Journal of Education and Practice
ISSN 2222-1735 (Paper) ISSN 2222-288X (Online)
Vol.13, No.22, 2022

The Degree of Information Technology Use and Its Impact on the Administrative Creativity of the Employees of Al Muwaqqar Directorate of Education

Eman Nazzal Khalifah Al Qudah
Jordanian Ministry Of Education
Email ID: eman Nazzal 25@gmail.com

Abstract
The current study aimed to reveal the degree of use of information technology and its impact on the administrative creativity of the employees of Al Muwaqqar directorate of Education . It was applied to the study sample, which amounted to (78) employees of the Directorate. The results indicated that the degree of information technology use and its impact on administrative creativity among the employees of Al Muwaqqar directorate of Education came to a medium degree for each of the part related to information technology and the part related to administrative creativity. The results also showed that there were no statistically significant differences in the degree of information technology use and its impact on administrative creativity among the employees of the Directorate of Education due to the variable of gender and educational qualification.
Keywords: Information Technology, Administrative Creativity.
DOI: 10.7176/JEP/13-22-03
Publication date: August 31st 2022

INTRODUCTION

Information and communication technology plays a major role, whether at the level of individuals or groups, or at the level of organizations and institutions, as this technology has helped to bring about important changes, represented in the decrease in the costs of its operations, the reduction of its price levels, the improvement of its quality, and the increase in the speed of delivery. its productivity, in order to meet the increasing requirements of the consumer public, which ultimately led to an increase in its competitiveness, and the achievement of its goals of survival and growth, and perhaps this confirms that information technology has become a basic requirement and not a luxury for departments looking for efficiency and effectiveness in performing its functions.

Information technology is among the most important tools used by managers to manage the operations of the enterprise and what these processes require of resources and management of change. The basic information systems constitute an integrated organizational and technical unit, the information system includes overlapping and interrelated meanings in its elements and functions.(Aladwan, A. Abualloush, S., Bataineh, K. 2017).

Creativity is considered an essential tool for the development and survival of institutions, and the creative trend continues its belief in the importance of reform efforts and administrative and productive development aimed at improving the efficiency and effectiveness of institutions.

Where administrative creativity is seen as the ability to create and find applicable new ideas that can be interested in the development of various administrative processes, and therefore the use of information technology can play an important role in highlighting the creative properties of individuals and even working to enhance them. Given that this technology will provide these individuals with all the means, tools and capabilities they need to test and implement their ideas on the ground.Given that this technology will provide these individuals with all the means, tools and capabilities they need to test and implement their ideas on the ground. Through this highlights the importance of evaluating the current status of the impact of information technology on the level of educational institutions and others in the domain of administrative creativity and this in light of the globalization of technologies.

STUDY PROBLEM AND QUESTIONS:

According to today's global competition, institutions are not built on traditional foundations, but rather with the skills and knowledge they possess of the people working in them, i.e. an institution in an efficient manner that gives it special importance. Therefore, it is necessary to develop a strategy for creativity to provide the appropriate climate for the success of its creative work, and this is not an easy task because the success of the innovation process involves many factors, including those related to the institution and working individuals at different levels of management and technical, and this confirms the need to determine the role of the use of information and communication technology in the extent of success or failure In addition to that, there are factors that could lead to the success of this organization and the achievement of its goals, which are focused on the presence of advanced devices and equipment and software used, which are very multifaceted and multifaceted and multifaceted factors. And since the researcher works as an employee in Al Muwaqqar directorate of Education, she noticed that there is a deficiency in the degree of information technology

employment in achieving administrative creativity among its employees, and hence the study problem is to measure the degree of use of information technology and its impact on administrative creativity among the employees of Al Muwaqqar directorate of Education. This is done by answering the following questions:

The first question: What is the degree of using information technology and its impact on the administrative creativity of the employees of Al Muwaqqar directorate of Education?

The second question: Are there any statistically significant differences at the significance level ($\alpha = 0.05$) in the degree of information technology use and its impact on administrative creativity among the employees of Al Muwaqqar directorate of Education, due to the gender variable: (male, female), and the educational qualification variable: (Bachelor, Postgraduate) ?

PURPOSE OF THE STUDY:

This study seeks to shed light on the role played by information and communication technologies and the extent of their contribution and assistance to individuals and institutions to achieve administrative creativity and upgrading institutions through:

- Identifying the extent to which information technology is used in the education directorates of the Jordanian Ministry of Education.
- Highlighting the importance of information and communication technology in achieving administrative creativity.
- Defining the nature of the relationship between information technology and administrative creativity
- Spreading a culture of creativity in educational institutions and others

THE IMPORTANCE OF STUDY:

The importance of this study lies in:

- Highlighting the impact of the use of information technology on administrative creativity in the directorates of education affiliated to the Ministry of Education in Jordan.
- Attempting to identify the concept of administrative creativity, its levels, and its importance for education directorates and their employees.
- The importance of this study also lies in the application of the results reached in the relevant institutions, which contributes to enhancing the impact of information technology on administrative creativity in them.

