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# CMIS Reality in the Palestinian Ministry of E&HE in Gaza Strip

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**Abstract** — *The purpose of this study is to identify the reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education. The authors used the descriptive analytical method and the questionnaire method to collect the data. (247) questionnaires were distributed on the study sample and (175) questionnaires were collected back with a recovery rate of (70.8).*

*The study showed a number of results, the most important of which are: there are no statistically significant differences between the responses of the sample members on the relationship of the management information systems to the quality of the administrative decisions in the Ministry of Education and Higher Education, due to the variables (gender, scientific qualification, age, career level). Statistics on the relationship of management information systems to the quality of administrative decisions in the Ministry of Education and Higher Education due to variable years of service.*

*The study concluded that: Emphasize that in order for the Ministry of Education and Higher Education to be able to cope with the rapidly changing external environmental changes and the limited time available for the collection and analysis of information, this means that administrative information systems should be used. The need to work on increasing coordination between the various departments of the ministry because of its great impact on the success of the ministry in achieving its objectives. The importance of involving employees in making any changes and taking their suggestions about the system. The need for management to use external information to provide advice in the area of MIS as required.*

**Keywords:** *computerized management information systems, Ministry of Education and Higher Education, Palestine.*

## INTRODUCTION

International and local organizations face many changes and challenges, whether they are industrial or service organizations. These challenges have led to the emergence of new concepts in the management of organizations that seek to achieve the goal of survival and continuity in the world of competition by changing their traditional methods that are not commensurate with the challenges faced by organizations and adopting modern management concepts that enable the organization to deal with the challenges it faces to achieve the best performance level.

The use of these information systems by organizations is efficient and effective. It has become increasingly important for these organizations to play a crucial role in the development of organizations, providing all appropriate information at the most appropriate time for different administrative levels. Improving and developing communication and information flow between these levels, all of which would positively reflect on their overall performance.

Management Information Systems (MIS) are one of the systems that can collect, process, classify, save data, and the information that decision makers need to carry out all administrative functions from planning, organizing, directing, controlling, and working across the organization. Public and private organizations have seen a major shift in information systems, the use of computers, databases and communication networks, in addition to the other technological means that contributed to the existence of an information system depends primarily on the use of the computer.

The issue of decision-making is one of the most important and most influential elements in the lives of individuals and the life of administrative organizations and even in the life of countries, in addition to the importance of this subject, especially in terms of scientific and practical, so highlights the importance of decision-making at the level of administrative organizations. Management is the essence of the work of the administrative leadership, which is the starting point for all the activities and actions taken within the organization, but in relation to and interaction with their external environments, and the cessation of decision making of any kind leads to disruption of work and stop activities and actions and lead to the decay of the Organization and its demise (Al-Ajami, 2010: 255).

Where computerized information systems play an important role in the success of many organizations if information has been used for some time in the decision-making process, the importance of information has increased in the last decades of this century as a result of international competition, automation of administrative and productive processes and large size of economic organizations. It is self-evident that economic organizations have been most affected by the use of information technology. This technology has proven to be able to reduce the costs of production and services by automating all phases of production and

administrative processes, thus saving labor, raw materials and energy, a link between market requirements and design, production and distribution activities in an integrated system (Kassem, 2004: 11). Information systems have changed the management structure and functions, the methods of planning and implementing core business activities, and the roles of information systems in modern organizations have changed. These systems are no longer just computer tools for data recording, processing, information production and reporting, but today integrated work and management systems with workflows at all levels and dimensions (Yassin, 2006: 17).

Effective administrative decisions are those decisions that are based on adequate information of quality and accuracy. This quality is available only with information systems that management relies upon when making decisions and decisions are of great importance to the lives of individuals and peoples. The larger the size of the organization on the other hand, the administrative decision is to choose the best alternative among several alternatives, which represents the best solution to the problem of concern, as scientists and informatics experts have agreed that these systems are directed specifically to support the managerial decision-making (Yassin, 2006: 21).

## **PART I: THE GENERAL FRAMEWORK OF THE STUDY**

### **FIRST- RESEARCH PROBLEM**

Computerized MIS provided a great opportunity for various business organizations to enhance their competitiveness and achieve their desired objectives. They also contributed to the development and improvement of the administrative performance of the business organizations by adopting modern and sophisticated technologies that enable these organizations to draw their policies and directions on realistic data, and making correct administrative decisions. In addition, computerized management information systems lead to the development and improvement of the performance of employees because of their impact on the development of the professional capabilities of the employees and the rapid completion of the tasks and functions assigned to the workers efficiently and with high productivity.

The Ministry of Higher Education has sought to provide education to all members of the society and to improve its quality and calibration at various levels to adapt to the requirements of ICT era and the rapid and progressive developments. In order to be able to make sound and quick decisions and complete these tasks easily and efficiently. In the Ministry of Education they have always sought to use all that helps them to carry out their administrative tasks effectively.

There is a need to continue and enhance the development and upgrading of MIS according to modern technological developments (Abu Sabt, 2005). The need to expand the use of information systems and their role in the planning of operations and administrative decisions (Ahmed, 2007), since there is a close link between management information systems and the process of quality management decision making (Jaradat, and others, 2009).

### **RESEARCH QUESTIONS**

**Q1:** What is the reality of Computerized Information Systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip?

**Q1:** Are there any statistically significant differences in the potential of computerized management information systems in the Ministry of Education due to the demographic variables (gender, age, educational qualification, years of service, job title)?

#### **A number of sub-questions arise from this question:**

**First-** Are there statistically significant differences in the potential of computerized management information systems in the Ministry of Education due to gender?

