

The Effectiveness of Administrative Performance and Its Impact on the Use of Decision Support Systems in Universities: Al-Azhar University in Gaza as a Model

Mazen J. Al Shobaki

Faculty of Administrative and Financial Sciences, Israa University – Gaza, Palestine

mazen.alshobaki@gmail.com

Abstract: The aim of the research is to identify the effectiveness of administrative performance and its impact on the use of decision support systems in universities: Al-Azhar University in Gaza as a model. The research was applied to 61 academics in administrative positions at Al-Azhar University in Gaza. The descriptive analytical approach was used and secondary data was obtained through a survey list that was distributed to the research community using the comprehensive inventory method, where the questionnaire was distributed to all members of the study community and it was retrieved 40 questionnaires with a recovery rate of 65.6%. The research concluded with a set of results, the most important of which is the existence of a direct statistically significant relationship between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza. And there is a statistically significant effect of the effectiveness of administrative performance in using decision support systems at Al-Azhar University in Gaza. And that there are no statistically significant differences between the averages of the respondents' answers due to (Age Group, Academic Degree, Number of Years of Service, and Job Title). The research reached a set of recommendations, the most important of which is the importance of universities reformulating the procedures, the nature of work, and the organizational structure in those universities in a way that reduces centralization, and avoids duplication, routine, and repeated control, which contributes to improving performance and achieving goals. He urged universities to involve their employees when developing their plan, by communicating with all faculties and their departments and holding brainstorming sessions, workshops and periodic meetings with all departments. And the need for the higher management of universities to pay attention to decision support systems, and to make intensive and continuous efforts to support and enhance efforts aimed at enriching and strengthening the role of decision support systems in universities.

Keywords: Decision Support Systems, Effectiveness of Administrative Performance, Palestinian Universities.

Introduction

Challenges at the global and regional levels have brought about a radical and accelerated transformation in all aspects of life, in addition to the information and communication technology revolution that led to the abolition of distance, time and space barriers and the availability of a huge amount of information to decision makers (Gad Al-Rab, 2010: 155). Decision support systems are one of the important types of computer-based information systems that are becoming increasingly used in decision-making. The decision support system in addition to situations that occur in a rare or infrequent manner (Gad Al-Rab, 2009: 80-81).

Problem Statement

Through the researcher's review of a set of previous studies related to the topic of research, including the study (Abu Taym, 2015), which confirmed that Palestinian universities have a clear organizational structure that supports decision support systems, and since universities in Palestine seek to develop, they sought to study skills and capabilities and competencies that enable it to deal with current and future requirements. By informing the researcher, and based on the above, the research problem is determined by the following questions:

Q1-: Is there a relationship between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza?

Q2-: Is there an effect of the effectiveness of administrative performance on the use of decision support systems at Al-Azhar University in Gaza?

Q3-: Are there differences between the averages of respondents' opinions about the effectiveness of administrative performance and its impact on the use of decision support systems in universities: Al-Azhar University in Gaza as a model attributed to personal and organizational variables (age group, academic degree, years of service, job title)?

Research Objectives

The main objective of the study is to identify the impact of the effectiveness of administrative performance on the use of decision support systems in Palestinian universities, and it seeks to achieve the following set of goals:

1. Shedding light on the effectiveness of the current systems used in producing information needed for decision-making in universities.
2. Shedding light on the concept and reality of the effectiveness of administrative performance in the light of recent technological developments, which can be adopted by higher education institutions.
3. Draw the attention of decision makers and officials to the importance of paying attention to decision support systems, so that they can deal with the rapid changes on the various aspects of modern approaches that have proven successful in developing and distinguishing higher education institutions.

4. Statement of the importance and need of the university for the effectiveness of administrative performance associated with decision support systems, as one of the entrances to improving academic and administrative services and raising their efficiency.
5. Disclosure of whether there are statistically significant differences between the average ratings of members (academics in an administrative position) on the research axes according to (age group, academic degree, years of service, job title).
6. Presenting a number of recommendations of interest to decision makers to enhance the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza.

Research Importance

The study derives its importance from its subject, and aspects of the study's importance can be determined from the contribution and expected addition from it, as follows:

1. This study sheds light on the impact of the effectiveness of administrative performance on the use of decision support systems in universities, which contributes to developing and increasing the efficiency of universities.
2. The study represents a call to enhance the effectiveness of administrative performance in universities. The current study serves as a feedback, the results of which benefit from identifying what contributes to strengthening aspects of strength and avoiding weaknesses.
3. Providing the senior management of Palestinian universities with documented recommendations and proposals derived from the field study that help in improving the effectiveness of administrative performance on the use of decision support systems at Al-Azhar University in Gaza.
4. The study provides a scientific reference that can guide university employees, especially the higher administrative levels, to face challenges in making strategic decisions.

Research hypothesis

In order to provide an appropriate answer to the study questions raised, the study seeks to test the validity of the following hypotheses:

H₀₁: There is a statistically significant relationship at the level of significance ($\alpha \leq 0.05$) between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza.

H₀₂: There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) for the effectiveness of administrative performance in using decision support systems at Al-Azhar University in Gaza.

H₀₃: There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average responses of the respondents about the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza due to personal and organizational

data (Age Group, Academic Degree, Number Of Years Of Service, Job Title).

Research Limits and Scope

Each study, whether scientific or theoretical, has objective limits, human limits, institutional limits, spatial limits, as well as temporal limits, and they can be clarified as follows:

1. **The Objective (Academic) Limitation:** The study was limited in its objective aspect to studying the effectiveness of administrative performance and its impact on the use of decision support systems in universities: Al-Azhar University in Gaza as a model, and presenting proposals that contribute to activating the role of decision support systems in universities.
2. **Human Limit:** The study was conducted on academic staff in an administrative position (University President, Vice President, Assistant President of the University, Assistant Vice President of the University, Deans, Assistant / Vice Dean, Directors, Deputy Director, Head of Department) in the university under study.
3. **Institutional Limitation:** The study was conducted on Al-Azhar University.
4. **Spatial Limit:** The study was conducted in the State of Palestine, specifically in Gaza Strip, where the researcher designed a questionnaire and distributed it to academic workers in an administrative position.
5. **Time Limit:** The study was conducted, primary data was collected, and statistical analyzes were conducted in the year 2022.

Limitations of The Study: The application of this study was limited to the Palestinian universities operating in Gaza Strip, and did not include universities in the West Bank, due to the difficulty of communication, the Israeli closures and the inability to reach the West Bank, and thus this limits the generalization of the results to all Palestinian universities.

Previous Studies

- Study of (Al Shobaki, 2022) aimed to identify administrative communication and its impact on improving the efficiency of decision support systems in universities. Society and Sample of Research: The research was applied to Islamic University- Gaza, and the sample of the academic research consists of administrative positions at Islamic University- Gaza, totaling 87 employees. Research Methodology: A descriptive and analytical approach was used and secondary data was obtained through a questionnaire that was distributed to the research community using the comprehensive enumeration method. The questionnaire was distributed to all members of the study population, and 65 questionnaires were retrieved with a recovery rate of 79.3%. Research Results: The research concluded with a set of results, the most important of which are: The results confirmed the existence of a positive statistically significant relationship between administrative communication and improving the efficiency of decision support systems at Islamic University- Gaza. The results showed a statistically significant effect of administrative