TERMINOLOGY OF STUDY:

Information Technology: This concept refers to the set of hardware, software, databases, and networks that Institutions use them in the performance of their various functions and functions (Mubarak, 2004).

Administrative Creativity: It is the ability to devise methods, means and ideas for work, that would improve working conditions, motivate workers' performance and abilities, and increase their talents, to achieve better production and performance goals(Al-Qatawneh, 2000).

THE LIMITS OF THE STUDY:

OBJECTIVE LIMIT: This study determines the degree of information technology use and its impact on the administrative creativity of the employees of Al Muwaqqar directorate of Education.

TEMPORAL LIMIT: The study was conducted on the employees of the Directorate of Education in Al-Muwaqar for the academic year (2022/2023).

-SPATIAL LIMIT: The domain steps of this study were applied in Al Muwaqqar Directorate of Education.

- HUMAN LIMIT: The study was limited to employees working in AlMuwaqqar directorate of Education.

THEORETICAL FRAMEWORK AND PREVIOUS STUDIES:

We live in an age that can rightly be called the age of information. The most important thing that distinguishes this age is the volume of communications that have been achieved between its individuals and people, and these communications are nothing more than a transfer of information from one side to another, and therefore the problem of the age is to provide information, transfer it and dispose of it quickly. and accuracy. Information technology is among the most important tools used by managers to manage the operations of the enterprise and what these processes require of resources and management of change. The basic information systems form an integrated organizational and technical unit. The information system includes overlapping and interrelated meanings in its elements and functions. Without information technology, it cannot work and even the information system can exist.

INFORMATION TECHNOLOGY:

Taking the term technology receives special and increasing attention in the last decades of this century, as technology has become of interest to various institutions in all parts of the world, given the hopes that peoples and countries attach to modern technology and the progress and prosperity that its uses will achieve.

Definition of technology: Technology is defined as the organized effort aimed at using the results of scientific research to develop methods for performing production processes in a broad sense that includes administrative, organizational and social services and activities, with the aim of arriving at new methods that are supposed to be more beneficial for society. (Farihi, 2013)

It can also be defined as a set of knowledge, innovations and applications that revolve around the

technology of an industry and digital technology is an example (Shadley, 2008).

THE IMPORTANCE OF TECHNOLOGY:

There are several reasons that led to the inevitability of technology and the speed and increase of its spread, we present them as follows:

1. Expansion of manifestations and scientific achievements and their spread in all domains in a way that necessitates the need to deal with them without selection or choice.
2. Full certainty of the value of technology because it achieves a positive return that is impossible to reduce or dispense with by continuing or relying on old means as an alternative.
3. What technological means have become a feature of the era; it is impossible to take part of them and leave the other, which imposes dependence on everything that is new and modern from them as it is a necessary and inevitable matter, each in his domain of specialization.
4. The inability to rely on the old traditional means due to either the discontinuation of their production, the end of dependence on them, or their illegality.
5. The spread of the phenomenon of civilizational fascination among individuals and societies in a way that leads to the necessity of imitation and simulation.

DEFINING INFORMATION:

Information is defined as "data that has been processed to provide a useful meaning to its users (Al-Kurdi, 2003). This means that the information represents an addition to knowledge, as it represents a meaningful context and is therefore evaluated according to the extent of its contribution to the addition to the level of knowledge of its users.

It can be defined as data that has been processed and placed in a context that has meaning and benefit to a particular user. Therefore, the information carries an added value above the data as a result of the conversion or operation that took place on it (Nouri, 2003).

IMPORTANT INFORMATION:

There is no doubt that any individual, institution or society seeks to achieve power, and it is rightly considered the motivator and motive behind every human activity, and this power depends on three basic elements: violence, wealth and intelligence, or in other words, money and knowledge (through information), and the most important of these The elements in the next stage of human civilization are knowledge.

Knowledge has become the only source of power of a distinct quality, and knowledge is distinguished from the other two elements of power in that it is infinite and there are no limits to limit it. Do not exceed it, but knowledge is unlimited in effect and we can get more from it and use it for endless purposes, just as knowledge does not perish with use, because it can be used permanently in more than one goal (Al-Sharabi, 2008).

Therefore, the management of the institution should compare the cost of setting up an information system with the returns achieved from it, and its items are the presence of an organizational unit in its organizational structure, which includes a number of workers and technicians, and a number of devices and equipment starting from calculators to computers to tabulate the data and prepare them to be valid for use. In making decisions, in addition to other costs and burdens borne by the institution, which should be less than the returns achieved from using the outputs of that system in making administrative decisions, which are entrusted to decision-making centers and the various administrative levels, as well as if the costs of that system are greater than its returns Absolutely useless of his residence (Arafa, 2011)

INFORMATION FUNCTIONS:

There is no doubt that the information supporting the manager is useful information, and in order for the information to be useful, it should fulfill the following criteria:

1. To arrive at the appropriate time to take the decision, and not before or after it;
2. To be complete.
3. To be suitable.
4. To be brief.