**Second-** are there any statistically significant differences in the potential of computerized management information systems in the Ministry of Education due to the variable (age)?

**Third-** are there any statistically significant differences in the potential of computerized management information systems in the Ministry of Education due to the variable (educational qualification)?

**Fourth-** Are there statistically significant differences in the potential of computerized management information systems in the Ministry of Education due to the variable (years of service)?

**Fifth-** Are there any statistically significant differences in the potential of computerized management information systems in the Ministry of Education due to the variable (job title)?

### **SECOND - RESEARCH OBJECTIVES**

The study aims at highlighting that achieving two types of objectives: practical goals and scientific objectives:

1. Identify the current reality of computerized MIS.
2. To show differences in respondents' views on the reality of computerized information systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip according to the gender variable.

3. To show the differences in the respondents' views on the reality of computerized management information systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip according to the variable (age).
4. To show differences in respondents' views on the reality of computerized information systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip according to the variable (educational qualification).
5. To show the differences in the respondents' views regarding the reality of computerized management information systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip according to the variable (years of service).
6. To show differences in respondents' views on the reality of computerized information systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip according to the variable (job title).

### THIRDLY- RESEARCH IMPORTANCE

#### ▪ Scientific importance:

1. Presenting a comprehensive and integrated study of the MIS in the Ministry of Education and Higher Education.
2. Develop a conceptual framework that explains many points and elements related to the study variables (MIS) to become a theoretical reference that can be used.
3. To enrich the centers of scientific research, as this study provides a database to help researchers in this area and encourage them to conduct further studies and research in this area.

#### ▪ Practical importance:

1. This study is applied to an institution that has an important and vital role in the Palestinian society and to the relationship of the future industry to the Palestinian society, as it works to draw the attention of the Ministry of Education and Higher Education to the importance of administrative information systems.
2. This study is a qualitative study in Palestine to the knowledge of the researcher, which deals with field study management information systems in the Ministry of Education and Higher Education, which opens the door to other studies to address the same subject in other organizations and institutions.
3. It highlights the nature of administrative information systems in the Ministry of Education and Higher Education and its importance in obtaining administrative decisions that are characterized by efficiency, which raises the level of performance of work in the ministry.
4. The Ministry of Education and Higher Education drew the attention of the Ministry of Education and Higher Education to the importance of management information systems and the importance of their use and to clarify the strengths and weaknesses resulting from their use.
5. This study represents a serious and effective contribution to the identification of management information systems in the Ministry of Education and Higher Education, which is an important topic for decision-makers and policymakers.

### RESEARCH HYPOTHESES

In order to provide an appropriate answer to the questions posed, and the study seeks to test the validity of the following assumptions:

**H1:** is that there are no statistically significant differences at the level of significance (0.05  $\alpha$ ) in respondents' responses to the reality of computerized information systems in the Ministry of Education and Higher Education due to the demographic variables (age, gender, scientific qualification, years of service, job level).

#### It is divided into several hypotheses:

**H1-1:** There were no statistically significant differences at the level of significance (0.05  $\alpha$ ) in the respondents' responses to the reality of computerized administrative information systems in the Ministry of Education and Higher Education due to the variable (age).

**H1-2:** There were no statistically significant differences at the level of significance (0.05  $\alpha$ ) in the respondents' responses to the reality of computerized management information systems in the Ministry of Education and Higher Education due to the variable (gender).

**H1-3:** There were no statistically significant differences at the level of significance (0.05  $\alpha$ ) in the respondents' responses to the reality of computerized administrative information systems in the Ministry of Education and Higher Education due to the variable (scientific qualification).

**H1-4:** There were no statistically significant differences at the level of significance (0.05  $\alpha$ ) in the respondents' responses to the reality of computerized management information systems in the Ministry of Education and Higher Education due to the variable (years of service).

**H1-5:** There were no statistically significant differences at the level of significance (0.05  $\alpha$ ) in the respondents' responses to the reality of computerized administrative information systems in the Ministry of Education and Higher Education due to the variable (functional level).

#### FIFTH- RESEARCH LIMITS AND SCOPE

1. Subject (Academic) limitations: The study was limited in its objective to study the reality of computerized information systems in the Palestinian Ministry of Education and Higher Education in the Gaza Strip
2. Human Limitations: The study was conducted on the employees of the Ministry of Education
3. Place Limitations: The study was conducted in the State of Palestine, and was limited to the Ministry of Education and the Gaza Strip.
4. Time Limitations: the study was conducted, preliminary data was collected, and statistical analysis was performed during the year (2017).

#### SIXTH- RESEARCH TERMINOLOGY

- **Management Information Systems (MIS):** is a system of control and control that specializes in transferring information to administrative levels after processing and updating in order to make decisions in the best way (Al-Salmi and others, 2012), (AL-Abadi and Al-Ardhi, 2012) defined it as a group of human and mechanical capabilities that work with each other under a set of rules and disciplines. It collects, stores, retrieves, transmits and optimizes the information available to the Organization to improve the efficiency of its administrative work.
- **Ministry of Education and Higher Education:** The Ministry is responsible for supervising and developing Palestinian education at all levels in the public education and higher education sectors, and seeks to provide educational opportunities to upgrade it in line with modern developments ([www.mohe.gov.ps](http://www.mohe.gov.ps)).