- communication in improving the efficiency of decision support systems at Islamic University- Gaza. The results confirmed that there are statistically significant differences between the averages of the respondents' answers about administrative communication and improving the efficiency of support systems at Islamic University- Gaza that are attributed to the job title. The results showed that there are no statistically significant differences between the average of the respondents' answers about administrative communication and improving the efficiency of support systems at Islamic University- Gaza decision, due to (age group, academic degree, and years of service).
- Study of (Martins et al., 2019) aimed to clarify how a decision support system can be designed to improve the internal resource allocation process in public universities in Brazil. There is currently no type of decision support system for such a problem. To do this the analysis was performed by identifying the general model from the Brazilian Ministry of Education and the models from each federal university, finding the similarities between each model, and dividing the models into categories, according to the similarities. The most important results of the study were a model for allocating the resources of the decision support system. It aims to contribute to the decision problem of how to properly allocate the resources faced by public universities in Brazil, make safer and more reliable decisions, and strive to reduce uncertainties and maximize their outcomes.
 - Study of (Mir Anamul and Daniel, 2019) which aimed to choose the appropriate supervisor for the Ph.D. is a very important step for the student. This paper introduces a multi-criteria decision support system to assist students in making this choice. The most important results of the study were that the system uses a hybrid method that first uses a vague analytical hierarchy process to derive the relative importance of the specific criteria and the sub-criteria that must be taken into account when choosing a supervisor. An information retrieval-based information similarity algorithm is then applied to retrieve relevant candidate profiles based on the student's research interest. The selected profiles are then rearranged based on other relevant factors selected by the user, such as publication history, research grant history, and collaboration history. The ranking method objectively evaluates potential supervisors based on various metrics defined in terms of detailed knowledge of the scope, making part of the decision-making process automated. In contrast to other existing works, this system does not require the participation of the professor and no subjective procedures are used.
 - Study of (Lu, 2019), which aimed to manage the financial business of colleges and universities, and develops a financial participation platform centered on "cloud computing", and re-establishes the financial accounting process, financial institutions, staff allocation, financial payment process, and fund settlement process, the system can deal With a wide range of great financial data. The most important results of the study were that the big financial statements led to an increase in complex spending, which led to the inability of employees to deal with the financial statements, and the re-engineering of the financial system for colleges and universities was imminent, and it was necessary to use completely new thinking in the implementation of comprehensive reforms.
 - Study of (El Talla, S. A., et al., 2018), which aimed to identify the organizational structure and its relationship to the prevailing style of communication in Palestinian universities. The researchers used the descriptive analytical method through a questionnaire distributed randomly to workers in Palestinian universities in Gaza Strip. The study was conducted on a sample of (274) administrative employees from the three universities, and the response rate was (81.87%). The study found that there is great satisfaction with the nature of the organizational structure in Palestinian universities from the point of view of the administrative staff, as it reached 68.05%. And that there is a high level of the prevailing communication style from the point of view of the administrative staff, as the percentage reached (71.32%), there is a direct relationship between the nature of the organizational structure and the prevailing style of communication, and the absence of differences between the sample members according to the gender variable in their awareness of the nature of the organizational structure and the prevailing style of communication, And the absence of differences in the employees' perception of the nature of the organizational structure and the prevailing communication style according to the changing age. There are statistically significant differences in the perception of the nature of the organizational structure and the pattern of communication according to the educational qualification variable in the organizational structure, and the pattern of communication. The differences were in favor of diploma holders compared to other practical qualifications. There are no differences in the employees' perception of the nature of the organizational structure and communication style according to the variable years of service. There are no differences in the employees' perception of the nature of the organizational structure and communication style depending on the variable of the job level (manager, department head, and administrative official). The absence of differences in the employees' perception of the nature of the organizational structure and communication style according to the variable of the workplace. And there are differences in the employees' perception of the nature of the organizational structure and the pattern of communication according to the university in which they work. And that there are statistically significant differences between the Islamic University and Al-Azhar University, and the nature of the organizational structure

and communication style in favor of the Islamic University. And that there are statistically significant differences between Al-Azhar University and Al-Aqsa University in the prevailing mode of communication in favor of Al-Azhar University.

- Study of (El Talla, S. A., et al., 2018)), which aimed to shed light on the nature of the organizational structure prevailing in public universities in Palestine and to identify the most important differences in the perceptions of workers in Palestinian public universities according to demographic and organizational variables. The researchers used the descriptive analytical method through a questionnaire distributed randomly to a sample of Al-Aqsa University employees. The study was conducted on a sample of (80) administrative employees from Al-Aqsa University. The study found that there is a medium degree of satisfaction with the nature of the organizational structure prevailing in the Palestinian public universities from the point of view of the administrative staff, with a percentage of (63.11%). And the absence of differences between the sample members according to the gender variable in their perception of the nature of the prevailing structure at Al-Aqsa University, and the absence of differences in their perception of the nature of the organization based on the age variable. And that there are statistically significant differences in the perception of the elements of the dependence of the organizational climate on the variable of scientific qualification in their perception of the nature of the organizational structure in favor of holders of a bachelor's degree, and the absence of differences in their perception of the nature of the organizational structure depending on the changing years of service, and the absence of differences in their perception of the nature of the organizational structure according to Variable job level (manager, department head, administrative manager).
- Study of (Al Shobaki and Abu Naser 2017) study, which aimed to identify the degree of using the capabilities of decision support systems in Palestinian higher education institutions, Al-Aqsa University in Gaza - a case study. The study used the descriptive analytical approach, and the researchers used the questionnaire tool to collect data, and the researchers used a stratified random sample distributed (150) questionnaires over the study population, and (126) were obtained again by 84%. The study showed that the most important results are: that the senior management supports the existence of decision support systems and that there is approval from the respondents on the paragraphs of using the capabilities of decision support systems in general. And that there are no statistically significant differences between the averages of the respondents' answers about the degree of use of the capabilities of decision support systems attributed to personal data.
- Study of (Abu Naser and Al Shobaki, 2016), which aimed to enhance the use of decision support systems and re-

engineering operations and business - an applied study in Palestinian universities in Gaza. This study was applied to the Palestinian University in Gaza Strip, Palestine. This research is based on decision support systems. Re-engineering the second dimension of operations and business was developed by the authors. The control sample was (500). Several statistical tools were used to analyze the data and test hypotheses. The results indicate that there is no statistically significant effect on senior management support to enhance the use of decision support systems in re-engineering operations and business in the universities of Gaza Strip. Operations and business in Palestinian universities in Gaza Strip, and there are statistically significant differences between the average estimates of the study sample for the impact of re-engineering decision support systems for operations and business in Palestinian universities in Gaza because of the gender variable in favor of males, and the presence of differences for the age variable with respect to the field of "support for senior management to use support systems" decision" by respondents (45-55 years) and (55) years and over, and there are differences in the variable of education level with regard to the field of "higher management support for the use of decision support" by respondents with a master's degree, and there are differences in the variable of the name of university systems and that each The field of study in favor of the Islamic University, Al-Azhar University, and Al-Aqsa University, and the presence of differences in the variables of years of service in the field of "Support for senior management to use decision support systems" by the researcher Thin ages (15-20) years and 21 years and over. The present study is unique by its nature, scope, and method of implied investigation.

- Study of (Al Shobaki and Abu Naser, 2016), which aimed to explain the requirements for the application of decision support systems in Palestinian higher education institutions - an applied study on Al-Aqsa University in Gaza. The researchers used the descriptive and analytical method. The study population is the faculty members of Al-Aqsa University in Gaza. The researchers used the random sample method. 150 questionnaires were distributed to the study population and 126 answers were obtained with a recovery rate (84%). The results of the study showed the following: The approval of the sample members on the requirements for implementing decision support systems in general. The approval rate for "supporting senior management for the use of decision support systems" was (62.60%). While the percentage of approval of "the possibilities of using decision support systems" was (69.03%). Finally, the level of approval of the type of decision support systems used was 69.73%. The results showed that there were no statistically significant differences between the respondents' responses to the requirements for applying decision support systems due to demographic variables (gender, age, qualification, and years of service).

- Study of (Abu Naser and Al Shobaki, 2016), which aimed to identify the use of decision support systems as an input to re-engineering processes in Palestinian universities in Gaza Strip. The researchers used the questionnaire method to collect data, and the researchers used a stratified random sample by the random method, and (350) questionnaires were distributed to the research sample, and (312) questionnaires were collected (89.1%). The results of the study showed that the most important of them are: There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) for the physical and human requirements. Technical and regulatory requirements. The results also showed that there were statistically significant differences between the average estimates of the study sample on the use of decision support systems as an entry point for re-engineering operations in Palestinian universities in Gaza Strip due to the gender variable in favor. Male requirement. The results also showed that there were differences in the name of the university variable and each field of study in favor of the Islamic University, then Al-Azhar University, and then Al-Aqsa University.
- Study of (Al Shobaki and Abu Naser, 2016), which aimed to identify decision support systems and their role in developing strategic management in universities - a case study: The Islamic University of Gaza. The descriptive approach was used where a questionnaire was developed and distributed to a stratified random sample. (230) questionnaires and (204) questionnaires were distributed with a response rate of (88.7%). The most important results of the study: There is a positive statistically significant correlation between decision support systems and strategic management at the Islamic University of Gaza, and this shows that there is a role for decision support systems in developing strategic management. The senior management is convinced of the importance of strategic management for the organization, and this conviction prompts a clear understanding of the process of developing strategic management and thus led to the commitment to this process to improve its performance. There is an impact on strategic management of the capabilities available to use decision support systems, and the type of decision support systems used, while there is little impact on top management support for the use of decision support systems. The results also showed that there were no statistically significant differences between the averages of the respondents' answers due to personal data.

