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Modern information technology and its impact on administrative decisions in business organizations An exploratory study of the opinions of a sample of managers in health institutions in Diyala – Iraq

[1]Maitham Sami Kareem AlAzzawi, 2Abdulrasool saad salih, [3]Ahlam Hayder Baqer

[1]Business administration, Al-imam University College, Ballad, Iraq, maithem_sami@alimamunc.edu.iq
[23]Business administration, Al-imam University College, Ballad, Iraq

Abstract

The study aimed to determine the relationship of the influence of the independent variable, modern information technology, on the dependent variable, the administrative decision in business organizations, in the health institutions surveyed. The importance of the study was represented by addressing two important variables to determine the success of the performance and work of health organizations in the city of Diyala, namely, modern information technology and its impact on the administrative decision in business organizations. A work capable of making an effective administrative decision that is in the interest of the health organization effectively and in a quick response , based on the techniques and technical applications that were used in the process of filtering the administrative decision in the field of work of organizations and achieving their goals in a way that ensures the achievement of high performance through modern information technology in a manner that guarantees Enhancing the durability and durability of the health institution, and for the purpose of achieving the objectives of the study, and answering its questions , the descriptive analytical approach was used, to reach the results, and the study was taken from the Diyala Health Department as a community for it . (100) questionnaires were distributed to managers and individuals working in other lower administrative levels In the health organization, (92) valid questionnaires were retrieved from them for analysis , and the study adopted the questionnaire as a tool After collecting data and information and processing it statistically, the study reached a set of conclusions, the most important of which are: There is an effective impact of modern information technology on the administrative decision.

Keywords: information technology, management decision.

INTRODUCTION

With the start of the digital revolution, computer technology, audio-visual devices and communication devices were combined to form a huge technology called information technology. Information technology has saved a lot of time and effort for its users in collecting, categorizing and delivering information in an appropriate manner and at the right time. With a large volume of data and the possibility of retrieving it in a period of time that fits the needs of decision-makers, it will become complicated in the absence of the use of information technology. The increasing reliance on information technology has had a great impact on the organization, both in terms of form and structure, or on the other hand, by providing a set of strategic options to confront them, aiming to improve and sustain the performance of organizations and to improve

the performance of their human resources. The application of information technology improves the ability of projects to innovate and increases their operations. Operational efficiency, strategies, and administrative and marketing operations. The problem of the study was to answer the question What is meant by information technology? What is its importance?, The study derives its importance from the fact that it focuses on two important variables: information technology and administrative decisions. The study aimed to identify the relationship between information technology and administrative decisions. The study was presented according to four sections, the first topic reviewed the study methodology, while the second and third topics shed light on the study's variables (information technology and administrative decisions), while the fourth topic reviewed the most important conclusions and recommendations that were reached.

Research Methodology

First: the research problem

The research problem mainly focuses on knowing the viewpoint of scientists and researchers on the subject of information technology and its impact on administrative decisions in business organizations, by trying to answer the following main questions:

1- What is meant by information technology? And what is its importance?

2- How does information technology affect management decisions in business organizations?

Second: the importance of research

1- Focusing on two important variables: information technology and administrative decisions.

2- Shedding light on the issue of information technology that would help the organization in question to achieve its future goals.

3- Knowing the most important factors that affect the administrative decision-making process in business organizations.

Third: Research objectives

1- Recognize the relationship between information technology and administrative decisions.

2- Understand the concept of information technology, its importance and its components.

3- Identify the stages of the administrative decision-making process. 4- Seeing a number of points of view on the subject by studying the studies that were encountered.

Fourth: the research method

The research included the theoretical aspect, where the researcher used the descriptive method in collecting data, and a number of relevant sources and references were relied upon to determine the scientific background of the study.

Fifth: The hypothesis of the study

The study outline expresses the nature of the prevailing relationship between the independent variables and the dependent variables, when we assume that there is a strong relationship between the variables of the study and that the application of business intelligence perspectives will have a clear impact in promoting and supporting the re-engineering of banking operations because of its effective impact on the future of the study sample banks, as The methodological treatment of the study problem in the light of its theoretical framework and practical implications requires building a hypothetical scheme that indicates the logical relationship between the study variables in an effort to reach initial solutions to the study problem. The scheme includes the following variables:

:

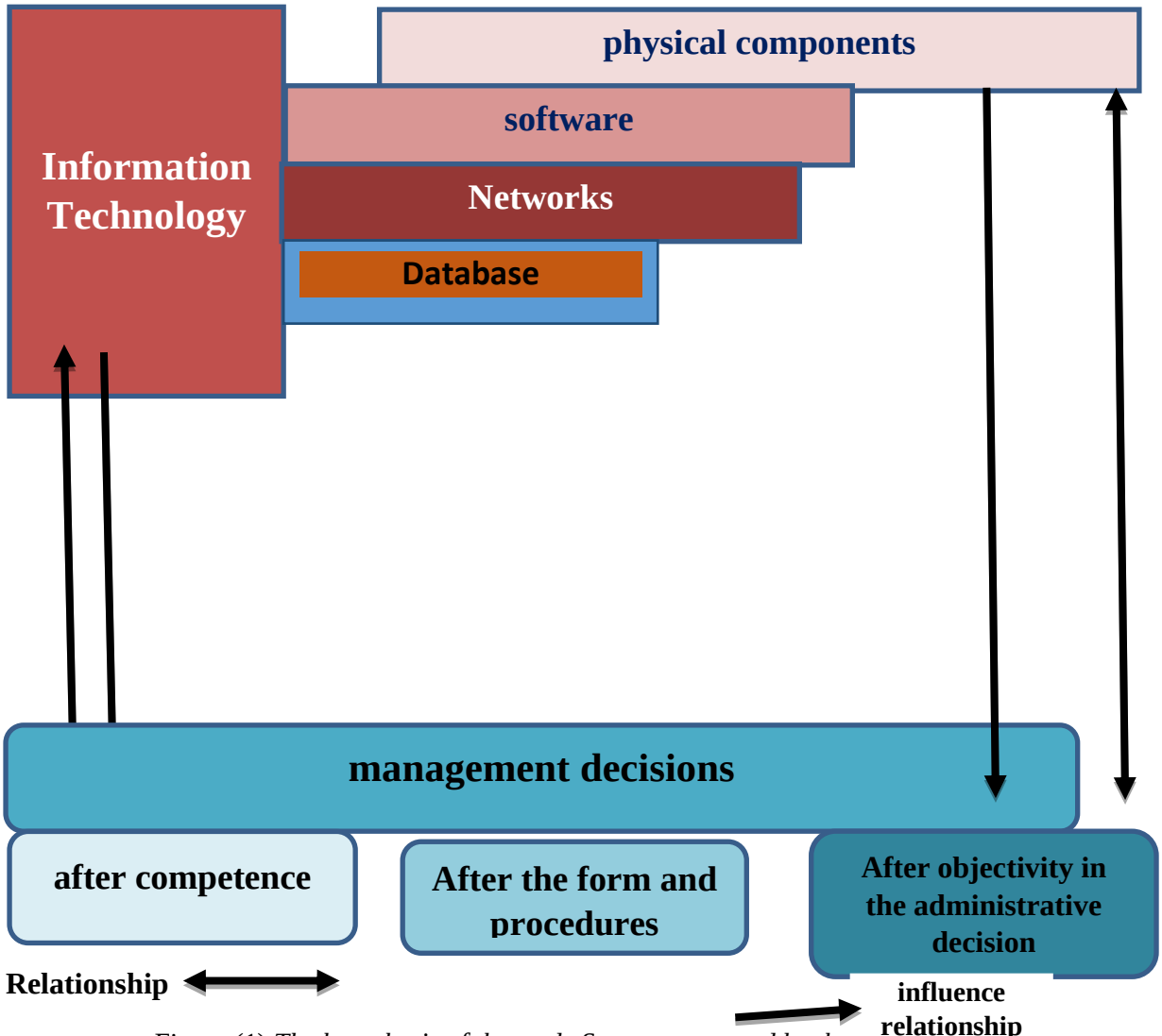

Figure (1) *The hypothesis of the study Source: prepared by the researchers.*

Sixth: The hypotheses of the study

1- The first hypothesis: There is a significant correlation relationship between information technology and administrative decision in business organizations, through the dimensions of business intelligence perspectives in the surveyed banks, according to the perception of the research sample.

2- The second hypothesis: Information technology is positively related to each of its dimensions in the field of supporting and enhancing administrative decisions in business organizations.

3- The third hypothesis: Information technology affects the administrative decision support in business organizations and the following branches are derived from it (the applications of information technology vary through its impact on the administrative decision in business organizations).

Seventh: Study Methodology

In its orientations, the study relies on the use of the descriptive analytical approach to collect and analyze data to reach the results required to draw conclusions and make recommendations that benefit health institutions in Diyala city in general.

Eighth: The statistical tools used in the study

The data was analyzed using the (SPSS.23) program, which is one of the statistical analysis programs through which the data can be

analyzed according to the partial squares method that can be adopted in analyzing the data of small samples (<100). It is worth noting that the partial squares method is the method that enables the researcher to integrate Unobservable variables measured indirectly by variables containing indicators of this technique.

Ninth: The study population and its sample

The study population included a group of managers, heads of departments and people in health institutions that represented the field of study, as they are more familiar with the subject of the study; And because they have the necessary data and information only because they have an official website for the subject of the study, as the total number of the study population was (92) people, from whom a sample was chosen according to the method of random sampling and the questionnaire was distributed, which is the main tool for collecting data on them in a direct way to clarify some paragraphs and it was retrieved (92) questionnaires were all valid for analysis.