#### SEVENTH- PREVIOUS STUDIES

- Study of (Abu Naser & Al Shobaki, 2016) aimed at identify the impact of the management requirements on operating of computerized management information systems to improve performance, and discuss the perceptions of respondents to develop the performance of employees in the Gaza Electricity Distribution Company. The most important findings of the study: computerized MIS have a positive impact on the development of performance in the Gaza Electricity Distribution Company systems. The is a statistical significance impact between “the physical, software supplies, human and organizational” requirements for the management and operation of computerized management information systems and performance development in the Gaza Electricity Distribution Company. The research also concluded a series of recommendations: the need to strengthen the company's management interest in the use of computerized management information systems in all its components and elements of being an important variable which contributes to the effect on performance development. It's essential that we develop the infrastructure for information technology in general, and computerized management information systems, in particular for the development of performance. Increased interest in providing the material of equipment and devices used in the computerized management information system requirements. Interest in providing technical inputs to the computerized management information systems through keeping pace with technological means and modern techniques and work on the training of personnel to use those systems. And increased attention to human inputs of computerized management information systems "specialists technicians and end-users" through a variety of disciplines working in the field of computerized management information systems.
- Study of (Abu Naser & Al Shobaki, 2016) aimed at identify computerized management information systems resources and their relationship to the development of performance in the Electricity Distribution Company in Gaza. Several statistical tools were used for data analysis and hypotheses testing, including reliability correlation using Cronbach's alpha, “ANOVA”, Simple Linear Regression and Step Wise Regression. The overall findings of the current study suggested the presence of a statistically significant relationship between resources (physical, software, and human and organizational) for the computerized management information systems and the development of performance in the Electricity Distribution Company in Gaza. The study recommended the following: The need to strengthen the company's management interest in the potential of computerized management information systems and using them in the computerization of all the company's activities. The need to involve workers and users in the design of computerized management information systems and assessment and development process. And strengthen the relationship between users and information systems personnel in the department responsible for the system. It is essential that the company is developing the infrastructure for information technology in general, and computerized management information systems, in particular for the development of performance. Increase interest in providing resources (physical, software, and human and organizational) for the computerized management information systems. The current study is unique by the virtue of its nature, scope and way of implied investigation, as it is the first study at Electricity Distribution Company in Gaza resources explores the status of Computerized management information systems and their relationship to the development of performance in the Electricity Distribution Company in Gaza increasing interest in Computerized management information systems through continuity, keeping pace with technological means and modern techniques.

- Study of (Faraj Allah, 2011) aimed at understanding the role accounting information plays in reducing the uncertainties surrounding the decision making process, preparing a list of criteria that assist management in making administrative decisions under these circumstances, and knowing the nature and strength of the relationship between the quality of information Accounting, circumstances and variables surrounding the decision-making process, and study the characteristics and requirements that must be considered in the accounting information to meet the administrative needs, through the application of the study on commercial banks operating in the Gaza Strip. The study concluded that the accounting information helps decision makers in the commercial banks operating in the Gaza Strip to reduce the uncertainty surrounding the decision making process and thus make rational decisions. And the availability of quality characteristics in the accounting information that is relied upon in making administrative decisions in the circumstances of uncertainty in the commercial banks operating in the Gaza Strip. And the lack of commercial banks to use the scientific method in a large and sufficient in the process of making administrative decisions under uncertain conditions, especially quantitative methods and operations research.
- Study of (Al-Dweik, 2010), aimed at determining the implications of the use of computerized health information systems on the decision-making processes of the European Gaza Hospital. The study reached the following results: The number of administrative and medical respondents who use computerized health information systems in their work (94.5%). This is an indicator of the high rate of use of computerized health information systems in the European Gaza Hospital. The study showed that the computerized health information system currently used in the European Gaza Hospital has a good impact on the fields of medical work And administrative decisions as well The study also showed that there are obstacles that limit the effectiveness of health information systems, the most important of which are: weak financial allocations, lack of adequate training, lack of vision towards the need for comprehensive planning of e-health applications.
- Study of (Al-Qurshi, 2010), which aimed to identify the impact of computerized management information systems on the performance of workers in Wi-mobile company in Yemen. The study reached a number of results, the most important of which are: To a high degree. And that respondents' perceptions of job performance were high. And the impact of the main requirements for the management and operation of computerized information systems (physical, software, and human) in the performance of the job. The study showed statistically significant differences between respondents' perceptions of information systems operating requirements, due to the demographic variables (gender, qualification, experience, level of career). The study showed statistically significant differences between respondents' perceptions of job performance, due to the demographic variables (gender, qualification, experience, level of career).
- Study of (Al-Halabi, 2010), aimed at measuring the appropriateness of computerized management information systems and their impact on decentralization in the Ministry of Finance in the Gaza Strip. The study found that the requirements of computerized administrative information systems (physical, software, human and organizational) were highly efficient from the point of view of the respondents. The study also found no statistically significant relationship on "the impact of computerized administrative information systems on decentralization. Ministry of Finance in the Gaza Strip "due to demographic variables (sex, age, experience, job qualification, scientific level).
- Study of (Al-Omari, 2009) aimed at identifying the impact of Computerized Information Systems on the performance of workers in the Palestinian Telecommunications Company. The study reached several results, the most important of which are: , On the performance of workers in the communications company, there are statistically significant differences between the respondents' perceptions of the subject of the study due to the demographic variables (scientific level, years of experience, place of work, job level), a good level of material inputs and a good level of inputs Human and There is a good level of supplies software and the existence of a good level of regulatory requirements.
- Study of (Abu Omar, 2009) aimed at measuring the effectiveness of computerized management information systems and their impact on the ability of banks operating in Palestine to manage their crises. A six-component measure (speed of access to information, speed of decision making, user satisfaction, adequacy of the system for management levels, response to new changes, information security) is designed to measure the effectiveness of computerized management information systems. The study reached a number of results, the most important of which is the existence of a statistically significant relationship between the effectiveness of administrative information systems and the ability of banks operating in Palestine to manage crises. The study found that 66.6% of the banks' ability to manage crises is explained by the effectiveness of computerized information systems. The system provides a special unit to collect, analyze and store crisis information on databases. The system provides pre-configured solutions to meet anticipated but not required crises.
- Study of (Fransen, 2007) aimed at identifying the problems facing the current information system and how these problems can be solved to meet the needs of decision makers. The study reached a number of results, the most important of which is that the information system in this bank needs to be Improve and develop because they need information about the various aspects of the business that contribute to the process of making and making management decisions. And lack of timely management information due to lack of automation system. And lack of timely reporting by the Department, which adversely affects the decision-making process.