Commenting On And Analyzing Previous Studies:

By reviewing previous studies, the researcher found that there is an increasing interest in studying the effectiveness of administrative performance as well as studying decision support systems, and the current study has concerned that all studies are modern to represent the reality in our time, which is characterized as a rapidly developing and changing reality.

Theoretical Framework

First - The Conceptual Framework for the Effectiveness of Administrative Performance

The success of educational organizations and institutions and increasing their effectiveness is linked to improving their overall performance, as good performance is a basic criterion for judging the quality of the institution, its ability to compete and the quality of its outputs. He seeks to reach it. Since all work, regardless of its types and responsibilities, involves duties and responsibilities that require achievement, some management scholars look at performance as: a reflection of the individual's success or failure in achieving the goals related to his work, whatever the nature of this work. (Gowett & Rothwell, 1998, 2).

Achieving the effectiveness and success of performance in any work requires that it be carried out in the light of standards and foundations that follow it. Performance standards are considered, as indicated by Archie and James (1994, Archie and James) "a necessary and important process as it allows the organization to understand the extent of its compatibility with measurement indicators and enables it to retrieve data and evaluate information Performance standards are defined as the level of acceptable satisfaction with performance".

Carpinetti & Martins (2001) indicated that "the development of administrative performance is a continuous requirement, and it refers to the continuous improvement of performance and the continuous pursuit of achieving customer requirements through a set of processes through which the reduction or limitation of activities that do not add important value to administrative operations.

There is no doubt that the development of administrative performance depends on the skills and aspirations of those involved in the educational process inside and outside the school, and also depends on directing the activity of individuals in the school towards change and reform, and educational reform depends on the flexibility of the educational system in absorbing those strategies.

It is clear from the foregoing that the development of administrative performance in schools requires that administrative performance be a codified process with foundations and rules that have clear dimensions, elements and criteria in the light of which evaluation is carried out, and providing administrative systems that support the development of performance, by providing effective participation among the elements of the administrative process in planning and decision-making. The development of communication in the school environment, the formation of a network of human relations, the provision of modern technologies for management and training in them.

Noting that the latest management systems that use Internet-based tools, technology, and various electronic management systems cannot compensate for the lack of a real performance culture, unless managers are willing to conduct a fair performance evaluation of their employees and take action accordingly and employees are willing to accept doing so. Tools as a development will fail, and the evaluation process will not reveal credibility and have an impact on performance

only when employees and managers alike take the performance evaluation process seriously and recognize its usefulness.

The Concept of Developing Administrative Performance in Academic Institutions

In light of the importance of the role of educational institutions and their sensitive and influential goals in achieving social development and economic development, the importance came from many countries of the world by developing the dimensions and components of the concept of performance development, which contributes to the transition to cases compatible with the incomes and concepts of modern educational management in an effort to build a modern model for educational institutions. It takes the reasons for advancement and progress and contributes to achieving social welfare and raising the level of awareness for all members of society.

The process of developing performance in educational institutions is one of the modern topics that have taken upon themselves the advancement of the educational process in all its stages and levels, as these institutions focus on directing efforts towards the different areas of the components of the educational process, both in the stages before, during and after the process.

Also, the objectives of performance development in educational institutions work to take into account everyone who contributes or relates to education and its inputs and outputs so that its level achieves the objectives of the administrative development process and brings about the required change for the better.

Second - Conceptual Framework of Decision Support Systems

Decisions are one of the basic functions of managers, as these decisions help the organization's growth and sustainability. They are the primary tool that is used to create opportunities, enhance the organization's strengths, confront internal and external challenges, and overcome weaknesses in the organization, where the success of organizations is built on the right administrative decisions. That you take.

Information technology is the beating heart of various business organizations, as it contributes to facilitating the flow of appropriate decisions and directing and implementing its various operations. It is a vital source for its sustainability, survival and competitive advantage (Al-Lami and Al-Bettani, 2010). Organizations have begun to use decision support systems to obtain the information necessary to support decision-making processes at the higher administrative level, which is a less costly process and saves a lot of time. Computer-based decision support systems interact with the decision-maker through the information they provide to reach relevant decisions. Quality. The senior management is now able to determine its information needs and obtain it in a way that serves its purposes and for this reason decision support systems are considered among the most important developments that have occurred in information technology, because of their important and sensitive role in linking the

process of making senior management decisions with the process of using the computer (Al-Salmi, 2003).

Define Decision Support Systems (Al-Kurdi and Al-Abd, 2003) defined them as interactive information systems that provide managers with information, models and data processing tools that help them make semi-structured and unstructured decisions, in those circumstances where no one knows exactly what decision to take. While (Mustafa and Nabil, 2006: 351) defined it as an extension of management information systems that provide managers with the tools and data they need to make decisions, while management information systems provide the structural and routine information needed to make administrative decisions, so the field of decision support systems helps managers in solving unstructured and non-routine problems.

Objectives And Principles Of Decision Support Systems:

Decision support systems have many benefits, including the ability to support multiple solutions to problems, make quick reactions to unexpected situations that result from a change in circumstances, support the decision-making process and facilitate its implementation, improve administrative control, reduce the cost of decision-making, improve management effectiveness through making quick and accurate decisions (Al-Salmi, 2003). Decision support systems are designed to solve problems in their semi-structured and unstructured parts, provided that they help managers separate places and parts of the problem so that they can use their experiences and judgment in solving them through their basic components: Data management systems and models, knowledge, and facing users (Al-Omari and Al-Samarrai, 2008), and (Al-Maghribi, 2002) stated that the objectives that the decision support system must achieve:

1. Assist managers in making decisions to solve semi-structured (complex) problems.
2. Supporting managers' decisions rather than changing them.
3. Improving the effectiveness of decision-making, not just its efficiency.

Characteristics and components of decision support systems

Decision support systems are concerned with supporting decision makers by providing the necessary data and models to solve unstructured and semi-structured problems, and from the above it is possible to show some of the basic features that distinguish decision support systems from other computer-based information systems. The most important characteristics of decision support systems can be summarized as follows (Al-Taie, 2005):

- The system provides support to the manager, as the system cannot replace him and be a substitute for the decision maker, but rather it focuses on the non-routine parts of the problem with the aim of providing attribution and support in the decision-making process.
- The decision support system and computer tools must be distinguished from the software and hardware that make

this system possible. The decision support system is to put these software and hardware into practice.

- The support system does not replace the decision-maker with personal judgment, as not all decision-making can be subjected to quantitative analysis.
- Effective decision-making takes place through the interaction of the decision-maker and the system, and this is accompanied by a dialogue between them.

The decision support systems are composed of the following:

- A. **Inputs:** These inputs are students as materials, classrooms, libraries, books, illustrations and laboratories as equipment, faculty and administrative staff as individuals, fees paid by students, government grants and investment returns as money, and knowledge of market needs for human competencies and skills as information (Al Hassania, 2002: 55).) .
- B. **Operations:** The University’s operations are represented in what students receive from lectures, seminars and exams in order to provide students with sufficient skills needed by the community (Al-Sharman, 2004: 48-49).
- C. **Outputs:** After the process of input and processing, the system extends the environment surrounding it with its outputs, which were inputs that have undergone transformational processes. At the university, the students with their skills and education constitute the outputs of the university (Al Hassania, 2002: 55).
- D. **Feedback:** The system provides the possibility of obtaining information about the previous three stages so that adjustments can be made in any of them. For example, in the university, its management may decide to establish a new laboratory because the information indicates that the number of current laboratories is insufficient (Al-Sharman, 2004: 48 -49).