Table (1) *Study variables according to the questionnaire*

main variables	**main variables**	**number of paragraphs**	**Sources**
Information Technology	physical components	5	)Al-Jubouri, 2015( )Jomaa,42,2016(
	software	4	
	Networks	4	
	Database	4	
Total	**4**	**17**	
administrative decision	after competence	5	)Major,2013, 22( )Nawaf, 2012, 17(
	After the form and procedures	5	
	The objectivity dimension of the decision	5	
Total	**3**	**15**	

The first axis

information technology

First: the concept of information technology

There are several definitions that dealt with the concept of information technology, among which we mention.

Farouk defined it as: the application of electronic technologies, including computers, satellites, and other advanced technologies to produce analog and digital information, store it, retrieve it, distribute it, and transfer it to another place. (Farouk, 2020: 26)

As for Fawzi, he defined it as: the systematic method that we follow when using the heritage of different knowledge (after arranging and organizing them in a special system), in order to reach appropriate solutions for some scientific tasks using the computer, and the related communication equipment and software that enable him to communicate in a networked framework with other devices. (Fawzi, 2016: 411). Al-Sayed considers that information technology: the sum of different techniques,tools,means,or systems that are employed to process the content or content that is intended to be connected through the process of mass, personal or organizational communication, through which data and information are collected, audio, written, pictured, drawn, visual, or Printed or digital through computers, then storing this data and information and then retrieving it in a timely manner, then publishing these communication materials or messages, transferring them from one place to another and exchanging them. This technology may be manual, mechanical or electrical (El-Sayed,2019: 354).

As for the researcher, he defines information technology as:the exploitation of every computer tool that individuals refer to in processing data to obtain information that benefits the organization.

Second: the importance of information technology

The importance of information technology is highlighted in several points, the most important of which are: (Mounia, 2020: 7).

1- Its serious contribution to enhancing the elements of competitive advantage for institutions, as business expands, costs decrease, and new returns and resources are achieved for the organization.

2- Improving the speed of response to customers, continuous improvement of quality, and the formation of the technical base for building knowledge tool systems in the organization.

3- Managers use information technology for the purpose of making decisions in the performance of various operations and functions, as these functions interact and integrate through the availability of modern information technologies.

4-It helps to develop and raise the efficiency and capabilities of management officials.

5- Innovation and renewal without interruption.

6- Contributing to economic development by reducing poverty rates and setting effective strategic and control programs.

Third: the objectives of information technology

Information technology has many goals, including:(Al-Baghdadi,2006:83).

1- Reducing production complexity costs and eliminating the effect of competitive advantage resulting from economies of scale.

2- Make communication faster, more efficient, perform and cost less.

3-Providing accurate and up-to-date information to support decision-making.
4- Providing organized processes and simplified procedures for managing resources, and thus greater and better effectiveness.

5- Enhancing accountability and transparency, which leads to reducing the occurrence of errors and fraud.

6- Eliminate waste of time, effort and resources.

Fourth: Information technology

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Fifth: Information Technology Components

Information technology consists of a group of basic elements and my agencies: (Hamad et al., 2016: 6)

1- Physical components: include the means of input, the central processing unit, the means of output, and the various means of storage and means of communication. That is, it includes all the equipment used to enter,store,transfer,circulate, retrieve, receive and transmit information upon request to any beneficiary. The organization, as well as its contribution to reducing the intensity of administrative work and reducing

routine,which opens wide horizons for creativity and development.

2- Software: a term given to a group of intangible components of a computer system, including instructions, procedures,programs,operating systems, and programming languages. Some assert that it is a detailed set of instructions and orders prepared by the human (the programmer) that works the data continuously to keep pace with the emerging changes so that managers can take their strategic decisions according to correct foundations, and to enable the rest of the end users to carry out their work efficiently and effectively.

3- Communication networks: the means used to send and receive data and information, as it consists of a group of stations located in different locations and connected to each other by means that allow the beneficiaries to conduct the process of sending and receiving. Networks are a vast collection of interconnected text documents on the Internet. The World Wide Web allows a web browser program to transmit all kinds of information from programs, news, sounds, and video images, as well as texts, using a mouse or keyboard.

4- Database:It is a repository that contains data, topics,and files organized and interconnected with each other that describe all the processes and current events in the organization in all their details. Preserved in these rules is the raw or primary material from which knowledge and information are extracted, and the data processing base can be added, modified and updated continuously to keep pace with emerging changes to help managers make their strategic decisions according to correct foundations, and to enable the rest of the end users to carry out their work efficiently and effectively.

