# Decision Support Systems and Their Impact on the Development of the Organizational Structure in Palestinian Higher Education Institutions

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*Abstract: The aim of the research is to identify decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions. The research was applied to four Palestinian universities (Al-Aqsa University, the Islamic University, Al-Azhar University, the University of Palestine), and a sample of academics with an administrative position. The analytical descriptive approach was used and secondary data was obtained through a survey list distributed to the research community of academics in an administrative position using the stratified random sample according to the university, and (250) survey lists were distributed and (216) were recovered with a recovery rate of (86.4%). The research concluded with a set of results, the most important of which is that there is a statistically significant relationship at the level of significance (α ≤ 0.05) between the dimensions of decision support systems: the potentials (material, human, technical, organizational) available for the use of decision support systems, the approval of senior management for the use of decision support systems. Training process and organizational structure development in Palestinian higher education institutions. The results also confirmed through the results of multiple linear regression that there is no effect of the two variables (available material capabilities, available human capabilities) in developing the organizational structure in Palestinian higher education institutions, while it was found that there is an effect of the following variables (technical capabilities available for using decision support systems, organizational capabilities). Available for the use of decision support systems, the approval of senior management for the use of decision support systems, the training process) in developing the organizational structure in Palestinian higher education institutions. The results confirmed that there were no statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to the variable (scientific degree) and the variable (years of service). The research reached a set of recommendations, the most important of which is 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 enhancing the use of decision support systems in universities. And that universities actively contribute 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. And increasing the interest in the organizational capabilities available through an independent unit of decision support systems that reports directly to the senior management 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. He urged universities to involve their employees when designing the organizational structure, by communicating with all colleges and departments and holding brainstorming sessions, workshops and periodic meetings with all departments.*

**Keywords:** Decision Support Systems, Organizational Structure, Palestinian Universities.

**Originality of The Research**: The research was distinguished as an addition in the field of decision support systems and the field of organizational structure, as it was interested in studying decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions.

## 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, P: 155). This requires decision-makers in many cases to search continuously to identify the variables and challenges that affect the advancement of development and scientific development and increase productivity (Al-Otaibi and Al-Jamaly, 2004).

Decision support systems are one of the important types of computer-based information systems that are increasingly being used in decision-making. The decision support system in addition to situations that occur in a rare or infrequent manner (Gad Al-Rab, 2009, P: 80-81).

Also, without a good and appropriate organizational structure, the organizational processes proceed in a chaotic manner that is not based on a solid scientific basis. Including making improper decisions, killing creativity and ambition, low employee morale and motivation, and increased expenses (Al-Lozy, 2002). Therefore, the researcher believes that the success of the organization depends on building a successful organizational structure on its ability and management in how to create an appropriate work environment, and its ability to achieve a high degree of adaptation, congruence and harmonization between its organizational structure and its objectives, as well as the efficiency of the human element and the efficiency of its material resources.

**Research Terminology**
- **Decision Support Systems**: They are information systems that serve the middle management in the decision-making process that does not depend on previously established mechanisms and rules as an internal resource for information (Laudon & Laudon, 2007: 33). And defined (Al-Omari and Al-Samarrai, 2008) as a system capable of supporting data analysis and providing models for specific topics in particular, and that it is directed towards strategic and long-term planning, and can be used at irregular intervals.
- **Definition of Procedural Decision Support Systems**: They are interactive systems that help academics in an administrative position in making programmed and semi-programmed decisions. And decision support system) provided that they are able to influence each other as an integrated system.
- **Organizational Structure**: The organizational structure is defined as the framework that refers to the ways in which responsibilities and duties have been distributed to individuals, and the ways in which individuals gather together in specific administrative departments or functions. In the organizational ladder (Al-Hayek, 2018).
- **The Procedural Definition Of The Organizational Structure Is**: a system that defines the relationships between departments and units, lines of communication, coordination mechanisms, networking and information exchange among them, in order to achieve the desired goals.