In practical life, we find that information is rarely complete, and managers always act according to the information available to them, but the more available information meets the previous standards, the more it helps to improve the administrative process, and the more it represents a real strategic resource. Whether the organization is an industrial, service or professional company, it must obtain and analyze information, and then act on the interpretation of this information. One of the ideas that can be used from information based on composite data is to reduce business requirements, increase quality, and provide a good understanding of the operations of the organization (Qian, W., Huang, G (2017).

INFORMATION SYSTEM RESOURCES AND ITS COMPONENTS:

-Personnel resources This resource concerns the human element in the information system, including users, programmers, developers, data workers, as well as technical specialists responsible for operating and maintaining the system.

- Hardware resources: They are all physical elements, devices and equipment from the means of input, output, preservation, processing and communication.
- Control procedures: which ensure the implementation of the practical rules of the system, the responsibilities of users, and plans to deal with problems that arise in the operations of the system
-Software resources: which include all and various types of instructions and instructions required in processing data, including groups of operating systems, which direct and control the physical components of the computer, and they are called programs. There are system software, such as operating system programs, that control the computer system. and provides the required support for it (Visit, 2010).

Then application software, which are programs that direct procedures and processes for specific uses of computers by the end user, such as sales analysis software, salary and benefits software, and word processing software.

- Data resources: Data is more than the raw material for information systems. Data is a resource of high value in the organization, so it should be invested and managed effectively in order to secure its usefulness to the end user in the organization. Data can be in any form, including traditional alpha and numeric data, which represent and describe business transactions, events and other elements. .
- Network resources: which include communication technologies and long-range communications, and various types of networks, such as the Internet, internal networks (intranets) and external networks (extranets), which have become important in managing successful electronic business, and commercial operations of all kinds, through its information system in the institution. (Abu al-Samak, 2002)

THE IMPORTANCE OF INFORMATION TECHNOLOGY:

1. To save the time of completion of work and the effort necessary for completion through the presence of a system for storing and retrieving information when needed.
2. To help detect deviations at an early stage with the aim of developing accurate treatments for them.
3. The international competitive environment also reflected on information technology and made it a competitive necessity, as the main reason for the failure of some institutions to achieve their goals became the failure of their management to adopt appropriate information technology, and there are some factors affecting the success of adopting information technology.

ADMINISTRATION CREATIVITY:

The issue of creativity is one of the contemporary issues that have attracted the attention of researchers in our contemporary world, and it has been characterized by complexity and intertwining in terms of its nature and methodology, and scholars and researchers have addressed this issue with research and study for many years.

Creativity plays an important role in achieving the economic and social development of any country, and this role applies to economic institutions, educational institutions and universities. It expresses a new idea, a new product, a new service, a new process, or a new organizational activity, through which you expect. The organization solves a specific problem, fulfills a specific need, or achieves a specific goal.

Administrative creativity: “Creativity is the production of new, rare and different that is useful in thought or action, and thus depends on tangible achievement” (Qarash, 2014).

It can be defined as changing and maximizing the outcome and product of resources and capabilities. Note that it is change that always provides opportunities to achieve the new, so organized creativity consists of research and purposeful analysis of the opportunities offered by a social organization (Al-Khatib and Maayah, 2006).

REASONS FOR ADOPTING CREATIVITY IN INSTITUTIONS:

The changing conditions that institutions live in today, whether they are political, cultural, social or economic conditions, which require institutions to respond to these changes in a creative manner that ensures the survival and continuity of the institution, and it is imperative that technical and technological innovation in the domain of goods and services and methods of production and the shortening of their life cycle for institutions to respond to these Technological wealth and the changes that this entails in the structure of the institution and its management style in creative ways as well. Which enables it to increase its productivity and increase its ability to compete and continue to work, and the need for creativity appears when decision-makers in the organization realize that there is a disparity between the actual performance of the institution and the desired performance, and this disparity urges the management of the institution to adopt a new method of work, which is imposed by changes in The environment of the organization, such as technological changes, provides information about the emergence of a better way of working (Wenger, Albert E., 2000).

CREATIVITY LEVELS:

Three levels of creativity in organizations can be distinguished:

1. Creativity at the individual level: It is the creativity achieved by individuals who possess creative abilities and traits. A lot has been written about the creative personality, and many writers and researchers have dealt with this subject in an effort to identify the traits that distinguish the creative personality from others which is distinguished by it and which is not available in a non-creative person.
2. Creativity at the level of the group: it is the creativity that is achieved or reached by the group (a department, a

department, a committee, etc.) depending on the characteristic of synergy (synergy). This is as a result of interaction among them, exchanging opinion and experience, helping each other and others. The great challenges faced by contemporary institutions require the development of creative work groups.

3. Creativity at the level of the institution: it is necessary to emphasize once again on creativity in contemporary institutions, of all kinds, it is no longer a matter of necessity and urgency, and it is indispensable if you want to stay a matter of luxury or something luxury, and prosperity, She must make creativity her way of working and her daily practice. Licht G. and Moch D. (1997.)