- Study of (Al-Saudi, 2006), which aimed to identify the impact of Computerized Information Systems on the performance of employees in the Social Security Institution. The study reached a number of results, the most important of which is that the perceptions of the respondents regarding the requirements of operating the information system were high. And that respondents' perceptions of job performance were medium. And an impact on key requirements for the management and operation of the computerized information system in performance. (Physical, human, organizational) in functional performance. The study showed that there are statistically significant differences in the respondents' perceptions of the requirements of operating the information system, due to the demographic variables (gender, age, academic qualification, experience, career level).

#### **Comments on previous studies**

It is clear from the previous presentation of the previous studies which dealt with the topics of information systems that there is a difference in the environments in which these studies were applied and different in the nature of the activities of these organizations. It was found that there is a variety of variables used and a variety in the use of statistical methods used to obtain and analyze these studies. In spite of the multiplicity of research and studies, there are clear limitations in the studies that dealt with this subject, to the knowledge of the two researchers, with some agreement whether in the method used in the research or the society in which it was conducted.

#### **The agreements between this study and previous studies were as follows:**

Most of the Arab studies dealt with the management, accounting and human resources systems in terms of their assessment, the reality of their use, their importance, their relationship with decision-making and the impact of their use on performance and productivity. The previous Arab studies were closer to this study as foreign studies have taken the experimental approach to provide high material and technical capabilities available.

This study was agreed in terms of objective with several previous studies such as (Abu Naser & Al Shobaki, 2016), (Abu Sabt, 2005), (Jaradat and others, 2009), and (Ajayi and others, 2007). In terms of society, they agreed with the study of (Ramadan, 2009), and a study (Arafat, 2007).

It has agreed with some studies in terms of methodology such as (Al-Omari, 2009), (Faraj Allah, 2011), (Ramadan, 2009), and (Ajayi and others, 2007).

It has been agreed with some studies in terms of the sample method such as the study (Abu Naser & Al Shobaki, 2016), (Faraj Allah, 2011), In terms of the study instrument, it was agreed with some studies such as (Al-Halabi, 2010), (Al-Dweik, 2010)

#### **The differences were as follows:**

There is a difference in the environments in which these studies were conducted, the different nature of the organizations applied to them, the methodology used, the variety of variables they addressed, and the different objectives. This study differed with some previous studies in terms of the methodology followed (Ramadan, 2009), (Faraj Allah, 2011), which differed in terms of society, such as (Al-Omari, 2009), differed in terms of sample style with (Ramadan, 2009), (Al-Dweik, 2010).

## **PART II: THE THEORETICAL FRAMEWORK OF THE STUDY**

### **Computerized management information systems**

According to a number of literature on the concept of management information systems, many authors have identified computerized management information systems in a variety of ways. (Abed Rabbo, 2013) defines MIS as a set of interlocking or interrelated elements that collect different types of data Information, processing, storage, dissemination and distribution to beneficiaries for the purpose of supporting decision-making and ensuring control over the regulator.

(AL-Abadi and Al-Ardhi, 2012) is a group of human resources and mechanisms that work with each other under a set of rules and disciplines. It collects, stores, retrieves, transmits and optimizes the information available to the Organization to improve the efficiency of its administrative work. (Zu'bi et al., 2012: 99). MIS is a set of interrelated or interrelated elements that collect, process, store, transmit and distribute data and information to beneficiaries for the purpose of supporting decision-making and ensuring organizational control. (Al-Shibli and Al-Nsour, 2009) defined it as a formal method used to provide accurate and timely information to management, which is needed to facilitate the decision-making process.

### **Computerized Information System Components:**

(Al-Abadi and Al-Ardhi, 2012) reported that the MIS components are:

1. **Procedures:** All steps and instructions to follow for the completion of all computer operations. It is the requirements of the information system to identify methods of collecting, cataloging, indexing, organizing and storing information, against numbering methods, identifying files and communication channels in ways of transferring information, And other outputs.
2. **Personnel:** Any system, regardless of the degree of mechanization and mechanism in which individuals must play a key role in it as the supervisor and control of all elements of the system.
3. **Data Base**
4. **Software**
5. **Hardware**

(Robert and David, 1996) also stated that information systems consist of:

1. Devices: Any information system must contain computers, whether personal, medium-sized or large or a network of various computers.
2. Software: The systems by which computers operate are divided into two parts: systems software, which means processes that help to perform operations such as data order and retrieval, and application software that run the organization's data such as payroll, accounting and manufacturing software.
3. Databases: A set of data that is related to each other and organized in a way that is appropriate to the needs and requirements of users.
4. Actions: Processes that describe and arrange the total steps and instructions specified to perform computer operations, called a system path map and explain what to do.
5. Individuals: It is the primary resource for the operation and control of other components. It is one of the most important components of the system, where it analyzes information, develops programs and manages information systems.

