Journal of Teachers, University of Auckland No. 19, 2010.

15. Kholoud Essam, Mohamed Ibrahim. The role of information and communications technology in improving the quality of information and its implications for economic development, Journal of the Baghdad College of Economic Sciences.
16. Laydon, Ken and Laudon, Jane P (2013) Management Information Systems: Managing the Digital Firm (13th Edition) Prentice Hall.
17. Morrison A. and Teixeira R. (2004) Small business Performance Atourism Sector
18. Morrow, P.C. (1999) " Concept Redundancy in organizational Research: The Case of work commitment.
19. Mounir Nouri, Naeya Park, and Haj Maddah Orabi, 2009, Information and Communications Technology and its Importance in the Economies of Arab Countries, Keeping Up with the New Global Economic Challenges, Amman, Jordan.
20. Osborn, Richard N: Hunt, James G. (1974), Environment and Organizational Effectiveness. Administrative Science Quarterly, Vol.19.2.231-246.
21. Qandilhi and Al-Samarrai (2009), Information Technology and its Applications, Al-Balqa Applied University, Al-Warraq Publishing and Distribution Foundation, Amman, Jordan.
22. Robbins, S.P(2017) " organizational Behaviour " 17th ed Hall. western, U.S.A.
23. Saad Mahmoud Al-Dawaz, Jassim Mahmoud Ali Al-Tahan 2018 Information and Communications Technology, Economic Growth Management, College of Administration and Economics, University of Mosul, Cihan Magazine, Erbil International, Part 2.
24. Saleh, Majid Mohamed and Hamad, Saad Ibrahim 2018, Information and communications technology and its impact on tourism service marketing: A field study in a sample of tourism organizations in Baghdad Governorate, Babylon University Journal, Volume 16, Issue 1.
25. Youssef, Sanaa Khader (2006) The relationship between organizational structure and strategy and their impact on the effectiveness of business organizations. Master's thesis in Business Administration Sciences. College of Administration and Economics, University of Baghdad.
26. F.Z., Haider, K.Y., Noor and I.A., Saad (2023). The role of social networking sites in promoting the culture of Iraqi rural women and empowering them. 3C TIC. Cuadernos de desarrollo aplicados a las TIC, 12(1), 352-376. https://doi.org/10.17993/3ctic.2023.121.352-376
27. Zaeid , H. F. ., Saihood , A. G. ., Yusur , M. K. ., Yasir , N. K., & Hassooni , H. A. . (2023). Analysis of the topics of sports talk shows on Iraqi satellite channels: The Captain's Program in Al-Iraqiya Sports Channel as a model. SPORT TK-EuroAmerican Journal of Sport Sciences, 12, 17. https://doi.org/10.6018/sportk.563561