TYPES OF CREATIVITY: CREATIVITY IS DIVIDED INTO THREE TYPES:

1. Technological creativity: It is the kind of creativity that leads to change in institutions, by introducing new technology, and it occurs as a result of using new equipment, a new system, or changes in products and services.
2. Assistive creativity: It is creativity related to the institution's relationship with the surrounding environment, and includes providing services to the community.
3. Administrative creativity: which leads to changes in structures, systems or processes, and is indirectly related to the nature of the activity and basic work of the institution, and is also directly related to the management of the institution, the use of individuals, the distribution of resources, the structuring of tasks, authority and rewards

And administrative creativity is defined as: Reaching new concepts that can be transferred to new policies, regulations and methods that contribute to developing performance in the organization. Rather, some of these concepts are related to the development and organization of the creative process, and the transfer of new ideas to new products, and then speeding up its establishment in new markets (Okil, 2011).

The performance management process is the core of the leader's work, as it is a strategic process within the development and leadership roles in any organization in that it is concerned with the broader considerations in the organization's environment and its strategic direction to achieve its long-term goals, as it is an integrated process, in its exponential integration linking the goals of the institution The teams and the individual in the areas of main capabilities, which in their horizontal integration link the various activities of the institution, as well as linking the various management activities to the processes of improvement and development in a way that creates a fundamental entry point for creativity.

PREVIOUS STUDIES:

Al-Musari (2009) conducted a study aimed at revealing the technical factors in technological innovation, namely (product design, improving the current product, designing and improving the production process, as well as supporting senior management, the company's strategy towards innovation). It relied on a set of data and information from the company's approved records, and the structured interviews were conducted using checklists, personal observation and review of documents for analysis. Regulatory organizations, not showing enough attention to modernization and automation in their products, even though they are striving for excellence by trying to improve their current products and this is not enough. Except with the integration of the five factors, the lack of material and moral support and attribution to the employees' ideas, which leads to the workers' unwillingness to contribute to the development of the company, the necessity of going beyond the traditional methods currently adopted by the company's management and adopting modern technological methods that would achieve savings in time and effort.

Al-Khawaldeh and Al-Hunaiti (2008) conducted a study that aimed to identify the impact of the use of information technology on administrative creativity in Jordanian public institutions. The study reached the following results: There is a statistically significant relationship between the following dimensions (the use of information technology, the nature of the programs used, the suitability of the information of the system used, the integration of information, the productivity of the information system used, and training) and administrative creativity, the absence of a statistically significant relationship between the demographic variables. The results showed that there is no such relationship between these variables and the use of information technology, except for the gender variable.

Al-Qaisi (2004) conducted a study aimed at revealing "the role of information technology in improving the decision-making process. A case study of the Agricultural Credit Corporation in Jordan," The study aimed to identify the role of information technology in improving the administrative decision-making process, and to achieve this goal, the researcher conducted a comprehensive survey For all employees of the credit institution (the agricultural credit of the first, second and third categories, numbering (179), the study reached many results, including: "The role of information technology in improving the decision-making process. A case study of the Agricultural Credit Corporation in Jordan" The study aimed to identify the role of information technology in Improving the administrative decision-making process, and to achieve this goal, the researcher conducted a comprehensive survey of all employees of the credit institution (agricultural first, second and third categories. There are no differences in the attitudes of employees in the institution towards the role of information technology in the effectiveness of the administrative decision-making process, due to gender and experience and educational qualification, while there are differences due to age, job level and training courses.

Ruili (2004) conducted studies aimed at studying the degree of use of information technology in the central

government agencies in Saudi Arabia, in order to provide recommendations and suggestions that could contribute to increasing the use of information technology in these agencies. The study included (384) administrative employees of various levels. The study reached many results, including: a positive relationship between personal traits and the use of information technology, a negative relationship between practical experience and information technology, lack of use of the Internet and the internal network in central devices.

Damour (2003) conducted a study to identify the reality of the use of information technology in industrial companies and its impact on organizational creativity, in order to know the level of organizational creativity in these companies, and the descriptive approach was followed, and to achieve the objectives of the study, a questionnaire was designed to collect data. The researcher concluded the following results: There is a positive relationship between information technology and organizational creativity, and there is a positive relationship between information technology and methods of applying effective creativity in companies, and there is a positive relationship between information technology and the work environment (enterprise evaluation). There is a positive relationship between information technology and administrative facilities.

METHOD AND PROCEDURE:

CURRICULUM: The descriptive survey method was used to suit the nature of the study.

STUDY COMMUNITY: The study population consisted of all employees in Al Muwaqqar Education, who numbered (93) male and female employees.

THE STUDY SAMPLE: The sample of the study consisted of the employees of Al Muwaqqar directorate of Education, which numbered (78) male and female employees, and Table No. (1) Shows the characteristics of the study sample.

TABLE NO. (1): DISTRIBUTION OF THE STUDY SAMPLE ACCORDING TO ITS INDEPENDENT VARIABLES

Variables	Variable levels	Frequency
Gender	Male	49
	Female	29
Qualification	BA	71
	High studies	7
Total		78

STUDY TOOL:

After reviewing the educational literature and school curricula, a questionnaire was designed for the subject and presented to a number of experienced specialists. The final questionnaire was reached in the current situation after making the required modifications by the arbitrators.