Types of Decision Support Systems

There are two types of decision support systems as follows:

- A. **A Decision Support System Guided By Models:** the use of a mathematical model to accomplish repeated operations, to find alternatives for decision outputs, and this type is characterized as having a special use and is separate from the information systems in the organization, that is, it is represented by ready-made software that is used for specific purposes (Al-Najjar, 2007: 125) .
- B. **Data-Driven Decision Support System:** This type is characterized by a great ability to analyze a large volume of data, which enables the decision maker to obtain the information necessary for decision-making, and this data can be analyzed using real-time analytical processing and data mining (Al-Najjar, 2007: 126) .

Decision support systems have also been divided into three types according to the user of the system (Al-Kurdi and Al-Abd, 2003: 311), which are as follows:

- 1. **Individual Decision Support Systems:** They are based on the presence of an individual user performing the same activities in making decisions that may be repeated at

different periods of time, such as choosing stocks or bonds.

- 2. **Group Decision Support Systems:** in which the focus is on the presence of a group of individuals as users of the systems, and each of them is responsible for performing tasks independent of those performed by others, but linked to them to a high degree.
- 3. **Organizational Decision Support Systems:** where the focus is on performing organizational tasks that include a sequence of processes belonging to different functional areas such as decisions related to long-term planning, the process of resource allocation and the process of assignment of tasks.

Third - Al-Azhar University

Al-Azhar University is an independent, non-profit educational institution established in September of the year (1991), aiming to meet the needs of the Palestinian society for qualified human resources in various knowledge disciplines, and to instill Palestinian youth in their country, with a focus on the employment of information and communication technology, and Al-Azhar University enjoys Arab recognition. It has many and varied relations with many Arab and international federations, organizations, and networks, which support and strengthen the state of recognition of its certificates, graduates, and academic systems. Al-Azhar University in Gaza is distinguished by its membership in Arab and international universities, and the student information system is one of the most important information systems Al-Azhar, where this system serves the basic elements of this university: the student, the lecturer, the academic advisor, the university administration, and all the university’s academic and administrative deanships, centers, and departments (www.alazhar.edu.ps). The following table shows a sample of academic workers in an administrative position at Al-Azhar University during the year 2022.

Table 1: Distribution of employees from the research sample of Al-Azhar University

Academics In A	Gender	University's										
		Vice President of University	Assistant Vice College Dean	Deputy/Assistant Manager	Deputy Director	Head of the	Others	Total				
PhD	Male	1	2	-	2	1	2	3	-	3	-	5
	Female	-	-	-	-	1	1	-	-	-	-	2
The Total		1	2	-	2	1	3	3	-	3	-	6

Source: Prepared by the researcher based on the data of the Personnel Affairs Department at Al-Azhar University, 2022.

***Note/** All academics in an administrative position at Al-Azhar University are those who hold a PhD

Methodology and Procedures:

Study Population and Sampling: The study population consists of academics in an administrative position working at Al-Azhar University in Gaza, numbering 61 employees. The researcher used the comprehensive inventory method, where the questionnaire was distributed to all members of the study community and 40 questionnaires were retrieved with a recovery rate of 65.6%.

Describe The Characteristics Of The Study Sample: The distribution of the study sample members according to the personal and organizational data of the individuals in it is clear as follows:

Table 2: Distribution of the study community members according to personal and organizational data (n = 65)

Personal And Organizational Data		The Number	Percentage %
Age Group	30 years - less than 40 years	10	25.0
	40 years - less than 50 years	13	32.5
	50 years and over	17	42.5
Qualification	BA	1	2.5
	Master's	10	25.0
	PhD	29	72.5
Years Of Service	Less than 5 years old	2	5.0
	5 years- less than 10 years	6	15.0
	10 years old- less than 15 years old	3	7.5
	15 years old	29	72.5
Job Title	University President	1	2.5
	Vice President Of University	2	5.0
	Assistant Vice President	1	2.5
	Dean	10	25.0
	Deputy/Assistant Dean	6	15.0
	Boss	3	7.5
	Deputy Director	1	2.5
	Head Of The Department	16	40.0

Study Tool: A questionnaire was prepared on "the effectiveness of administrative performance and its impact on the use of decision support systems in universities: Al-Azhar University in Gaza as a model", where the five-year Likert scale was used to measure the respondents' responses to the questionnaire items according to Table (2):

Table 3: Five-point Likert Scale scores

Response	OK Very	OK Very	Average Compatible	A Few Degrees Agree	A Very Small Degree

	Muc h	Muc h			Approved
Degree	5	4	3	2	1

The Validity of The Study Tool: The researcher verified the validity of the questionnaire by adopting the validity of the scale:

- Internal Consistency:** The internal consistency is honestly the extent of the consistency of each paragraph of the questionnaire with the domain to which this paragraph belongs.
- Structural Validity:** It is one of the measures of validity of the tool, which measures the extent to which the goals that the tool wants to reach, and shows the extent to which each field of study is related to the total score of the questionnaire items, and the researcher has done that.

The Stability of The Questionnaire: The stability of the questionnaire means the degree to which the questionnaire gives close readings every time it is used, or what is the degree of its consistency, consistency and continuity when using it repeatedly at different times. One of the most famous tests used to measure stability is Cronbach's alpha coefficient, where it was found that its value for the resolution as a whole is (0.914), and this value is considered high and reassuring for the stability of the study tool.

It can be concluded from the results of the validity and reliability tests that the measurement tool (the questionnaire) is honest in measuring what it was designed to measure, and is very stable, which qualifies it to be an appropriate and effective measurement tool for this study and can be applied with confidence.

Normality Distribution Test: Kolmogorov–Smirnov test was used to test whether the data follow a normal distribution or not, as it was found that the test value equals (0.553) and the probability value (Sig.) equals (0.920). It is greater than the significance level of 0.05, so the data distribution follows a normal distribution, where parametric tests were used to analyze the data and test the study hypotheses.

Statistical Tools Used:

The data was unloaded and analyzed from the reality of the questionnaire through the SPSS statistical analysis program, where the following statistical tests were used:

- Percentages and frequencies.
- The arithmetic mean, the relative arithmetic mean, and the standard deviation.
- Cronbach's alpha test.
- Pearson's correlation coefficient.
- Kolmogorov–Smirnov test.
- T-test in the case of a single sample.
- Simple linear regression.
- One-way analysis of variance test.

Data Analysis and Hypothesis Testing

Analysis of the Axes of the Resolution:

- The First Axis: The Effectiveness Of Administrative Performance**

The T-test was used to find out whether the average response score reached the mean approval score of 3 or not, as in the following table:

Table 4: Arithmetic mean, standard deviation, and t-test value for all items of administrative performance effectiveness

#	Axis	SMA	Standard Deviation	Relative Arithmetic Mean	T Test Value	The Probability Value (Sig).	Ranking
1.	The administrative policies of the university are clear and understandable.	3.58	1.08	71.50	*3.36	0.001	5
2.	The administrative policies in the university direct the decision-making process towards developing performance.	3.63	0.98	72.50	*4.04	0.000	2
3.	The university administration explains its goals to all subordinates.	3.72	1.07	74.36	*4.17	0.000	1
4.	Administrative procedures achieve the maximum possible use of available resources.	3.58	1.00	71.50	*3.36	0.001	4
5.	Administrative procedures are flexible enough to face all situations or change objectives.	3.60	1.13	72.00	*3.36	0.001	3
The effectiveness of managerial performance		3.62	0.98	72.33	*3.97	0.000	

* The arithmetic mean is statistically significant at the 0.05 level of significance.

It is clear from the previous table that the arithmetic mean of all paragraphs of the effectiveness of administrative performance equals 3.62, and that the relative arithmetic average equals 72.33%, the test value is 3.97, and that the probabilistic value (Sig) is equal to 0.000, and this means that there is a large approval by the sample members on the paragraphs of the effectiveness axis General management performance.