Modern information systems use all kinds of technology to operate, process, store and transmit information in electronic form, which is known as information technology, which includes computers, communication devices, networks, fax machines and other equipment. An information system triggers and presents data to users may be an individual or group of individuals who operate the information system outputs themselves as a result of the availability of computers. The outputs of many systems may be routinely used to monitor the performance of the administrative system itself or to simplify the operation of user orders.

### **Benefits of Computerized Information Systems:**

The advantages of management information systems have varied from the point of view of writers and researchers, according to their field of work and specialization, and those who have put their fingerprints on this aspect (Abed Rabbo, 2013), which shows that management information systems offer many benefits to decision-makers.

- Provide information to different administrative levels to assist them in decision making.
- Provide information to all employees to assist them in performing their career activities.
- Assist in the evaluation of the Organization's activities and conduct the oversight process.
- Assist managers in predicting the future for all FAO activities.
- Identify horizontal and vertical communication channels between different administrative units to facilitate data retrieval.
- Save data to make it available to users.

### **Computerized Information System Functions:**

(Al-Shibli and Al-Nsour, 2009) note that the functions performed by computerized management information systems are:

- Identification of information needs.
- Collect the required data from their various sources.
- Process data and set up information for viewing and use.
- Send information to decision-making centers, and to different administrative levels.
- Save and record information.
- Identify the required information, and follow up the change in it until it becomes usable continuously.

### **Objectives of Computerized MIS of the Ministry of Education and Higher Education:**

The most important objectives of the MIS are to provide management and other beneficiaries with information and data, so that MIS helps the Department coordinate its efforts and achieve the objectives of the organization through (AL-Abadi and Al-Ardhi, 2012):

- Assisting managers in carrying out their tasks and tasks of planning, organization, direction and control, based on the success and completion of the information provided by the information systems to all managers, which are appropriate, adequate, accurate and timed.
- Providing many different reports on the status of the current establishment with all their activities and administrative levels at a lower cost and effort while maintaining the appropriate degree of accuracy.
- Work on screening and extract useful information provided to the manager so that he can rely on them to make good decisions.
- Helps to complete mathematical and statistical operations very quickly and accurately.
- Provide managers with a variety of alternatives and ways to complete the work so that the results and implications of taking each of the alternatives to the available decisions appear as if they have already been taken.
- It works to exclude a large part of the uncertainty and certainty of the circumstances surrounding the decision-making, which makes it easy to be guided by the adoption of rational decision with high efficiency and is especially easy after it relied on the few who have experience and knowledge.



**PART III: FIELD STUDY****FIRST- METHODOLOGY OF THE STUDY:**

In order to achieve the objectives of the study, the researchers used the analytical descriptive method, in which he tries to describe the phenomenon of the subject of the study, analyzing its data, the relationship between its components and the opinions that are raised around it, the processes it contains and the effects it causes.

The researchers used two main sources of information:

1. **Secondary sources:** The two researchers dealt with the theoretical framework of the study to the secondary data sources, which include Arabic books, foreign books, references, periodicals, articles, reports, researches, previous studies that dealt with the subject of study, and research in different Internet sites.
2. **Primary Sources:** To address the analytical aspects of the subject of the study, the researchers sought to collect the initial data through the questionnaire as a main tool for study, specially designed for this purpose.

**SECOND- SOCIETY AND STUDY SAMPLE:**

The study population consisted of the administrators of the Ministry of Education and Higher Education - Gaza Strip from the head of department and above. The researchers used the comprehensive inventory method. 217 questionnaires were distributed to the study population. 175 questionnaires were retrieved, (70.8) of the total study population.

**Table 1:** shows the distribution of the study population by ministry and directorates

	Statement	The Study Community From The Head of Department And Above
<b>Distribution of the study population by ministry and directorates</b>	Ministry of Education and Higher Education - Gaza Strip	100
	Directorate of Education West Gaza	21
	Directorate of Education Central Gaza	21
	Directorate of Education East Gaza	21
	Directorate of Education North Gaza	21
	Directorate of Education East Khan Younis	21
	Directorate of Education West Khan Younis	21
	Directorate of Education Rafah	21
<b>Total</b>		247
<b>Distribution of the study society (ministry) by level of employment</b>	Ministry deputies	3
	Director general	15
	Deputy General Manager	11
	Director of the Department	26
	Head of the Department	45
<b>Total</b>		100
<b>Distribution of the study community (Directorate) by level of employment</b>	Director of Education	1
	Technical Deputy	1
	Administrative Deputy	1
	Head of the Department	18
<b>Total</b>		21

Source: Ministry of Education and Higher Education - Gaza

**THIRD: THE STUDY TOOL:**

The questionnaire is intended to "measure what is being set to measure" (Al-Jarjawi, 2010). It is also intended to include the survey of all the elements that must be included in the analysis on the one hand and the clarity of their paragraphs and vocabulary on the other. The veracity of the questionnaire was confirmed in two ways:

1. **Validity From the point of view of the arbitrators:**

The questionnaire was presented to (5) specialized arbitrators in order to ensure the accuracy of the language of the questionnaire, the clarity of the instructions of the questionnaire, the affiliation of the paragraphs to the dimensions of the questionnaire and the validity of this tool to measure the objectives associated with this study. Thus, the validity of the questionnaire was ascertained from the point of view of the arbitrators.