VALIDITY OF THE TOOL:

The validity of the tool was verified by presenting it to a group of arbitrators specialized in the domain of Islamic education, and the opinions of the arbitrators were taken into account in the arbitration process of the paragraphs of the questionnaire, so that in its final form it became composed of two axes, namely, information technology and administrative creativity.

STABILITY OF THE STUDY TOOL:

To ensure the stability of the study tool, Cronbach's alpha equation was used, where the total reliability coefficient reached (0.84), which is a good value for the objectives of the study.

TABLE NO. (2): STABILITY COEFFICIENT VALUES FOR THE STUDY TOOL DOMAINS / INFORMATION TECHNOLOGY AXIS AND ADMINISTRATIVE CREATIVITY AXIS

Information technology	Number of paragraphs	Cronbach Alpha	Administrative Creativity	Number of paragraphs	Cronbach Alpha
Hardware and software	8	0.84	Fluency	6	0.89
Networks	6	0.85	Originality	6	0.85
Experience and skills	5	0.83	Flexibility	6	0.80
Overall degree	19	0.84		18	0.84

It is clear from the results of Table No. (2) that the values of the stability coefficient for the axes of the questionnaire ranged between (0.84 to 0.83) for the educational technology axis, which are acceptable values, and came for the axis of administrative creativity between (0.80 to 0.89) and these values are good to achieve the purposes of the study.

STUDY VARIABLES:

INDEPENDENT VARIABLES:

-Gender has two levels: (male, female).

The academic qualification has two levels: (Bachelor's, Postgraduate).

DEPENDENT VARIABLE: It is the response of the study sample to the study tool (the questionnaire).

STATISTICAL STANDARD: The five-point Likert scale was adopted to correct the study tools, by giving each of its paragraphs one degree out of its five degrees (strongly agree, agree, neutral, disagree, strongly disagree),

and they are represented digitally (5, 4, 3, 2, 1), respectively, The following scale was adopted for the purposes of analyzing the results:

From 1- 01.8 very few
-From 1.81- 2.6 Low
-From 2.61- 3.4 medium
-From 3.41- 4.2 large
-From 4.21- 5 very large

-STATISTICAL MANIPULATIONS:

In order to answer the questions, the Statistical Package for Social Sciences (SPSS) program was used, and the optimal statistical method appropriate to the nature of the study will be used.

PRESENTATION AND DISCUSSION OF THE RESULTS:

First: Presentation and discussion of the results related to the first question.

What is the degree of the use of information technology and its impact on the administrative creativity of the employees of Al Muwaqqar directorate of Education?

HARDWARE AND SOFTWARE DOMAIN

TABLE NO. (3): ARITHMETIC AVERAGES AND PERCENTAGES OF RESPONSE FOR THE DOMAIN ITEMS HARDWARE AND SOFTWARE

No	Paragraphs	Arithmetic average	Standard deviation	Rank	Degree
2	The software used is characterized by flexibility, as it is easy to make modifications to it according to the need of the work	2.60	.53	1	Medium
5	The number of computers is proportional to the size and nature of the directorate's work	2.63	.56	2	Medium
1	The software used helps in early diagnosis of problems.	2.67	.59	3	Medium
7	The computer programs used are among the best available technologies.	2.71	.62	4	Medium
8	Available hardware provides fast and accurate processing of the required data	2.73	.66	5	Medium
4	The devices currently available help the Directorate to be distinguished in its work.	2.78	.68	6	Medium
6	Computers are used to perform all the work of the Directorate.	2.81	.71	7	Medium
3	The software used helps to provide a degree of flexibility in the work.	2.83	.73	8	Medium
	Overall score for the hardware and software domain	2.72	.63		Medium

Table (3) shows that the arithmetic averages ranged between (2.60-2.83) for the domain as a whole It came in a medium degree, with an arithmetic average of (2.72). Paragraph No. (2) which states, “The software used is characterized by flexibility, as it is easy to make adjustments to it according to the work need.” The software available in the directorate, on which most of the employees work, is flexible and not complicated by virtue of the technological level enjoyed by the employees in the directorate, which is characterized by simplicity and far from complexity. They are not specialized in programming. Paragraph No. (3) which states that “the software used helps to provide a degree of flexibility in work” came in the last place with an arithmetic average of (2.83) and to a medium degree, and the researcher attributes this result, but the available software The directorate has simple software that is not of high quality, and the staff lacks training on how to deal with it if it is provided. The researcher also attributes this to the great reluctance of the staff to use this software at work.