The paragraph “the university administration explains its objectives to all subordinates” obtained the highest degree of

approval in the axis with a rate of 74.36%, while the paragraph “the administrative policies in the university are characterized by clarity and that they are understandable” obtained the lowest degree of approval by 71.50%.

▪ **The Second Axis: Decision Support Systems**

The T-test was used to find out whether the average response score reached the mean approval score of 3 or not, as in the following table:

Table 5: Arithmetic mean, standard deviation, and t-test value for all paragraphs of using decision support systems

#	Axis	SMA	Standard Deviation	Relative Arithmetic Mean	T Test Value	The Probability Value (Sig).	Ranking
1.	Senior management is aware of the concept of re-engineering, which ensures progress and development.	3.60	1.08	72.00	*3.51	0.001	26
2.	Senior management exercises the principle of delegation in decision-making.	3.48	1.13	69.50	*2.65	0.006	30
3.	The senior management provides the material and human requirements to achieve the objectives.	3.60	1.01	72.00	*3.77	0.000	26
4.	Senior management encourages employees to introduce performance improvement initiatives.	3.95	0.71	79.00	*8.41	0.000	7
5.	Senior management provides encouraging incentives to attract distinguished human cadres.	3.75	0.95	75.00	*4.97	0.000	16
6.	Senior management forms work teams from multiple organizational levels.	3.55	1.01	71.00	*3.44	0.001	29

7.	The senior management is concerned with the principle of innovation and continuous improvement.	3.68	1.02	73.50	*4.18	0.000	22
8.	University plans are linked to the goals set.	3.78	0.86	75.50	*5.69	0.000	14
9.	The university analyzes its strengths, weaknesses, opportunities and threats.	3.63	0.93	72.50	*4.27	0.000	25
10.	There is a clear and written strategic plan for the university.	3.78	1.03	75.50	*4.78	0.000	14
11.	The implementation of the university's strategic plan is periodically monitored.	3.90	1.06	78.00	*5.38	0.000	11
12.	Corrective decisions are taken for the performance of the university in light of the evaluation results.	4.00	0.99	80.00	*6.41	0.000	6
13.	The organizational structure helps in coordinating, communicating and exchanging information with other departments and departments within the university.	3.73	1.06	74.50	*4.32	0.000	19
14.	The organizational structure helps to communicate, coordinate and exchange information with parties outside the university, such as the Ministry of Higher Education and research centers.	3.70	1.09	74.00	*4.06	0.000	21
15.	The organizational structure of the university matches the nature of its activities.	3.95	0.71	79.00	*8.41	0.000	7
16.	The organizational structure of the university adopts the principle of delegation of powers.	4.13	0.79	82.50	*9.00	0.000	3
17.	There is a job description that clearly defines the authorities and responsibilities.	4.05	0.96	81.00	*6.92	0.000	4
18.	Effective administrative communication contributes to generating managerial ideas, knowledge and experiences to achieve goals.	3.75	0.98	75.00	*4.84	0.000	16
19.	There is an internal network that is sufficient to implement the re-engineering project.	3.67	1.08	73.33	*3.84	0.000	24
20.	The university uses the Internet in its internal and external communications among its employees.	3.75	1.08	75.00	*4.39	0.000	16
21.	There is a network that helps speed up the work.	4.25	0.54	85.00	*14.56	0.000	1
22.	The available communication system facilitates the performance of electronic services for the beneficiaries.	4.18	0.64	83.50	*11.68	0.000	2
23.	The use of information technology leads to the ability to coordinate operations in different colleges, departments and departments.	3.60	0.98	72.00	*3.86	0.000	26
24.	The use of information technology at the university is characterized by a role in the ability to re-design administrative processes.	3.68	1.10	73.50	*3.90	0.000	22

25.	The university improves its processes and procedures to ensure quality performance.	3.73	0.99	74.50	*4.65	0.000	19
26.	The technology used provides the information needed in making decisions.	3.83	0.78	76.50	*6.68	0.000	13
27.	The university provides security and privacy protection programs.	3.95	1.04	79.00	*5.80	0.000	7
28.	The university is characterized by keeping pace with technological developments in the surrounding environment.	3.94	0.73	78.80	*8.40	0.000	10
29.	The university coordinates its internal operations using information technology	3.89	1.02	77.80	*5.35	0.000	12
30.	The university engages its employees in training courses related to information technology	4.02	0.95	80.40	*6.82	0.000	5
Decision Support Systems		3.82	0.53	76.33	*11.69	0.000	

* The arithmetic mean is statistically significant at the 0.05 level of significance.

It is clear from the previous table that the arithmetic mean of all the paragraphs of decision support systems equals 3.82, and that the relative arithmetic average equals 76.33%, the test value is 11.69, and that the probability value (Sig) is equal to 0.000, and this means that there is a large approval by the sample members on the paragraphs of the systems axis General decision support.

The paragraph "there is a communication network that helps to speed up the completion of work" obtained the highest degree of approval in the axis with a rate of 85.00%, while the paragraph "the senior management practices the principle of delegation in decision-making" got the lowest degree of approval by 69.50%.

Study Hypotheses Test

Ho₁: There is a statistically significant relationship at the level of significance ($\alpha \leq 0.05$) between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza.

To test this hypothesis, the "Pearson correlation coefficient" test was used, and the following table illustrates this

Table 6: The correlation coefficient between the effectiveness of administrative performance and the use of decision support systems at Al -Azhar University in Gaza

Hypothesis	Pearson's Coefficient Of Correlation	The Probability Value (Sig).
There is a statistically significant relationship at the level of significance ($\alpha \leq 0.05$) between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza.	.863	*0.000

* The correlation is statistically significant at the significance level $\alpha \geq 0.05$.

The previous table shows that the correlation coefficient equals .863, and that the probabilistic value (Sig.) is equal to 0.000 which is less than the significance level $0.05 \geq \alpha$. This indicates that there is a direct statistically significant relationship between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza.

Ho₂: There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) for the effectiveness of administrative performance in using decision support systems at Al-Azhar University in Gaza.

To test this hypothesis, a "simple linear regression" test was used, and the following table illustrates this.

Table 7: Simple Linear Regression Analysis

Independent Variable	Regression Coefficient	T. Test Value	The Probability Value (Sig).	Correlation Coefficient	The Coefficient Of Determination
Fixed Amount	2.426	17.939	0.000	0.863	0.744
The Effectiveness Of Managerial Performance	0.380	10.523	0.000		

From the results shown in the previous table, it was found that:

- There is a statistically significant effect at the significance level ($0.05 \geq \alpha$) for the effectiveness of administrative performance in using decision support systems at Al-Azhar University in Gaza, where it was found that the probabilistic value is 0.000 which is less than the significance level of 0.05.
- Correlation coefficient = 0.863, and adjusted coefficient of determination = 0.744, which means that 74.4% of the

change in the use of decision support systems at Al-Azhar University was explained by the linear relationship and the remaining percentage may be due to other factors affecting the use of decision support systems at Al-Azhar University.

H03: There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average responses of the respondents about the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza due to personal and organizational data (Age Group, Academic Degree, Number Of Years Of Service, Job Title).

To test this hypothesis, the "one-way variance" test was used. The results are shown in the following table:

Table 8: Results of the "one-way variance" test - personal and organizational data

Personal And Organizational Data	Test Name	Test Value	The Probability Value (Sig).
Age Group	Mono Contrast	0.164	0.849
Degree	Mono Contrast	0.089	0.915
Number Of Years Of Service	Mono Contrast	2.372	0.087
Job Title	Mono Contrast	1.086	0.395

From the results shown in the previous table, it was found that the probabilistic value (Sig.) is greater than the significance level of 0.05, and thus it can be concluded that there are no statistically significant differences between the averages of the respondents' answers due to (Age Group, Academic Degree, Number Of Years Of Service, Job Title)

Conclusions

The analysis of field research results related to hypothesis testing revealed the following:

- The results confirmed the existence of a direct, statistically significant relationship between the effectiveness of administrative performance and the use of decision support systems at Al-Azhar University in Gaza.
- There is a statistically significant effect of the effectiveness of administrative performance in using decision support systems at Al-Azhar University in Gaza.
- There are no statistically significant differences between the averages of the respondents' answers due to (Age Group, Academic Degree, Number of Years of Service, and Job Title).