5- Human resources skills: they are represented by a set of skills and knowledge to accomplish the tasks of the organization. The human resource is the most important component of information technology, as it can be described as an implicit accumulation of knowledge in the minds of the employees of the organization. Creating human skills with experience and competence is one of the requirements for the application of information technology.This is done through training in specialized scientific institutions. The human resource is the most important component of information technology because it is responsible for controlling, managing and operating other components.

Sixth: The characteristics of information technology

Information technology has many characteristics, including:(Noah,2014: 46).

1- Reducing time: technology makes all places electronically contiguous

2- Sections of intellectual tasks with the machine: as a result of interaction and dialogue between the researcher and the system.

3- Minimization: In other words (faster, cheaper...) and this is the pace of development of information technology products.

4- Artificial intelligence: The most important characteristic of information technology is the development of knowledge and the strengthening of opportunities to train users for comprehensiveness and control over the production process.

5- Interactivity: that is, the user of this technology can be a receiver and a transmitter at the same time. The participants in the communication process can exchange roles, which allows creating a kind of interaction between activities.

6- Commitment: It means the possibility of receiving messages at any time convenient for the user, as participants are not required to use the system at the same time.

7- Decentralization: a feature that allows the independence of information technology.

8- Connectivity: It means the ability to connect various communication devices, i.e. regardless of the company or country in which the manufacture was made.

9- Mobility: that is, the user can benefit from its services during his travels, from anywhere through many means of communication such as a computer, mobile phone...etc

Seventh: Information Technology Application

effect of use	Example about use	the field
- Increase student and teacher productivity -Reduce risks -De livering education to the largest number of people on a continuous basis	- Use of multimedia -Simulation. -distance learning. - educational information system	- The field of education and training
- instant messaging -Reduce costs	- Email services - Internet phone calls - Remote video and audio meetings	- Communications
- Provide faster service and reduce paperwork 2- Improving the service, speeding up account control and supporting the financial supervision of banks	- Electronic money transfer - Automation of banking business	- The field of finance and economics
- Strengthening communication, whether within the institution or between organizations, to achieve integration and cooperation between them - Saving time and effort	- The use of computer networks in the administrative affairs of the organization - The use of electronic management in the various activities of the organization	- Administrative field
- Reduce production cost Achieving accuracy and flexibility - -Reducing errors and accidents at work	- Factory automation - Artificial intelligence - Computer-aided design	- industrial field

The most important areas of information technology use can be clarified with examples in the following table: (Osman, 2019: 14)

Eighth: the dimensions of information technology

1- Physical components. Computer technologies represent the physical and technical foundations that represent the infrastructure of information technology, as it represents the backbone of it in the main, which is represented by (software, applications, databases, communication networks, as well as human resources),which represents the basis for computerized systems in order to perform the tasks completely. Hardware represents all computer applications, programs and hardware components , as well as the devices attached to it, as if they represent the physical components that represent the processes of input and output of data and information that are obtained in order to employ them in programs and applications that are translated into information that is useful in making the administrative and financial decision of the institution as a whole. (Al-Buhaisi, 2006: 14)

2- Software. Software consists of a set of rules, instructions, programs and applications that include under a set of instructions that direct the computer to what it should do. System software, application software,and software for other purposes, where the first is the details of system administration,while the second is concerned with guiding the computer in order to carry out tasks, while the latter is concerned with the packages that are used to bring documents, tables and databases (Al-Hamdani,2015, 32).

3- Communication networks. It represents the way in which data and information are sent, which consists of a set of applications and software through which communication processes can be carried out represented in the receipt and delivery of reports related to documents and documents that link the reports to each other in order to carry out the decision-making process on the According to the Bitant and the information that has been translated into easy-to-understand and simplified images, shapes and data for the reader to appear more effective in the decision-making process that is in the interest of the oil corporation and other companies working in the field of production and services, as it is considered a huge wealth of information that can be used in making Administrative Escape (Al-Abadi, 2006, 108)

4- Database. Databases are among the important and necessary tasks and applications for storing, distributing and filtering data and information and solving the problem of data repetition and its negative repercussions and method of processing, which makes it easy to obtain all data about customers and choose the best of them through the data and information stored in the database, whether the data is central Or decentralized and how to manage it appropriately, making it available to the end user in order to benefit from it in the administrative decision-making process. (Abu Ghoneim, 2000, 108).

second axis

management decisions

First, the concept of administrative decision

The decision-making process has attracted the attention of many management scientists and psychologists because it accompanies man in his daily and functional life, meets his various needs and achieves adaptation. Man is unique from other creatures by possessing mental abilities that achieve the possibility of the required experiment and choice when facing a problem.