DOMAIN: COMMUNICATION NETWORKS

TABLE NO. (4): ARITHMETIC AVERAGES AND PERCENTAGES OF RESPONSE TO THE DOMAIN PARAGRAPHS OF THE COMMUNICATION NETWORKS

No	Paragraphs	Arithmetic average	Standard deviation	Rank	Degree
11	The Directorate provides a special e-mail for each employee.	2.63	.52	1	Medium
13	The directorate has a highly efficient network.	2.65	.54	2	Medium
10	The internal electronic correspondence is approved by the Directorate.	2.66	.55	3	Medium
14	The Directorate uses the means of information technology in the management of business.	2.70	.61	4	Medium
12	Communication networks contribute to the efficient exchange of information between the departments and sections of the Directorate.	2.73	.64	5	Medium
9	The Directorate has an effective system in maintaining the security and confidentiality of its information.	2.78	.69	6	Medium
	Overall score for the domain Networking	2.69	.59		Medium

Table (4) shows that the arithmetic averages ranged between (2.63-2.78) for the domain as a whole, It came in a medium degree with an arithmetic average of (2.69). Paragraph No. (11) which states, “The Directorate provides a special email for each employee in it,” came in the first place, with an average of (2.63), and to a medium degree. The researcher attributes that most of the correspondence is between Directorate employees use e-mail to accomplish the required, especially with regard to sending tasks between them, especially correspondence between the Directorate and the Ministry, while paragraph No. 9, which states, “The Directorate has an effective system in maintaining the security and confidentiality of its information” obtained an arithmetic average of (2.78), with a degree The researcher attributes this to the fact that the Directorate does not have a system that maintains the confidentiality of its information. This may be due to the fact that the departments in the Directorate do not have an effective system in maintaining what they have of tasks and decisions, as most employees deal with each other in a very friendly manner that does not It is imperative that there be a confidential information system in the Directorate.

DOMAIN: EXPERIENCE AND SKILLS

TABLE NO. (5): ARITHMETIC AVERAGES AND PERCENTAGES OF RESPONSE TO PARAGRAPHS OF THE DOMAIN EXPERIENCE AND SKILLS

No.	Paragraphs	Arithmetic average	Standard deviation	Rank	Degree
16	The Directorate has qualified technical cadres that contribute to providing the best information required and as soon as possible.	2.67	.57	1	Medium
15	The human competencies in the Directorate are able to use information technology skillfully	2.68	.58	2	Medium
19	The directorate encourages employees with creative and innovative ideas	2.71	.60	3	Medium
18	The directorate has programmers and experts who can develop and adapt software according to.	2.73	.65	4	Medium
17	The information technology department in the directorate trains the employees to be able to use the software efficiently.	2.78	.69	5	Medium
	Total degree of domain experience and skills	2.71	.61	-	Medium

Table (5) shows that the arithmetic averages ranged between (2.67-2.78), for the domain as a whole,it came in a medium degree, with an arithmetic average of (2.71). Paragraph No. (16) states, "The Directorate has qualified technical cadres that contribute to providing the best required information in the fastest time." The researcher indicated that most of the employees in the directorate have the ability to provide the required service in a distinctive way to the recipients of the service, whether the employees among themselves or to the recipients of the service from outside the directorate, because they have sufficient experience in their domain of work and receive the necessary training for each task required of them, while paragraph No. (17) “The information technology department in the directorate trains the employees to be able to use the software efficiently” with an average of (2.78) and to a medium degree the researcher attributes that to the fact that the directorate does not hold special courses to learn the necessary software to deal with it, and that employees may not need software to perform their works.

DOMAIN: FLUENCY

TABLE NO. (6): ARITHMETIC AVERAGES AND PERCENTAGES OF RESPONSE TO THE PARAGRAPHS OF THE DOMAIN FLUENCY

No.	Paragraphs	Arithmetic average	Standard deviation	Rank	Degree
6	Employees use previous experience in dealing with new situations	2.62	.51	1	Medium
2	The directorate develops new methods for solving problems.	2.64	.53	2	Medium
6	Employees use previous experiences in dealing with new situations.	2.66	.58	3	Medium
3	Employees have the ability to persuade with new ideas	2.69	.60	4	Medium
1	The Directorate is constantly looking for new creative ideas.	2.71	.63	5	Medium
5	Employees have the ability to suggest quick solutions to work problems	2.75	.67	6	Medium
	Total fluency score	2.67	.58		Medium

Table (6) shows that the arithmetic averages ranged between (2.62-2.75) for the domain as a whole, it came to a medium degree, with average of (2.67). Paragraph No. (6) states that "employees employ previous experiences in dealing with new situations". The researcher attributed this to the fact that most of the employees in the directorate have a sufficient amount of experience in their domain of work due to their long stay in the department in which he works, as the transfers between departments for employees within the directorate are very few and this In turn, it gives the employees more scope to build a good work experience. Paragraph No. (5) got the last rank, which states that “employees have the ability to suggest quick solutions to confront work problems” with an average of (2.75) and a medium degree, and the researcher consoles that, but the employees do not They have the full authority to suggest the necessary solutions for the lack of the ability to do so, and the heads of departments do not give the employees the powers in this regard and they are limited to them only.