Recommendations

Based on the previously presented results of the study and field study, which revealed the effectiveness of administrative performance and its impact on the use of decision support systems in universities: Al-Azhar University in Gaza as a

model, the researcher suggested a set of recommendations, the most important of which are:

1. Recommendations Related To The Effectiveness Of Administrative Performance

- The importance of universities reformulating the procedures, the nature of work, and the organizational structure in those universities in a way that reduces centralization, and avoids duplication, routine, and repeated control, which contributes to improving the level of performance, achieving goals, and implementing strategic and executive plans.
- Urging universities to involve their employees when developing their plan, by communicating with all faculties and their departments and holding brainstorming sessions, workshops and periodic meetings with all departments.
- Statement of the importance of universities developing the information technology infrastructure in line with recent developments, as it is a major factor and basis for any modern university to develop its performance, and work to develop the capabilities and skills of workers in the field of information technology.

2. Recommendations Related To Decision Support Systems

- The need for the higher management of universities to pay attention to decision support systems, and to make intensive and continuous efforts to support and enhance efforts aimed at enriching and strengthening the role of decision support systems in universities.
- That universities contribute effectively to increasing interest in providing material and technical capabilities and making them available to all users, while continuing to keep pace with modern technological means and techniques.
- Increasing interest in human potential by developing and developing human resources, developing their capabilities, skills and knowledge, and attracting talents with creative capabilities.
- Increasing attention to the organizational capabilities available through an independent unit for decision support systems that reports directly to the senior administration in Palestinian universities, and allowing the organizational structure to easily flow information between different faculties, departments and departments.
- Focusing on training as a major component of decision support systems, allocating a special budget for training on the systems to be applied, and linking the training system to the workers' training needs accurately, in order to improve and develop their skills, which increases the quality and efficiency of their performance.

References

- [1] Abu Amuna, Y. M., et al. (2017). "The Role of Knowledge-Based Computerized Management Information Systems in the Administrative Decision-Making Process." *International Journal of Information Technology and Electrical Engineering* 6(2): 1-9.
- [2] Abu Naser, S. S. and M. J. Al Shobaki (2016). "Enhancing the use of Decision Support Systems for Re-engineering of Operations and Business-Applied Study on the Palestinian Universities." *Journal of Multidisciplinary Engineering Science Studies (JMESS)* 2(5): 505-512.