The meaning of administrative decision becomes clear through a number of definitions set by scholars of administrative thought, some of which we mention:

An administrative decision is defined as : a specific course that is chosen from among many alternatives to confront administrative problems, in light of certain theoretical and practical criteria, ensuring the integrity of the choice and its ability to keep pace with future changes to the organization’s activity. (Al-Hallaq, 2014: 70)

It is also defined as : Choosing a path and way from among the ways and means to reach the organization's desired goals. (Abdulkarim, 2011: 37))

Simon defined the administrative decision as : choosing an alternative from among the available alternatives to find the appropriate solution to a new problem resulting from a changing world, and representing the essence of executive activity in business. (Simon ,1960: 01).

Second: Types of administrative decisions

Administrative decisions differ in terms of their types and topics, and the following is a presentation of the most prominent types:(Al-Hallaq,2014:17).

1- According to their degree of importance, including:

A - Strategic decisions: are those decisions that are dangerous and important and have a long-term impact on the organization. Also , its results are reflected positively or negatively on the life of the organization and its existence and continuity of survival.

b- Tactical decisions: These are decisions that are made at the level of middle management, where managers make decisions to solve the problems of organization and performance control, whereby they ensure that the resources have been obtained and used efficiently and effectively in achieving the goals of the organization, such as forecasting sales.

C- Operational decisions: They are those taken by the person responsible for his activities. They are usually simple and a general method can be identified to deal with them and do not require much time and effort to decide. Examples of these decisions are (arranging work within the workshops, rewards, and incentives.)

2- According to the degree of certainty, including:

A- Confirmed Decisions: The organization possesses accurate and complete information about alternatives and their guaranteed and calculated results. Consequently, these decisions are made under normal circumstances, and there is no variable outside of control. One of such decisions is the organization's investment of part of its money in the bank under a certain interest.

B - Decisions with risk: they are related to outcomes governed by the probability distribution, and are usually taken in circumstances characterized by ambiguity and uncertainty and about which accurate information is not available, such as investing in shares or entering into a project affected by climatic conditions.

3- According to the degree of participation of others, including:

A- Individual decisions: i.e. the administrator takes it alone without referring to others, and the reason for this is due to the manager’s philosophy and the centralization of authority policy.

B - Group decisions: These are decisions that depend on the involvement of workers in its manufacture, and the organization may resort to this through various methods, including brainstorming sessions, to obtain alternatives characterized by excellence.

4- According to the degree of frequency and scheduling, including:

A - Programmed decisions: they relate to cases that are not unique or not distinct and are characterized by repetition and can be routinely scheduled, such as time offs and daily signatures.

B - Non-programmed decisions: they differ from the first because they are not the same and require consideration of them individually and depending on their subject and circumstances, such as the decision to dispatch associates or transfer between departments.

Third: The stages of the administrative decision-making process

The administrative decision-making process goes through five stages: (Suad, 2020: 559).

1- Problem diagnosis stage: This stage is one of the most important steps in the administrative decision-making process, so that when the problem is correctly diagnosed, it requires accuracy and clarity at this stage. Therefore, managers must identify, diagnose and identify the different aspects of the problem in terms of type, main and secondary cause. , in order to reach a sound decision that ends with the satisfaction of all employees.

2- The stage of data and information: In this stage, managers must obtain the largest amount of data and information related to the alternatives offered, and verify their sources, as the data and information differ from one problem to another.

3- The stage of identifying and evaluating solutions: In this stage, more than one solution is identified and it is required that there be at least two alternatives to the solution through the participation method, as this depends on seriousness in putting forward ideas, presenting the largest number of ideas, not criticizing the proposed ideas, and mixing between ideas and improvement.

4- The stage of choosing the appropriate solution to the problem: This stage is the final selection process from among the available alternatives, and the selection of the appropriate alternative, and therefore the alternative must be understandable by the workers and applicable in order to facilitate its implementation and achieve the desired goals.

5- The stage of implementing and evaluating the decision: This is the last stage and it goes through several stages, including: the workers in charge of implementation, defining responsibilities, the way in which the decision is implemented, the means by which the decision is evaluated, the possibility of measuring the success of implementation, and addressing any emerging problems during implementation with Develop plans or alternatives to address any shortcomings in addition to the original decision. As this stage distinguishes decision-makers from discovering problems early, working with realism and accuracy in the implementation process, developing a sense of responsibility among subordinates and urging them to participate in decision-making.

Fourth: Factors affecting the administrative decision-making process

There are factors that affect the administrative decision-making process, and these factors include: (Abdin, 2012: 15)

1- Psychological factors: The psychological factor of the decision maker consists of the scientific background, motives, trends, traits, as well as perception and personal experience. Decision makers may differ in their understanding and interpretation of the information surrounding them, diagnosing problems, and identifying appropriate alternatives.

2- Civilizational and cultural factors: they include the prevailing values, traditions and customs, which may dominate the thoughts and behavior of individuals, and therefore the decision-maker may be affected by these factors when he reaches the decision-making process.