DOMAIN: FLEXIBILITY

TABLE NO. (7): ARITHMETIC AVERAGES AND PERCENTAGES OF RESPONSE TO THE PARAGRAPHS OF THE FLEXIBILITY DOMAIN

No.	Paragraphs	Arithmetic average	Standard deviation	Rank	Degree
10	The directorate’s employees are flexible enough to change their position when they are convinced that they are not correct	2.68	.46	1	Medium
7	The directorate adopts new ideas to develop work smoothly.	2.71	.49	2	Medium
11	The directorate adopts the creative ideas issued by the employees.	2.73	.51	3	Medium
8	The directorate has the ability to see things from different angles	2.76	.54	4	Medium
12	Employees tend to delegate some powers in their work.	2.76	.54	4	Medium
9	The Directorate is characterized by flexibility in implementing laws and regulations.	2.79	.60	5	Medium
	Flexibility domain overall score	2.73	.52		Medium

Table (7) shows that the arithmetic averages ranged between (2.68-2.79), for the field as a whole,it came in a medium degree, with an arithmetic average of (2.73). Paragraph No. (10) states that "the employees of the Directorate are flexible enough to change their position when they are convinced of their inaccuracy" in the first place with an average of (2.68), and in a medium degree, and the researcher attributed that to All employees in the directorate strive to accomplish what is required of them with accuracy, as the goal is to work in a team spirit to accomplish the required accurately, and they have flexibility and the ability to change in a flexible manner, which leads to a smooth workflow. Paragraph No. (9) States that the “Directorate is characterized by flexibility in implementing laws and regulations” in the last rank with an average of (2.79) and a medium degree. The researcher attributes this result to the fact that the Directorate has a set of laws that apply to employees as a whole, but there are some powers granted to a number of employees for the workflow, which It may prevent the application of laws in some cases.

DOMAIN: ORIGINALITY

TABLE NO. (8): ARITHMETIC AVERAGES AND PERCENTAGES OF RESPONSE TO THE PARAGRAPHS OF THE FIELD OF ORIGINALITY

No.	Paragraphs	Arithmetic average	Standard deviation	Degree
16	The directorate develops employees' new ideas about ways to do business.	2.58	.31	Medium
13	Directorate employees act wisely in different circumstances.	2.54	.34	Medium
17	The directorate's staff speak broadly and with great confidence about work-related issues.	2.57	.35	Medium
14	Employees provide creative ideas for business development.	2.60	.37	Medium
15	Employees do their work in a sophisticated style.	2.63	.40	Medium
18	Employees have the ability to suggest logical solutions to work problems.	2.65	.41	Medium
	Total degree of originality	2.85	.36	Medium

Table (8) shows that the arithmetic averages ranged between (2.58-2.65) for the field as a whole, it came in a medium degree with an arithmetic average of (2.85). Paragraph No. (16) which states, "The Directorate develops new ideas for workers about ways of doing business" came in the first place, with an average of (2.58), and in a medium degree, and the researcher consoled that the Directorate It seeks with its knowledge, capabilities and human cadres to work on the development of all its employees towards progress and keeping abreast of all that is new, while paragraph No. (18) states that "employees have the ability to propose logical solutions to confront work problems" to a medium degree, and they are attributed The researcher concluded that the employees, by virtue of their practice and experience in the field of work, have the ability to solve and deal with the problems they face in a good way.

Second: Presentation and discussion of the results related to the second question, which states: "Are there any statistically significant differences at the significance level (α = 0.05) in the degree of information technology use and its impact on administrative creativity among the employees of Al Muwaqqar directorate of Education. It is attributed to the gender variable: (male, female), and the educational qualification variable: (Bachelor, Postgraduate Studies?)

Gender variable (male, female)

To answer this question, a t-test for two independent groups (Independent- Samples- T- Test) was used to indicate differences according to the variable (sex), and the results of Table (9) show that.

TABLE NO. (9):THE RESULTS OF THE (T) TEST FOR TWO INDEPENDENT GROUPS TO INDICATE THE DIFFERENCES TOWARDS THE DEGREE OF INFORMATION TECHNOLOGY USE AND ITS IMPACT ON THE ADMINISTRATIVE CREATIVITY OF THE EMPLOYEES OF AL MUWAQQAR DIRECTORATE OF EDUCATION. THEY ARE DUE TO THE GENDER VARIABLE.

Gender	Number	Arithmetic average	Standard deviation	"T" value	Indication level
Male	49	3.31	.23	.034	.231
Female	29	3.11	.37		

The results in Table (9) indicate that there are no statistically significant differences at the significance level (α = 0.05) due to the gender variable towards the degree of information technology use and its impact on administrative creativity among the employees of Al Muwaqqar directorate of Education. It is due to the gender variable. The researcher attributed the reason for the absence of statistically significant differences that all male and female employees in the monastery have the same tasks in terms of what is required of them to accomplish, and that the regulations apply to all employees in the same way.