- [3] Abu Naser, S. S. and M. J. Al Shobaki (2016). "Enhancing the use of Decision Support Systems for Re-engineering of Operations and Business-Applied Study on the Palestinian Universities." *Journal of Multidisciplinary Engineering Science Studies (JMESS)* 2(5): 505-512.
- [4] Abu Naser, S. S. and M. J. Al Shobaki (2016). "The Impact of Management Requirements and Operations of Computerized Management Information Systems to Improve Performance (Practical Study on the employees of the company of Gaza Electricity Distribution). First Scientific Conference for Community Development 5-6 November, 2016, Faculty of Economics and Administrative Sciences Al-Azhar University of Gaza...."
- [5] Abu Naser, S. S. and M. Shobaki (2016). "Requirements of using Decision Support Systems as an Entry Point for Operations of Re-engineering in the Universities (Applied study on the Palestinian universities in Gaza Strip)." *World Wide Journal of Multidisciplinary Research and Development* 2(4): 32-40.
- [6] Abu Naser, S. S. and M. Shobaki (2016). "Requirements of using Decision Support Systems as an Entry Point for Operations of Re-engineering in the Universities (Applied study on the Palestinian universities in Gaza Strip)." *World Wide Journal of Multidisciplinary Research and Development* 2(4): 32-40.
- [7] Abu Naser, S. S., et al. (2016). "KM Factor Affecting High Performance in Intermediate Colleges and its Impact on High Performance-Comparative Study." *Computational Research Progress in Applied Science & Engineering* 2(4): 158-167.
- [8] Abu Naser, S. S., et al. (2016). "KMM Factors Affecting High Performance in Universities' Case Study on Al-Quds Open University in Gaza-Strip." *International Journal of Information Technology and Electrical Engineering* 5(5): 46-56.
- [9] Abu Naser, S. S., et al. (2016). "Knowledge Management Maturity in Universities and its Impact on Performance Excellence" Comparative study." *Journal of scientific and engineering research* 3(4): 4-14.
- [10] Abu Naser, S. S., et al. (2016). "Measuring knowledge management maturity at HEI to enhance performance-an empirical study at Al-Azhar University in Palestine." *International Journal of Commerce and Management Research* 2(5): 55-62.
- [11] Abu Naser, S. S., et al. (2017). "Social Networks and Their Role in Achieving the Effectiveness of Electronic Marketing of Technical Colleges. Second Scientific Conference on Sustainability and enhancing the creative environment of the technical sector Palestine Technical College - Deir Al Balah 6-7 December 2017.
- [12] Abu Sultan, Y. S. A., et al. (2018). "Effect of the Dominant Pattern of Leadership on the Nature of the Work of Administrative Staff at Al-Aqsa University." *International Journal of Academic Information Systems Research (IJAISR)* 2(7): 8-29.
- [13] Abu Sultan, Y. S. A., et al. (2018). "The Style of Leadership and Its Role in Determining the Pattern of Administrative Communication in Universities-Islamic University of Gaza as a Model." *International Journal of Academic Management Science Research (IJAMSR)* 2(6): 26-42.
- [14] Abu-Naser, S. S. and M. J. Al Shobaki (2016). "Computerized Management Information Systems Resources and their Relationship to the Development of Performance in the Electricity Distribution Company in Gaza." *EUROPEAN ACADEMIC RESEARCH* 6(8): 6969-7002.
- [15] Abu-Naser, S. S. and M. J. Al Shobaki (2016). "The Impact of Management Requirements and Operations of Computerized MIS to Improve Performance (Practical Study on the employees of the company of Gaza Electricity Distribution). First Scientific Conference for Community Development, Al-Azhar University of Gaza, Palestine, Faculty of Economics and Administrative Sciences, Al-Azhar University of
- [16] Abu-Naser, S. S., et al. (2018). "The Reality of the Effectiveness of Electronic Marketing in Technical Colleges in Palestine." *International Journal of Academic Information Systems Research (IJAISR)* 2(2): 19-36.
- [17] Ahmad, H. R., et al. (2018). "Information Technology Role in Determining Communication Style Prevalent Among Al-Azhar University Administrative Staff." *International Journal of Information Technology and Electrical Engineering* 7(4): 21-43.
- [18] Ahmad, H. R., et al. (2019). "Computerized Management Information Systems and Their Impact on the Job Performance of Employees at Palestinian Cellular Communications Company (Jawwal)." *International Journal of Academic Information Systems Research (IJAISR)* 3(9): 7-22.
- [19] Al Hila, A. A., et al. (2017). "The Role of Servant Leadership in Achieving Excellence Performance in Technical Colleges-Provinces of Gaza Strip." *International Journal of Management Research and Business Strategy, IJMRS* 6(1): 69-91.
- [20] Al Hila, A. A., et al. (2018). "The Effectiveness of a Website to Improve the Effectiveness of Time Management for Employees in the Beauty Dental Clinic." *International Journal of Academic Information Systems Research (IJAISR)* 2(5): 23-32.
- [21] Al Hila, A. A., et al. (2017). "The Reality of the Effectiveness of Time Management from the Perspective of the Employees of the Beauty Clinic of Dentistry." *International Journal of Engineering and Information Systems (IJEAIS)* 1(6): 136-157.
- [22] Al Shobaki, M. J. (2010). "The Relationship between Decision Support Systems and Re-Engineering in Palestinian Universities in Gaza Strip. Master Dissertation, Al-Azhar University - Gaza, Palestine.
- [23] Al Shobaki, M. J. (2016). "The Impact of the Use of Decision Support Systems in the Re-Engineering in the Palestinian Universities in Gaza Strip. Fifth International Conference London, 18 to 20 April 2016- Conference on contemporary trends in education institutions (reform of the development) Jordan- Petra University, BOUHOUTH MAGAZINE, Research Centre for Studies and Social Consultations - London.
- [24] Al Shobaki, M. J. (2017). "The Impact of the Dimensions of the Administrative Decision Support Systems on the Re-engineering of the Systems of the Palestinian universities in Gaza Strip from the Employees' Perspective." *The Arab Journal for Quality Assurance in Higher Education* 10(30): 159-179.
- [25] Al Shobaki, M. J. (2019). "The Role of Decision Support Systems in Reengineering the Academic and Administrative Systems within Universities: A Field Study Applied on Palestinian Universities in Gaza Strip. PHD Dissertation, Suez Canal University, Egypt.
- [26] Al Shobaki, M. J. (2019). "The Role of Decision Support Systems in Re-engineering the Academic and Administrative Systems within Universities: A Field Study Applied on Palestinian Universities in Gaza Strip. PHD Dissertation, Suez Canal University, Egypt.
- [27] Al Shobaki, M. J. and S. S. Abu Naser (2016). "Decision support systems and its role in developing the universities strategic management: Islamic university in Gaza as a case study." *International Journal of Advanced Research and Development* 1(10): 33-47.
- [28] Al Shobaki, M. J. and S. S. Abu Naser (2016). "Decision support systems and its role in developing the universities strategic management: Islamic university in Gaza as a case study." *International Journal of Advanced Research and Development* 1(10): 33-47.
- [29] Al Shobaki, M. J. and S. S. Abu Naser (2016). "Performance development and its relationship to demographic variables among users of computerized management information systems in Gaza electricity Distribution Company." *International Journal of Humanities and Social Science Research* 2(10): 21-30.
- [30] Al Shobaki, M. J. and S. S. Abu Naser (2016). "The reality of modern methods applied in process of performance assessments of employees in the municipalities in Gaza Strip." 1(7): 14-23.
- [31] Al Shobaki, M. J. and S. S. Abu Naser (2017). "Requirements for Applying Decision Support Systems in Palestinian Higher Education Institutions-Applied Study on Al-Aqsa University in Gaza." *International Journal of Information Technology and Electrical Engineering* 6(4): 42-55.
- [32] Al Shobaki, M. J. and S. S. Abu Naser (2017). "Requirements for Applying Decision Support Systems in Palestinian Higher Education Institutions-Applied Study on Al-Aqsa University in Gaza." *International Journal of Information Technology and Electrical Engineering* 6(4): 42-55.
- [33] Al Shobaki, M. J. and S. S. Abu Naser (2017). "Usage Degree of the Capabilities of Decision Support System in Al-Aqsa University of Gaza." *International Journal of Engineering and Information Systems (IJEAIS)* 1(2): 33-48.
- [34] Al Shobaki, M. J. and S. S. Abu Naser (2017). "Usage Degree of the Capabilities of Decision Support System in Al-Aqsa University of Gaza." *International Journal of Engineering and Information Systems (IJEAIS)* 1(2): 33-48.
- [35] Al Shobaki, M. J. and S. S. Abu-Naser (2017). "The Requirements of Computerized Management Information Systems and Their Role in Improving the Quality of Administrative Decisions in the Palestinian Ministry of Education and Higher Education." *International Journal of Academic Pedagogical Research (IJAPR)* 6(6): 7-35.
- [36] Al Shobaki, M. J., et al. (2016). "The Impact of the Strategic Orientations on Crisis Management Agency, International Relief in Gaza. First Scientific Conference for Community Development, 5-6 November, Faculty of Economics and Administrative Sciences Al-Azhar University of Gaza.
- [37] Al Shobaki, M. J., et al. (2017). "Importance Degree of eHRM and its Impact on Various Administrative Levels in Palestinian Universities." *International Journal of Engineering and Information Systems (IJEAIS)* 1(7): 181-196.
- [38] Al Shobaki, M. J., et al. (2017). "The Degree of Administrative Transparency in the Palestinian Higher Educational Institutions." *International Journal of Engineering and Information Systems (IJEAIS)* 1(2): 15-32.
- [39] Al Shobaki, M. J., et al. (2018). "The Level of Organizational Climate Prevailing in Palestinian Universities from the Perspective of Administrative Staff." *International Journal of Academic Management Science Research (IJAMSR)* 2(5): 33-58.
- [40] Al Shobaki, M. J., et al. (2018). "The Relationship Reality between the Components of Internal Control and Administrative Transparency in the Palestinian Universities." *International Journal of Academic Information Systems Research (IJAISR)* 2(3): 1-18.
- [41] Al Shobaki, M. J., et al. (2018). "The Role of Measuring and Evaluating Performance in Achieving Control Objectives-Case Study of Islamic University." *International Journal of Engineering and Information Systems (IJEAIS)* 2(1): 106-118.
- [42] Al Shobaki, M. J., et al. (2019). "The Efficiency of Banking Performance Operating in Palestine from the Point of View of Their Customers." *International Journal of Academic Management Science Research (IJAMSR)* 3(10): 75-85.
- [43] Al Shobaki, M. J., et al. (2019). "The Intermediate Role of Knowledge and Information Management in the Relationship between Adopting the Strategy Criterion and Improving Overall Performance." *International Journal of Academic Management Science Research (IJAMSR)* 2(12): 16-30.
- [44] Al Shobaki, M. J., et al. (2019). "The Role of Human Resources in Interpreting the Relation between the Emphases on the Operations Standard and Improving the Overall Performance of the Palestinian Universities." *International Journal of Academic Management Science Research (IJAMSR)* 3(5): 60-75.
- [45] Al Shobaki, M., et al. (2018). "Performance Reality of Administrative Staff in Palestinian Universities." *International Journal of Academic Information Systems Research (IJAISR)* 2(4): 1-17.
- [46] Al Shobaki, M., et al. (2022). "Administrative Communication and its Impact on Improving the Efficiency of Decision Support Systems in Palestinian Higher Education Institutions." *International Journal of Academic Information Systems Research (IJAISR)* 6(4), Pages: 1-18.
- [47] AlFerjany, A. A. M., et al. (2018). "The Relationship between Correcting Deviations in Measuring Performance and Achieving the Objectives of Control-The Islamic University as a Model." *International Journal of Engineering and Information Systems (IJEAIS)* 2(1): 74-89.
- [48] Al-Habil, W. L., et al. (2017). "The Impact of the Quality of Banking Services on Improving the Marketing Performance of Banks in Gaza Governorates from the Point of View of Their Employees." 1(7): 197-217.
- [49] Al-Hila, A. A., et al. (2017). "The Quality of Banking Services in Light of the Financial Transformations and Their Impact on the Marketing Performance of the Banks in Gaza Strip." *International Journal of Engineering and Information Systems (IJEAIS)* 1(8): 36-57.
- [50] Ammar, T. M., et al. (2018). "Evaluation and Follow-Up and Their Relationship to the Level of Administrative Transparency in the Palestinian Universities." *International Journal of Academic and Applied Research (IJARR)* 2(2): 30-44.
- [51] Amuna, Y. M. A. and M. J. Al Shobaki (2019). "The Impact of Crowdfunding Financial Attributes On Entrepreneurship Risk Taking. The International Conference on Business Information Technology and Intellectual Economics, ALbaqa Applied University, Salt - Jordan, 26 - 28 Mar, 2019, Al-Mithqal For Economic & Administrative Sciences, Special Edition, Pp: 513-520
- [52] Arqawi, S. M., et al. (2018). "The Degree of Employee Awareness of the Reality of Excellence in Performance at the Technical University of Palestine (Kadooreh)." *International Journal of Academic Management Science Research (IJAMSR)* 2(9): 27-40.
- [53] Arqawi, S. M., et al. (2018). "The Impact of Obstacles to the Application of Knowledge Management to Performance Excellence." *International Journal of Engineering and Information Systems (IJEAIS)* 2(10): 32-50.
- [54] Arqawi, S., et al. (2020). "Integration of the Dimensions of Computerized Health Information Systems and Their Role in Improving Administrative Performance in Al-Shifa Medical Complex." *Journal of Theoretical and Applied Information Technology* 98(06): 1087-1119.
- [55] El Shobaky, A. M., et al. (2020). "Job Engagement level Among the Administrative Employees in Palestinian Universities." *International Journal of Academic Information Systems Research (IJAISR)* 4(10): 18-33.
- [56] El Shobaky, A. M., et al. (2020). "Psychological Capital and Its Relationship to the Sense of Vitality among Administrative Employees in Universities." *International Journal of Academic Accounting, Finance & Management Research (IJAAFMR)* 4(10): 69-86.
- [57] El Talla, S. A., et al. (2017). "The effectiveness of a training program in increasing crowd funding awareness." *International Journal of Advanced Educational Research* 2(1): 31-37.
- [58] El Talla, S. A., et al. (2018). "Organizational Structure and its Relation to the Prevailing Pattern of Communication in Palestinian Universities." *International Journal of Engineering and Information Systems (IJEAIS)* 2(5): 22-43.
- [59] El Talla, S. A., et al. (2018). "The Nature of the Organizational Structure in the Palestinian Governmental Universities-Al-Aqsa University as a Model." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(5): 15-31.
- [60] El Talla, S. A., et al. (2018). "The Reality of the Overall Performance Level in the Palestinian Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(9): 21-29.
- [61] El Talla, S. A., et al. (2018). "The Reality of University Performance According to the Models of Excellence in Palestinian Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(10): 62-77.
- [62] FarajAllah, A. M., et al. (2018). "Participation of Administrative Staff in Decision-Making and Their Relation to the Nature of Work in Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(7): 12-34.
- [63] FarajAllah, A. M., et al. (2018). "The Impact of the Leadership Standard in International Quality Models on Improving University Performance through the Intermediate Role of the Strategy Standard." *International Journal of Engineering and Information Systems (IJEAIS)* 2(9): 21-32.
- [64] FarajAllah, A. M., et al. (2019). "Measuring the Dominant Pattern of Leadership and Its Relation to the Functional Performance of Administrative Staff in Palestinian Universities." *International Journal of Information Technology and Electrical Engineering* 7(5): 13-34.
- [65] Madi, S. A., et al. (2018). "The dominant pattern of leadership and its Relation to the Extent of Participation of Administrative Staff in Decision-Making in Palestinian Universities." *International Journal of Academic Management Science Research (IJAMSR)* 2(7): 20-43.
- [66] Msallam, A. A., et al. (2019). "Computerized Management Information Systems and Its Relationship to Improving the Job Performance of the Employees of the Palestinian Cellular Telecommunications Company-Jawwal." *International Journal of Academic Information Systems Research (IJAISR)* 3(1): 15-29.
- [67] Msallam, A. A., et al. (2019). "The Reality of the Employees Performance in the Palestinian Cellular Telecommunications Company (Jawwal)." *International Journal of Academic Accounting, Finance & Management Research (IJAAFMR)* 2(12): 9-19.
- [68] Salama, A. A., et al. (2017). "The Relationship between Performance Standards and Achieving the Objectives of Supervision at the Islamic University in Gaza." *International Journal of Engineering and Information Systems (IJEAIS)* 1(10): 89-101.
- [69] Salama, A. A., et al. (2018). "The Role of Administrative Procedures and Regulations in Enhancing the Performance of the Educational Institutions-The Islamic University in Gaza as a Model." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(2): 14-27.
- [70] Shamia, M. J., et al. (2018). "Using the Asian Knowledge Model "APO" as a Determinant for Performance Excellence in Universities-Empirical Study at Al-Azhar University-Gaza." *International Journal of Information Technology and Electrical Engineering* 7(1): 1-19.
- [71] Shehada, R. Y., et al. (2020). "Impact of Community Development and Entrepreneurs on Improving the Performance of Business Incubators." *International Journal of Academic Management Science Research (IJAMSR)* 4(5): 47-70.
- [72] Shehada, R. Y., et al. (2020). "Learning and Business Incubation Processes and Their Impact on Improving the Performance of Business Incubators." *International Journal of Academic Multidisciplinary Research (IJAMR)* 4(5): 120-144.
- [73] Shehada, R. Y., et al. (2020). "Performance Improvement and Its Impact on the Application of the Balanced Scorecard in Business Incubators." *International Journal of Academic Management Science Research (IJAMSR)* 4(6): 101-131.
- [74] Shehada, R. Y., et al. (2020). "Reality of Improving Performance of Business Incubators." *International Journal of Academic Management Science Research (IJAMSR)* 4(3): 34-51.
- [75] Shobaki, M. J., et al. (2017). "The impact of the administrative dimensions of the decision support systems in the re-engineering of the Palestinian universities in Gaza Strip from the standpoint of employees." 10(2017).
- [76] Zaqout, I., et al. (2018). "Information Technology used and its Impact on the Participation of Administrative Staff in Decision-Making in Palestinian Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(8): 7-26.
- [77] Abu Taym, Muhammad (2015). "Decision Support Systems and their Relationship with the Effectiveness of Administrative Decisions - Field Research on Administrative Staff in Palestinian Universities - Gaza Governorates", Master Thesis (unpublished), Al-Azhar University in Gaza, Department of Business Administration, College of Economics and Administrative Sciences, Gaza
- [78] Al Hassania, Salim (2002). *Management Information Systems*, second edition, Al-Warraq Foundation for Publishing and Distribution, Amman, Jordan.
- [79] Al-Kurdi, Mamal and Al-Abd, Jalal (2003). "Management Information Systems - Basic Concepts and Applications", New University House, Alexandria, Egypt.