## 2. Internal Validity

The consistency of the internal consistency of each paragraph of the questionnaire with the field in which this paragraph belongs is true. The researchers calculated the internal consistency of the questionnaire by calculating the correlation coefficients between each paragraph of the question domains and the total score of the field itself.

## 3. Structure Validity

Structural honesty is a measure of the validity of a tool that measures the extent to which the objectives of the tool are achieved and shows the extent to which each area of study is related to the overall score of the questionnaire.

Table (2) shows that all correlation coefficients in all the domains of the questionnaire are statistically significant at  $(0.05 \geq \alpha)$ .

**Table 2:** correlation coefficient between the degree of each of the areas of the questionnaire and the total score of the questionnaire

The field	Pearson coefficient of correlation	Probability Value (Sig.)
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	.988	*0.000

\* The correlation was statistically significant at the mean level  $(0.05 \geq \alpha)$ .

## FOURTH- RELIABILITY OF THE STUDY TOOL RELIABILITY

The questionnaire is intended to "give the same results if it is applied several times" (Al-Jarjawi, 2010). It also means "to what degree the meter gives close readings each time it is used, or its degree of consistency, consistency and continuity repeated use at different times". The researchers have verified the validity of the questionnaire by:

### Stability using the formula Alpha Cronbach:

The stability of the study instrument was determined by calculating the correlation coefficients of the axes of the questionnaire using the Alpha Kronbach equation, As shown in the following table:

**Table 3:** Alpha Cronbach coefficient to measure the stability of the questionnaire

The field	Number of paragraphs	Alpha Cronbach coefficient
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education.	34	0.970

It is clear from the results shown in Table (3) that the value of alpha-cronbach coefficient is high at (0.970) for all paragraphs of the questionnaire. This means that the stability coefficient is high.

## STATISTICAL METHODS USED

The questionnaire was dumped and analyzed through the Statistical Package for the Social Sciences (SPSS).

### Normality Distribution Test

The Kolmogorov-Smirnov Test (Kolmogorov-Smirnov Test) was used to test whether or not the data followed natural distribution and the results were as shown in Table 4.

**Table 4:** Demonstrates the results of the normal distribution test

The field	Probability Value (Sig.)
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education.	0.918

It is clear from the results shown in Table (4) that the probability value (Sig) for all fields of study is greater than the level of significance ( $\alpha \leq 0.05$ ). Therefore, the distribution of data for these fields follows the natural distribution, where scientific tests will be used to answer the hypotheses of the study.

The following statistical tools were used:

1. Frequencies & Percentages: To describe the study sample.
2. Arithmetic mean and relative arithmetic mean.
3. The Cronbach's Alpha test, to determine the stability of the resolution paragraphs.
4. Kolmogorov-Smirnov Test (Kolmogorov-Smirnov Test) to determine if the data follow normal distribution.
5. Pearson Correlation Coefficient: To measure the degree of correlation: This test examines the relationship between two variables. It has been used to calculate internal consistency and structural validity of the questionnaire, and the relationship between variables.
6. Test T in the case of a single T-Test to determine whether the average response score has reached the intermediate approval level of 3 or more or less. It was used to confirm the mean significance of each paragraph of the questionnaire.
7. T-Test (Independent Samples T-Test) to see if there are statistically significant differences between two sets of independent data.
8. One Way Analysis of Variance (ANOVA) is used to determine whether there are statistically significant differences between three or more sets of data.

**PART 4: DATA ANALYSIS AND TESTING OF STUDY HYPOTHESES**

Our presentation includes analysis of the data and test of the hypotheses of the study by answering the questions of the study, review the main results of the questionnaire, which was reached through the analysis of paragraphs to find out the general information that included gender, age, qualification, years of service, career level. So, statistical analysis of the collected data was conducted from the study questionnaire. The Statistical Package for Social Studies (SPSS) was used to obtain the results of the study to be presented and analyzed.

**Statistical description of the study sample according to the general information**

The characteristics of the study sample are presented according to general information

**Table 5:** Distribution of the sample of the study according to general information

Personal data		The number	Percentage%	
Gender	Male	150	85.7	
	Female	25	14.3	
Age	Less than 30 years	18	10.3	
	From 30 to less than 40	65	37.1	
	From 40 to less than 45	37	21.1	
	45 years and over	55	31.4	
Qualification	Diploma	10	5.7	
	BA	102	58.3	
	M.A.	55	31.4	
	Ph.D.	8	4.6	
Years of service	Less than 10 years	52	29.7	
	From 10 to under 15 years	53	30.3	
	15 years and above	70	40.0	
Career Level	Directorates	Head of the Department	91	83.5
		Administrative Deputy	7	6.4
		Technical Deputy	8	7.3
		Director of Education	3	2.8
	Ministry	Head of the Department	37	56.1
		Director of the Department	18	27.3

	General Manager / Deputy General Manager	10	15.2
	Deputy Minister	1	1.5
<b>Total</b>		66	100.0