3- Internal environment factors: the size of the organization, the number of employees and clients, the extent of its growth and stability, its organizational structure, methods of communication, formal and informal organization, and the nature of the prevailing human relations. All of this affects the internal environment of the organization, and thus the decision-makers are affected, so the administration must provide the appropriate atmosphere and the appropriate environment in order to achieve the success of the decision taken.

4- External environment factors: any organization is an integral part of society, it is affected by society directly or indirectly. Taken by ministries and state institutions.

5- Social factors: These include external pressures that result in imposing some decisions on the management of the organization, or the mutual influence between decision-makers or members of other social organizations, both formal and informal.

Fifth: The dimensions of the administrative decision

1- Jurisdiction. The dimension of jurisdiction is considered one of the pillars of the administrative decision, and its legitimacy requires that it be issued by someone who has the authority and jurisdiction to issue it, and the contested decision is null and marred by the defect of lack of jurisdiction if it is issued without the defendant being against a competent person, as this dimension represents the legal capacity It is necessary to carry out a specific administrative work. The element of competence is considered one of the most important and oldest pillars of the administrative decision, because it is very clear on the one hand and is linked to the public order, and the important consequences of this connection represent the necessity of the administrative court to address this element on its own (Assad, 66, 1992))

2- After the form and procedures.Where the administrative decision is not considered correct in the two elements of the form and procedures that are required by the law and the form. Here, the external appearance or form that is formulated in the administrative decision is considered the external image, whether this image is taken in writing or other than writing, that is, in a way other than writing, which is considered Oral or by pointing, suggesting, or silence, which means refusal or acceptance, where it represents after the pillars of the administrative decision is the cornerstone of the form and procedures of the core programs that represent the administrative decision in the institution as a whole. (Al-Helou, 1982, 460)

3- Objectivity in the administrative decision. The substantive elements in the administrative decision represented in the place, the reason and the end, where the corner of the place in the place of the administrative decision is legitimate and permissible, and this condition means that the legal effect of the administrative decision is not contrary to the values, regulations, applications, public morals or the rule of law, for example That administrative decision issued by depriving the employee of his regular leave as a disciplinary penalty for a violation he committed. As for the reason pillar, it is a set of legal and material cases that preceded the decision-making and motivated the administrative body to take it. Accordingly, the administrative body cannot take the decision unless there is a legal or realistic reason or a group of Reasons that motivate the administration to bring about a legal effect for that, while the cornerstone of the goal is the perpetuation of the public interest. If it is proven that the administration seeks, behind the administrative decision, to achieve a private personal interest for the issuer or for others at his request, or to harm another person for revenge, it is considered faulty abuse of power. From the issuance of the disciplinary administrative decision against an employee who committed a violation is to deter this employee and deter employees like him to ensure the proper functioning of the administrative facility The total of the institution. (Kanaan, 1999, 247).

Sixth: The relationship between information technology and administrative decisions

The information and communication technology revolution has contributed to the growing interest in information to improve its quality and deliver it as quickly as possible to decision makers to make rational decisions, which depend mainly on information of high quality to rationalize these decisions. , to give materiality to its value, to a degree that made the human society a society based on the principle of computer communication, which expresses the human's access to technological development in the field of processing and distributing intellectual, knowledge and information material by means of the computer. If we look closely at the real pillars that stand behind the progress of the industrialized countries, we will find that the most important pillar is management and organization, and that management and organization stand behind it pillars and foundations, and among those pillars and modern foundations are information and communication technology.

Information technology is a key factor in the success or failure of any business organization, and this stems from the fact that information is

used as a tool for coordination and support for the administrative process and decision-making on the one hand, and as a communication tool in business organizations with the surrounding environment on the other hand.

Administrative activity in business organizations has a very close relationship with this information systems, and this relationship increases in strength and trust as the degree of ambiguity and mistrust surrounding administrative decisions and their expected results increases, (Harrison 1997: 358). Thus, the role of information technology in rationalizing administrative decisions can be summarized as follows:

Assist managers in their tasks in the field of planning and control, and this information is completed when complete, accurate and timely information arrives.

- Giving information and reports at a lower cost while maintaining the accuracy of the information.

- Crystallization and filtering of information that reaches managers and depends on them.

- Presenting a series of alternative ways to accomplish the work in a way that shows the effects and results of the various decisions before they are applied in practice.

- Maximum use of managers' time and not busy them in the process of extracting information through the large number of data and documents.