- [80]Al-Lami, Ghassan and Al-Bettani, Amira (2010). "Information Technology in Business Organizations, Uses and Applications", Al-Warraq Foundation for Publishing and Distribution Amman, Jordan.
- [81]AL-Maghrabi, Abdelhamid (2002). *Management Information Systems - Foundations and Principles*, Modern Library, Mansoura, Egypt.
- [82]Al-Najjar, Fayez (2007). "Management Information Systems", Second Edition, Al-Hamid House for Publishing and Distribution, Amman, Jordan.
- [83]Al-Omari, Ghassan and Al-Samarrai, Salwa (2008). "Strategic Information Systems- A Contemporary Strategic Approach", College of Administrative and Financial Sciences, First Edition, Dar Al-Masirah, Al-Isra University, Jordan.
- [84]Al-Salmi, Alaa (2003). "Information Management Systems", Arab Administrative Development Organization Publications, Cairo, Egypt.
- [85]Al-Sharman, Ziyad (2004). "Introduction to Management Information Systems - MIS", Safaa Publishing House, Amman, Jordan.
- [86]Al-Taie, Muhammad (2005). "Introduction to Management Information Systems", First Edition, Wael Publishing House, Amman, Jordan.
- [87]Gad Al-Rab, Syed (2009). "Advanced Administrative Topics and Their Applications in International Business Organizations", First Edition, Egyptian Book House, Cairo, Egypt.
- [88]Gad Al-Rab, Syed (2010). *Administration of Universities and Higher Education Institutions - Development Strategies and Curricula for Improvement*, Academy Library, First Edition, Cairo, Egypt.
- [89]Hassan, Rawyah (2004). "Contemporary Organizational Behavior", University House, Cairo, Egypt.
- [90]Jean Marie Ducreux, Maurice Marchand-Tonel (2004). "Stratégie, les clés du succès concurrentiel", Edition d'organisation", Paris.
- [91]Lu, Jian (2019). "Research on Process Reengineering of University Financial System Based on "Big Data" + "Cloud Computing", *Advances in Economics, Business and Management Research*, 68 (716).
- [92]Martins, Carolina Lino, Teixeira de Almeida, Adiel and Costa Morais, Danielle (2019). "Design of a Decision Support System for Resource Allocation in Brazil Public Universities", *International Journal of Decision Support System Technology (IJDSST)* 11(1).
- [93]Mir Anamul, Hasan and Daniel, Schwartz (2019). "A Multi-criteria Decision Support System for Ph.D. Supervisor Selection: A Hybrid Approach, Proceedings of the 52nd Hawaii International Conference on System Sciences.
- [94]Mustafa, Nihal and Nabil Abbas (2006). "Business Basics in the Light of Globalization", Modern University Office, Alexandria, Egypt.
- [95]www.alazhar.edu.ps, Access: 8 June 2022.