It is clear from table (5) that 85.7% of the study sample is male, while 14.3% is female. This percentage shows that the percentage of males is higher than that of females. This is in accordance with the distribution of the Palestinian labor force, and this is in line with the distribution of the Palestinian labor force in the ministry according to the statistics of the ministry (Statistical Yearbook 2013), also shows that (9.7%) of the study sample aged less than 30 years, (37.9%) between the ages of 30 to less than 40 years, (20.7%) between the ages of 40 to less than 45 years, while (31.7%) aged 45 years and over. It is noted that the age group of 30-40 years is the highest percentage (37.9%). The researchers attribute this to that the target sample is from the head of department and above, and that the largest number of the sample as explained above are heads of departments and this is logical since they obtained these grades as a result of their qualification. They get the position head of department and above after the completion of the first university degree and after a number of years of service, which makes these administrative levels in the category of 30-40, and the age group of 45 years and more come in the second place and this is acceptable, but from 30 years or less represented (9.7%). This is normal and logical as the members of this category are recent graduates and is difficult assume senior positions, while the fourth was 40-45 years old. (5.7%) of the sample of the study have a diploma, (58.3%) a bachelor's degree, (31.4%) a master's degree, and (4.6%) a Ph.D. It is clear from the results that the majority of the sample in the ministry are holders of the bachelor's degree, and that there are a number of graduate campaign is not enough, as evidenced by the fact that the ministry is keen to have its employees scientific qualifications correspond to the requirements of the position, were the right man in the right place. Many of the employees of the bachelor's degree have held senior positions based on the length of their service in the ministry. The diploma, as it is clear, has a low percentage, which indicates that their period of service in the ministry was long. (29.0%) of the study sample had less than 10 years of service, (33.3%) their service ranged from 10 to less than 15 years, while 40.0% worked for 15 years or more. It is noted that the highest percentage of service years of 15 years and above, and this emphasizes the need for the majority of managers with a number of years of service more than 15 years, and this period makes managers have the ability and experience in dealing with the challenges facing them and the ability to resolve, and the ability to make critical decisions with confidence and stability.

In addition, (83.5%) of the employees in the directorates have a professional level as a head of department, (6.4%) an administrative deputy, and (7.3%) a technical deputy, and (2.8%) heads of Ministry of Education. The greatest group was department heads. This is logical according to the structure of the work.

As it is clear that the rate of (56.1%) of those working at the ministry level career head of departments, (27.3%) Department Director, (15.2%), Director General / Deputy Director General, while (1.5%) deputy Minister. Note that the highest category was one of the heads of departments, the researchers attributed that to the presence of departments in a single public administration, and several sections in one department, it makes sense that the number of heads of departments are larger compared to the number of directors of departments, and the numbers of larger departments managers compared to numbers general managers, and therefore, the number of heads of departments compared to the largest high-level posts such as departments or general managers or agents of the ministry directors, at the ministry level, and this is logical, according to the structural work sequence.

**ANALYSIS OF PARAGRAPHS OF THE QUESTIONNAIRE**

The T test was used to determine whether the average response rate had reached the intermediate approval level of 3 or not. The results are shown in Table (6).

**Table 6:** The arithmetic average and the probability value (Sig) for all paragraphs of the reality of the MIS in the Ministry of Education

Item	SMA	Relative arithmetic mean	Test value	Probability Value (Sig.)
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	3.37	67.47	6.56	*0.000

\* The arithmetic average is statistically significant at the level of ( $\alpha \leq 0.05$ )

Table (6) shows the arithmetical mean of all paragraphs of the reality of administrative information systems in the Ministry of Education equal to (3.37) (the total score of 5), ie, the relative arithmetic average is 67.47%, the test value is (6.56) and the probability value ( $\alpha \leq 0.05$ ). Therefore, all the paragraphs are statistically significant at the mean level, indicating that the average

response rate has exceeded the average approval level, which means that there is a high degree of approval by the respondents on all the paragraphs in general. Indicating that there is a good and positive impact of the role of MIS on the quality of administrative decisions, as a result of the fact that the employees of the Ministry of Education and Higher Education of the study society use the system in the decision-making process. Most of the work performed by the employees in the ministry is clearly dependent on administrative information systems. This shows that the efficiency of these systems is one of the most important and influential reasons for the quality of administrative decisions. (2009), (Al-Omari, 2009), (Al-Dweik, 2010), (Bahloul, 2011) and (Abu Omar, 2009).

**Test the hypotheses of the study**

**H1 Test:** is that there are no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) in respondents' responses to the reality of computerized information systems in the Ministry of Education and Higher Education due to the demographic variables (age, gender, scientific qualification, years of service, job level).

The "T for two independent samples" test was used to determine whether there were statistically significant differences, a teacher test that was suitable for comparing two sets of data. The "monotonous" test was also used to determine if there were statistically significant differences. This test is a teacher fit to compare 3 or more averages.

**H1-1 Test:** There were no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) in the respondents' responses to the reality of computerized administrative information systems in the Ministry of Education and Higher Education due to the variable (age).

Of the results shown in Table (7) shows that the probability value (Sig) corresponding to the "Mono-variance" test is greater than the ( $\alpha \leq 0.05$ ) for all domains and fields combined. Thus, the study of these areas and areas combined together are attributed to age. The researchers attribute this to the fact that the ministry is represented by its senior management who cares about the employees by holding continuous courses for all its employees, especially departmental and administrative officials, to deal with the computer and its systems. This will make all employees able to deal with administrative information systems of all ages. The employee is an obstacle to his ability to deal with MIS and access to quality in administrative decisions. This is different with the study of Al-Omari (2009) in the presence of differences in the perceptions of the respondents about the MIS due to the variable age.

**Table 7:** Results of the "Single Contrast" Test - Age

The field	Averages				Test value	Probability Value (Sig.)
	Less than 30 years	From 30 to less than 40	From 40 to less than 45	45 years and over		
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	3.12	3.42	3.38	3.39	0.742	0.529

**H1-2 test:** There were no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) in the respondents' responses to the reality of computerized management information systems in the Ministry of Education and Higher Education due to the variable (gender).