The third topic

The field framework for the study

: 1- 2: Testing the hypotheses of the study

First: testing the correlation hypotheses:

A-: To test the first main hypothesis which says (there is a significant correlation between information technology and its impact on the administrative decision in business institutions in its dimensions)

Table (8) *shows the correlation coefficient and the t-test of the correlation coefficient between information technology and the administrative decision with its dimensions*

Dimensions	Administrative decision in business organizations		Dimension of competence		Dimension form and procedure		Dimension Objectivity in the administrative decision	
Information Technology	t test	r	t test	r	t test	r	t test	r
	11.82	0.78	9.56	0.71	9.84	0.72	10.76	0.75

Tabular t-value with a significance level of 5% and a degree of freedom (90) = 1.97

Through Table (8), the calculated t-values were all greater than their tabular value at the level of significance (0.05) and the degree of freedom (90), amounting to (1.97). This means that there is a significant correlation between information technology and its impact on the administrative decision in business organizations, as well as with All dimensions of administrative decisions in business organizations, as we note that all signs of the correlation coefficient are positive, and this means that the relationship is direct between information technology and its impact on the administrative decision in organizations and all its dimensions, and the highest correlation coefficient with information technology appeared in the dimension of competence.

The following sub-hypotheses emerged from this hypothesis:

1- To test the first sub-hypothesis emanating from the first main hypothesis which says (there is a significant correlation between the physical components and their impact on the administrative decision in business organizations in its dimensions:

Table (9) *shows the correlation coefficient and the t-test of the correlation coefficient between the physical components on the dimensions of the administrative decision.*

Dimensions	Administrative decision in business organizations		Dimension of competence		Dimension form and procedure		Dimension Objectivity in the administrative decision	
physical components	t test	r	t test	r	t test	r	T test	r
	4.52	0.43	3.54	0.35	4.65	0.44	4.91	0.46

Tabular t-value with a significance level of 5% and a degree of freedom (90) = 1.97

Through Table (9), the calculated t-values were all greater than their tabular value at the significance level (0.05) and the degree of freedom (90), which amounted to (1.97). , We also note that all the signs of the correlation coefficient are positive, and this means that the relationship is direct between the physical components and the dimensions of the administrative decision and all its dimensions, and the highest correlation coefficient with the physical components has appeared in the dimension of competence.

2- To test the second sub-hypothesis emanating from the first main hypothesis which says (there is a significant correlation between software and its impact on the administrative decision in its dimensions)

Table (10) *shows the correlation coefficient and the t-test of the correlation coefficient between software and the dimensions of administrative decision:*

Dimensions	Administrative decision in business organizations		Dimension of competence		Dimension form and procedure		Dimension Objectivity in the administrative decision	
Software	t test	r	t test	r	t test	r	t test	r
	5.09	0.473	5.11	0.474	3.87	0.378	5.12	0.475

Tabular t-value with a significance level of 5% and a degree of freedom (90) = 1.97

Through table (10), the calculated t values were all greater than their tabular value at the level of significance (0.05) and the degree of freedom (90) which amounted to (1.97). This means that there is a significant correlation between the software and the dimensions of the administrative decision, as well as with all dimensions of the administrative decision. We also note that all signs of the correlation coefficient are positive, and this means that the relationship is direct between software and the dimensions of the administrative decision and all its dimensions, and the highest correlation coefficient with software has appeared in the dimension of competence.

3- To test the third sub-hypothesis emanating from the first main hypothesis which says (there is a significant correlation between communication and treatment networks and their impact on the dimensions of administrative decision) :

Table (11) *shows the correlation coefficient and the t-test of the correlation coefficient between communication networks and the Tabular t-value with a significance level of 5% and a degree of freedom (90) = 1.97*

Dimensions	Administrative decision in business organizations		Dimension of competence		Dimension form and procedure		Dimension Objectivity in the administrative decision	
Dimension networking	t test	r	t test	r	t test	r	t test	r
	10.13	0.73	7.50	0.62	9.56	0.71	9.84	0.72

Through Table (11), the calculated t-values were all greater than their tabular value at the level of significance (0.05) and the degree of freedom (90) which amounted to (1.97). , We also note that all the signs of the correlation coefficient are positive, and this means that the relationship is direct between software and the dimensions of the administrative decision and all its dimensions, and the highest correlation coefficient with software appeared in the dimension of competence.

4- To test the fourth sub-hypothesis emanating from the first main hypothesis which says (there is a significant correlation relationship between the database and the dimensions of the administrative decision):

Table (12) *shows the correlation coefficient and the t-test of the correlation coefficient between the database and the dimensions of the administrative decision.*

Dimensions	Administrative decision in business organizations		Dimension of competence		Dimension form and procedure		Dimension Objectivity in the administrative decision	
Database	t test	r	t test	r	t test	r	t test	r
	1.22	0.79	1.22	0.79	9.56	0.71	9.84	0.72

Tabular t-value with a significance level of 5% and a degree of freedom (90) = 1.97

Through the table (12), the calculated t values were all greater than their tabular value at the significance level (0.05) and the degree of freedom (90) amounting to (1.97). This means that there is a significant correlation between the database and the dimensions of the administrative decision, as well as with all dimensions of the administrative decision. , We also note that all the signs of the correlation coefficient are positive, and this means that the relationship is direct between the database and the dimensions of the administrative decision in all its dimensions, and the highest correlation coefficient with the database appeared in the dimension of competence.