**Problem Statement**
The researcher noted the extent of the challenges related to the development of universities, which are represented in the weak employment of the relationship between decision support systems and the organizational structure, which calls for focusing on decision support systems to increase their ability to achieve their goals with the required standards, especially since universities are striving to reach tools that help workers in making decisions. and solving complex problems, and the researcher has found that the organizational structure is a major source that contributes greatly to finding creative solutions, and this reinforces the necessity of using decision support systems to reach the best decisions. Where institutions face many challenges and variables around them, therefore, the search for new and advanced ways and methods to deal with these challenges has become a goal for these institutions in order to reach effectiveness and efficiency and maintain the institution's survival and continuity (Al-Anazi, 2017). Palestinian universities face many difficulties and problems, most notably the weak ability of workers to effectively employ information technology in the decision-making process (Al-Masry, 2007).

Through the researcher's review of a group of previous studies related to the topic of research, including the study (Ahmed, 2016), which confirmed that decision support systems contribute significantly to resource planning processes, and the study (Abu Naser and Al Shobaki, 2016), which confirmed that Palestinian universities It has a clear organizational structure that supports decision support systems.

**Research Questions**
**By informing the researcher, and based on the above, the research problem is determined by the following questions:**
**Q1-**: Is there a relationship between decision support systems and the development of the organizational structure in Palestinian higher education institutions.
**Q2-**: Is there an effect of using decision support systems on developing the organizational structure in Palestinian higher education institutions.
**Q3-**: Are there differences between the averages of respondents' opinions about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to personal and organizational variables (University, Gender, Age Group, Academic Degree, Years of Service, and Job Title)?

**Research Objectives**
The main objective of the study is to identify decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions. It also seeks to achieve the following set of goals:
1. Shedding light on the extent to which Palestinian universities own decision support systems, and demonstrating the effectiveness of the systems used in decision-making in universities.
2. Highlighting the role of the capabilities (material, human, technical, organizational) available for using decision support systems in developing the organizational structure in Palestinian higher education institutions.
3. Demonstrating the role of senior management's support for the use of decision support systems in developing the organizational structure in Palestinian higher education institutions.

4. Identifying the role of the training process for using decision support systems in developing the organizational structure in Palestinian higher education institutions.
5. Statement of the importance and need of universities to develop the organizational structure associated with decision support systems, as one of the entrances to improving academic and administrative services and raising their efficiency.
6. 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 (University, Gender, Age Group, Academic Degree, Years of Service, and Job Title).

**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:
**First- Scientific (Theoretical) Importance:**
1. The theoretical importance of this study emerges from the scientific enrichment it adds to studies that dealt with the issue of decision support systems and organizational structure.
2. This study sheds light on the role of decision support systems in developing the organizational structure in Palestinian higher education institutions, which contributes to developing and increasing the efficiency of higher education institutions.
3. The study provides a scientific reference that can guide workers in Palestinian universities, especially the higher administrative levels, to face challenges in making decisions.
**Second- Practical (Applied) Importance:**
1. The researcher hopes that the results of this study will be generalized to (14) universities recognized by the Ministry of Education and Higher Education operating in the State of Palestine, of which (2) are governmental, (3) are private, and (9) are public.
2. Providing the senior management of Palestinian universities with documented recommendations and proposals derived from the field study that help in improving the role of decision support systems in developing the organizational structure in Palestinian higher education institutions.
3. This study gives a scientific assessment of universities on the subject of decision support systems and the organizational structure, which contributes to developing the efficiency and performance of universities and raising the academic and administrative level in them.
4. The study practically presents recommendations and suggestions to decision-makers in Palestinian universities to develop the organizational structure.

**Research hypothesis**
Based on the relationships included in the study model, and to answer the research problem and its sub-questions, the researcher formulated the following hypotheses:
**Ho$_1$:** There is a statistically significant relationship at the level of significance ($\alpha \leq 0.05$) between decision support systems and the development of the organizational structure in Palestinian higher education institutions.
**Ho$_2$:** There is a statistically significant effect at the level of significance ($\alpha \leq 0.05$) for decision support systems on the development of the organizational structure in Palestinian higher education institutions.
**Ho$_3$:** The third main hypothesis: There are statistically significant differences at the level of significance ($\alpha \leq 0.05$) between the average responses of the respondents about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to personal and organizational data (University, Gender, Age Group, Academic Degree Number Of Years Of Service, Job Title).