Of the results shown in Table (8) shows that the probability value (Sig) corresponding to the T test for two independent samples is greater than the ( $\alpha \leq 0.05$ ) for all domains, and therefore it can be concluded that there are no statistically significant differences between these areas and areas combined together are attributed to gender. The two researchers attribute this to that both sexes are doing the same work as they were assigned to the fullest, without both sexes male or female any aspect that would impede the work. Both sexes perform the same work depending on the same requirements of the MIS, Or female is not important as much as the official intelligence and strategic dimension, which helps to take advantage of information as required and access to decisions characterized by quality that achieve the objectives of the ministry. These findings were consistent with some studies (Al-Omari, 2009), which showed that there were no differences in respondents' perceptions of gender management information systems.

**Table 8:** Results of the test "T for two independent samples" - gender

The field	Averages	Test	Probability Value
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	Male	female	value	(Sig.)
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	3.38	3.35	0.142	0.887

**H1-3 Test:** There were no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) in the respondents' responses to the reality of computerized administrative information systems in the Ministry of Education and Higher Education due to the variable (scientific qualification).

Of the results shown in Table (9) shows that the probability value (Sig) corresponding to the "Mono-variance" test is greater than the ( $\alpha \leq 0.05$ ) for all domains and fields combined. It can therefore be concluded that there are no statistically significant differences between the mean sample estimates. The study points out those management information systems are easy to learn and use through simple courses and training for the employee who can deal with the system. The acquisition of higher certificates is not a criterion for distinguishing employees from others in their ability to Dealing with the system and its outputs. These results agreed with some studies as a study (Arafat, 2007), while conflict with a study (Al-Omari, 2009).

**Table 9:** Results of the "Single Contrast" test - Scientific qualification

The field	Averages			Test value	Probability Value (Sig.)
	Diploma	BA	Postgraduate		
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	3.44	3.37	3.37	0.033	0.968

**H1-4 Test:** There were no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) in the respondents' responses to the reality of computerized management information systems in the Ministry of Education and Higher Education due to the variable (years of service).

Of the results shown in Table (10) shows that the probability value (Sig) corresponding to the "Mono-variance" test is greater than the ( $\alpha \leq 0.05$ ) of the fields "Support and attention of senior management, physical requirements available for the use of computerized MIS" There were no statistically significant differences between the mean estimates of the sample of the study on these two fields due to the years of service, and for the other fields and fields combined it was found that the probability value (Sig) is less than the significance level ( $\alpha \leq 0.05$ ). Thus it can be concluded that there are statistically significant differences between the averages of the sample of the study sample on these areas and the fields combined due to the years of service, for the benefit of those who have served for 15 years or more. The researchers attribute this to the fact that the years of service have an effective role in the efficiency and ability of the employee to perform his duties as required, because during this period he received many courses besides experience, which had an important impact in developing his skills and abilities and different from one employee to another depending on the years of service with the study of (Al-Omari, 2009).

**Table 10:** Results of the "One Way ANOVA" test - years of service

The field	Averages			Test value	Probability Value (Sig.)
	Less than 10 years	From 10 to under 15 years	15 years and above		
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	3.12	3.45	3.50	4.442	*0.013

\* The difference between the averages is statistically significant at the level of significance ( $\alpha \leq 0.05$ ).

**H1-5 Test:** There were no statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) in the respondents' responses to the reality of computerized administrative information systems in the Ministry of Education and Higher Education due to the variable (functional level).

Of the results shown in Table (11) shows that the probability value (Sig) corresponding to the T test for two independent samples is greater than the ( $\alpha \leq 0.05$ ) for all domains and fields combined. Thus, it can be concluded that there are no statistically significant differences between the averages of the sample of the study sample on these areas and the domains combined due to the functional level. The researchers attribute this to the fact that management information systems have an important role in the success of any work, and the employee understands the importance of these systems and the need for them to complete his work as quickly and efficiently as possible. These systems are used in all sections and departments of the ministry regardless of the job title. Administrative levels, this is consistent with the study of (Ramadan, 2009), and varies with the study (Al-Omari, 2009).

**Table 11:** Results of the "T test for two independent samples" - Career level

The field	Averages		Test value	Probability Value (Sig.)
	Directorates	Ministry		
The reality of computerized Management Information Systems in the Palestinian Ministry of Education and Higher Education	3.32	3.47	-1.332	0.185

**PART V: RESEARCH RESULTS AND RECOMMENDATIONS**

**FIRST- RESEARCH RESULTS**

After the statistical analysis of the study tool, the following results were obtained:

1. The results of the study showed that there are no statistically significant differences between the responses of the sample members on the relationship of the administrative information systems to the quality of the administrative decisions in the Ministry of Education and Higher Education, due to the variables (gender, scientific qualification, age,
2. The results of the study showed that there are statistically significant differences in the relation of management information systems to the quality of administrative decisions in the Ministry of Education and Higher Education due to the variable years of service.

**SECOND- RESEARCH RECOMMENDATIONS**

The following is a set of recommendations based on the results of the study, these recommendations are:

1. Emphasize that in order for the Ministry of Education and Higher Education to be able to cope with the rapidly changing external environmental changes and the limited time available for the collection and analysis of information, this means that administrative information systems should be used.
2. The need to work on increasing coordination between the different departments and departments of the ministry because of its great impact on the success of the ministry in achieving its objectives.
3. The importance of engaging employees when making a change and taking their suggestions about the system.
4. Management should use external entities to provide advice in the area of MIS as required.

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