Second: Testing the regression hypotheses:

b- Simple Linear Regression:

First: To test the second main hypothesis which says: (There is a significant effect of information technology and the dimensions of the administrative decision)

Table (13) *shows the results of simple linear regression in the impact of information technology on the dimensions of administrative decisi*

Stability value	beta coefficient value	Calculated t value	The value of the parameter of determination%	The calculated F value	indication
-1,05	1,18	11,79	0,61	139,18	having an effect

Tabular F-value with a significance level of 5% and a degree of freedom (118,1) = 3.96

Through Table (13) we note:

The calculated F value reached (139.18), which is greater than its tabular value at the level of significance (0.05) and the degree of freedom (90,1), which is ( ). The effect is positive (a direct relationship), and the value of the coefficient of determination is (0.61), which means that (61%) of the changes in the dimensions of the administrative decision can be explained through information technology, and the value of the beta coefficient has reached (1.18),which is a positive value and a function, as it The calculated t value (11.79) which is greater than its tabular value at the level of significance (0.05) which is (1.97). As for the regression equation, it was as follows

$Y = -1.05 + 1.18 X$

Whereas:

Y: represents the dimensions of the administrative decision

X: represents information technolog

1- Graduated Linear Regression:

To find out which of the axes of the independent variable (information technology) affects the dependent variable (dimensions of administrative decision) and which of these axes affects the most, we will use stepwise skew, and the results are as follows:

First: To test the third main hypothesis which says: (Is there a significant effect of information technology axes in the dimensions of administrative decision and which of these axes is more influential).

input independent variables	constant value	beta coefficient value	Calculated t value	The value of the parameter of determination%	The calculated F value	indication
Database	-0. 25	0. 62	6,71	0,68	97,66	having an effect
software		0.34	4,14			

Tabular F-value with a significance level of 5% and a degree of freedom (89,2=

Through the table (14), which shows the results of the gradient regression, we note that the first axis that entered the model is the axis of the database, where the value of its beta coefficient was (0.62), which is a positive and function value, where the calculated t value was (6.71), and the second axis that entered In the model, it is the axis of the software, where the value of its beta coefficient was (0.34), which is a positive value and a function, where the calculated t-value was (4.14), while the rest of the axes were not included in the model, and the calculated F value was (97.66), which is greater than its tabular value at The level of significance (0.05) and the degree of freedom (89,2) which is ( ) and this means that there is a significant effect of the database and software in the dimensions of the administrative decision, and the corrected value of the coefficient of determination was (0.68), which means that (68%) of the The changes that occurred in the dimensions of the administrative decision can be explained through the axes of the database and the software. As for the regression equation, it was as follows:

Y = -0.25 + 0.62 X4 + 0.34 X5

Whereas:

Y: represents the dimensions of the administrative decision

X4: represents the database

X5: represents software

Conclusions and Recommendations

Conclusions

1- It was found from the results of the statistical analysis that the health institution in Diyala has high-level capabilities of communication and communication between departments at its various levels, which is characterized by their ability to exchange information and data easily and which works to accomplish the tasks entrusted to them in order to enhance production capabilities, provide services and maintain communication in workplace to reduce errors resulting from work.

2- It was found through the results of the statistical analysis that the health institution in Diyala is characterized by transparency in dealing between administrative levels, departments and people, forgetting the working individuals and what their skills are.

3- The results of the statistical analysis showed that it must determine the current and future trends of the employees and allow them to determine their professional goal, which gives them self-confidence, and then improve their performance in providing services. On the other hand, a weakness appears in the continuous support by the departments at their various administrative levels, which is forgotten. Freedom of opinion and the extent of their aspirations and desires and employment.

4- The results of the statistical analysis showed that there is a statistically significant impact of information technology (databases) on the administrative decision in health institutions in Diyala, and this result indicates that health institutions in Diyala, if they are interested in modernizing technological techniques by keeping pace with the development taking place in the technological environment As well as carrying out continuous training, which contributes directly to influencing the administrative decision in business organizations in general and health institutions in particular.

Secondly. Recommendations:

The first recommendation: Increasing the efficiency of administrative leaders in health institutions in Diyala to work on modern applications and follow modern technological methods and communication skills with individuals working in those institutions.

The second recommendation: The health institutions in Diyala, especially the administrative levels, should pay attention to their various capabilities in granting working individuals a portion of the authority in order to obtain the completion of the tasks assigned to them as soon as possible.

The third recommendation: the need to work to support modern trends among working individuals and to give them values and optimism in an effective and permanent manner and motivate them and leave any impression or unwanted on others in dealing with them.

Fourth recommendation: directing the health institution in Diyala towards activating information and communication technology among the administrative levels because of its positive impact on the application of the distinguished performance practiced by working individuals.

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