**Research Variables and Measurement Indicators**
**The Independent Variable:** Decision Support Systems and Includes the Following Main Dimensions:
1. **Possibilities available for using decision support systems:**
- Physical Capabilities.
- Human Potential.
- Technical Capabilities.
- Organizational Capabilities.
2. **Senior Management Endorsement for the Use of Decision Support Systems.**
3. **Training Process.**
**Dependent Variable**: Organizational Structure

**Research Limits and Scope**
Each study, whether scientific or theoretical, has limits, and they can be explained as follows:
1. **The Objective (Academic) Limitation**: The study was limited to the study of decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions, and to present proposals that contribute to activating the role of decision support systems in Palestinian universities in the Gaza Strip.

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 universities under study.

3. **Institutional Limit**: The study was conducted on four regular Palestinian universities in the Gaza Strip: (Al-Aqsa University, the Islamic University, Al-Azhar University, and University of Palestine). As the universities to which the study is applied are regular universities that are close in the programs they offer.

4. **Spatial Limit**: The study was conducted in the State of Palestine, specifically in the 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 on Palestinian universities, and statistical analyzes were conducted in the year (2022).

**Limitations of The Study**: The application of this study was limited to Palestinian universities in the Gaza Strip, and did not include universities in the West Bank, due to 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) 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.

➢ 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 position s 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 (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.

➢ A study of (Al-Nsour, 2019) which aimed to test the impact of the organizational structure as a mediating variable in the relationship between the extent of readiness for organizational change and the quality of health services provided in university

hospitals in Jordan. Doctors, administrators, workers). To achieve the objectives of the study, the researcher adopted the field research method and the descriptive analytical approach to the study, and targeted a sample of (195) individuals, using a number of statistical methods, the most important of which are: (simple linear regression and path analysis). Among the most important results of the study, there is a statistically significant effect of the period of readiness for organizational change on both the quality of the service provided and the development of the organizational structure directly, in addition to a statistically significant effect between the development of the organizational structure and the quality of the service provided directly. A statistically significant effect of the extent of readiness for organizational change on the quality of services provided, through the development of the organizational structure as an intermediate change.

➢ 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 (Almasri, A., et al., 2018), which aimed to study the organizational structure and its role in the application of information technology used in Palestinian universities as a comparative study between Al-Azhar and Islamic universities. The researchers used the descriptive approach through a questionnaire distributed randomly to workers in Palestinian universities in the Gaza Strip. The sample consisted of (182) administrative employees from the two universities, and the response rate was (81.35%). The study reached a number of results, the most important of which is the presence of a high level of information technology used from the point of view of the administrative staff, and that there is a direct relationship between the organizational structure, information and technology used, and the existence of the role and impact of the organizational structure in the nature of the information technology used. And there were no differences between the sample according to the variable (gender and age). And that there are statistically significant differences between the perception of the organizational structure and the information technology used according to the educational qualification variable in the organizational structure, while there are no differences in the field of information technology used. Differences in employee perception of the organizational structure and information technology used depending on years of service, and differences in organizational structure and technological perception depending on the job level variable (manager, department head, and administrative employee) in favor of the administrative employee. And the absence of differences in the employees' perception of the organizational structure and the information technology used depending on the variable of the workplace, and the differences in the employees' perception of the organizational structure and information technology used by the university operating in the Islamic University.

➢ A study of (Al-Nile, and others. 2018), which aimed to know the interrelationship between organizational structures and institutional performance, by applying to the tax office, to determine the extent of the ability of the current bureau structure to achieve its goals. The study used the descriptive analytical approach to analyze the data of the study, and the researcher used a questionnaire to collect primary data. Among the most important results of the study: There is a statistically significant relationship between the organizational structure, the efficiency and effectiveness of the performance of the Tax Office, and the organizational structure of the Tax Office, a good structure that organizes relations and clarifies the authorities and responsibilities, and the employees of the Tax Office have sufficient mandate to take decisions and a high degree of harmony and friendliness, and the Bureau achieves the annual linkage It is considered one of the most efficient government departments, with citizens complaining about the unfairness of the tax.

➢ 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.

➢ A study of (Rouhani et al., 2016) which aimed to study the relationship between information intelligence functions and the benefits of decision support, and organizational benefits in the context of the decision environment. The most important results of the study were the presence of a relationship between the functions of information inquiry and the benefits of decision support, and organizational benefits. And that the results can provide effective and useful insights for investors and business owners to take advantage of more appropriate intelligence tools and functions to reach more optimal regulatory advantages. It also enables managers to better understand the application of BI functions in the process of realizing the benefits of administrative support.