-Qualification variable (Bachelor's degree, postgraduate studies)

TABLE NO. (10):TO ANSWER THIS QUESTION, THE ONE WAY ANOVA ANALYSIS WAS APPLIED TO THE INDEPENDENT SAMPLES FOR THE EFFECT OF THE EDUCATIONAL QUALIFICATION VARIABLE, AND ILLUSTRATES THIS

Qualification	Arithmetic average	Standard deviation	F	Statistical significance
BA	2.31	.32	.231	0.10
High studies	1.12	.45		

Table (10) shows that there are no statistically significant differences at the level of significance in the educational qualification variable towards the degree of using information technology and its impact on the administrative creativity of the employees of Al Muwaqqar Directorate of Education due to the educational

qualification variable (bachelor, postgraduate studies), and the researcher attributes this to the nature of Tasks The duties assigned to both categories of graduate degree holders do not have any advantages in performing administrative work over others, and it is not permissible to motivate them materially or morally in a large way for those who hold graduate studies as a kind of motivation for them to achieve the required.

RECOMMENDATIONS

1.The necessity of using and developing technology in the Directorate.
2. Providing a sound and timely information system within the directorate to ensure that it can be used to achieve the directorate's objectives.
3. The use of information technology by the cooperative in its operations, especially the activity of creativity, through which activities can be completed quickly and accurately, which increases the productivity of the latter.
4. Carrying out a process of sensitization and awareness of the importance of creativity activities among employees working in the directorates of education.

REFERENCES

Abu Samak, YusraTawfiq (2002). The Impact of Work Technology in Administrative Units on Information Processing Systems: An Applied Field Study on the Public Sector in Jordan. **Unpublished Master's Thesis**, University of Jordan, Amman, Jordan

Ahmed Mahmoud Al-Khatib, Salem Maayah (2006). **Creative management of universities (modern models),** Jedar, Amman, Jordan

Al-Mosiri, Ali (2009). Information technology and its impact on strategy, organizational structure and performance: An analytical study of Jordanian insurance companies**, unpublished doctoral thesis**, Amman Arab University for Graduate Studies, Amman, Jordan.

Al-Qaisi, Samir (2003). The role of information technology in improving the decision-making process, a case study: the Agricultural Credit Corporation in Jordan. **Unpublished Master's Thesis**, University of Jordan, Amman, Jordan

Al-Qatawneh, Manar Ibrahim (2000). The organizational climate and its impact on creative behavior: a field study for administrative supervisors in Jordanian ministries, **unpublished master's thesis**, University of Jordan, Amman, Jordan

Al-Ruwaili, Anwar Anan (2004). The impact of personal traits on the use of information technology in the central organs of public administration in the Kingdom of Saudi Arabia.**Unpublished Master's Thesis**, University of Jordan, Amman, Jordan

Damour, FayrouzMusleh (2003). The impact of the use of information technology on organizational creativity: an applied study on the Jordanian public shareholding industrial companies. **Unpublished Master's Thesis**, University of Jordan, Amman, Jordan

FaridFahmyZiara (2010**). Introduction to Systems Analysis and Design**, Al Yazurdi, Amman, Jordan

Fouad Al-Sharabi (2008). **Management Information Systems**, Dar Osama, first edition, Amman, Jordan.

Garrash, Afaf (2014). **Presentation entitled: Activating the Information System for Strategic Awareness,** the Fourth National Forum on Information Systems, Strategic Vigilance and Economic Intelligence - between the determinism of interaction or demise - College of Economic Sciences, Business and Management Sciences, Arab University Ben Mehdi.

Licht G. andMoch D. (1997). **Innovation and Information Technology in Services**. Center for European Economic Research

Manal Mohammad Kurdi, Jalal Ibrahim Al-Abed (2003). **Introduction to management information systems,** basic concepts

Mohammad SaeedOkil (2011). **Technological innovation to achieve sustainable development and enhance competitiveness**, Obeikan Publishing, first edition, Jordan

Mubarak, Hamdallah Musa (2004). Information technology and its impact on strategy, organizational structure and performance: an analytical study of Jordanian insurance companies, ***unpublished doctoral thesis***, Amman Arab University for Graduate Studies, Amman, Jordan.

MunirNouri (2012). **Information systems applied in management, University Press, Ben Aknoun, Algeria.**And Applications, New University House, Alexandria, Egypt.

Qian, W., Huang, G (2017). **"Human Capital and Innovation Ability in Medical Education".**An Empirical Study, Eurasia journal of mathematics science and technology education, shanghai university, china.

Seyed Salem Arafa (2011). **Modern trends in change management**, Dar Al-Arya, Amman, Jordan

ShawkyShadly (2008). **The impact of the use of information and communication technology on the performance of small and medium enterprises,** a note presented within the requirements for obtaining a master's degree, specializing in enterprise management. Small and Medium, KasdiMerbah University, Ouargla

Wenger, Albert E. (2000**). Three Essays on the Influence of Information Technology on the Organization of Firms**.DAL-A 60/01.

Aladwan, A. Abualloush, S., Bataineh, K. (2017)**."Impact of Information Systems on Innovation (Product Innovation, Process Innovation)"** - Field Study on the Housing Bank in Jordan .Department of Management Information Systems, Faculty of Administrative Science and Finance, Irbid National, Jordan.