➢ 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.

➢ A study of (Ahmed, 2016), which aimed to know the goal of the resource information system in providing the necessary information for the management of human resources planning in the process of making the right decision at the right time. The most important results of the study were that human resources information systems help in identifying training needs. And that

human resources information systems help in raising the efficiency and capabilities of employees through technical assessments. And that decision support systems help decision makers in training operations to choose the appropriate training courses. And that decision support systems contribute to making decisions about training operations. And that training operations need their own systems that provide them with the information they need.

➢ 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.

➢ Study of (Al-Fawair, 2015), which aimed to identify the impact of the use of decision support systems on the quality of administrative decisions in the Jordan Aviation Company. The most important results of the study were that there is a statistically significant effect of using decision support systems on the transparency of decisions as a dimension of decision quality in the Jordanian airline. There is a statistically significant effect of using decision support systems on the complementarity of decisions as a dimension of decision quality in the Jordanian airline. There is a statistically significant effect of using decision support systems on the speed of decisions as a dimension of decision quality in the Jordanian airline. There is a statistically significant impact of the use of decision support systems on the participation of employees in decision-making in the Jordanian airline.

➢ Study of (Al-Shalabi, 2015), which aimed to shed light on decision support systems and their impact on the performance of workers in Jordanian telecommunications companies, and to show the importance of decision support systems and the difficulties they face. The most important results of the study were the presence of a statistically significant effect of the training programs on the performance of employees. And there is a statistically significant impact of the type of decision support systems on the performance of employees. And there is a statistically significant effect of user satisfaction on the performance of employees. And there is a statistically significant effect of the quality of information on the performance of employees. And there is a statistically significant impact of the technical capabilities on the performance of the employees.

➢ A study of (El-Sayed, 2015), which aimed to identify the importance, necessity and justification for re-engineering the regulatory system in Egypt to conduct a course. And learn how to take advantage of information technology support to re-engineer the system of control over public money and support its client to operate it and activate and improve its performance. The most important results of the study were that information technology supports the process of re-engineering itself, and information technology supports the regulatory system after it is re-engineered through its support for performance in the regulatory system. And the need to rely on appropriate technology (hardware, software, communications) according to the nature of the process to be re-engineered to ensure the implementation of re-engineering according to a sound basis. And the need for comprehensive coordination between the tools used in re-engineering, whether databases, operation, report or communications. And that the senior management should support the process of re-engineering relying on information technology to fix any errors first hand. Providing an appropriate infrastructure for the application of information technology and the communication process.

**Commenting On and Analyzing Previous Studies:** By reviewing previous studies, the researcher found that there is an increasing interest in decision support systems and the organizational structure, and the current study has taken care that all studies are modern to represent the reality of our time, which is characterized as a rapidly developing and changing reality. Through the presentation and analysis of previous studies, the current study reached a set of the following conclusions and observations:

**Similarities and Differences between the Current Study and Previous Studies**

▪ **In Terms Of The Purposes And Objectives Of The Study**: The previous studies focused on the link between the organizational structure on the one hand and computerized information systems on the other hand, without addressing decision support systems, as they dealt with decision support systems alone and the organizational structure alone. The decision on the organizational structure.

▪ **In Terms Of The Method Used In The Study**: The previous studies, as well as the current study, used the descriptive analytical method as a method for the study, because this approach has characteristics that fit the nature of the current study, as it depends on the study of reality accurately, and depends on the description of the phenomenon under study.

▪ **In Terms Of the Study Tool**: the studies agreed to use the questionnaire as a main tool for the study.

▪ In **Terms of the Study Population and Sample**: Most of the previous studies highlighted the organizational structure or decision support systems in government and industrial institutions and the scarcity of studies in universities. Academics in a management position.

**What Distinguishes This Study From Previous Studies?**

This study is in addition to the existing studies that studied the variables of decision support systems and the organizational structure, and the research sample is four Palestinian universities, and the sampling unit is academics with an administrative position.

▪ The importance of the university education sector, and the need to develop organizational structures.
▪ The applied aspect, which was carried out on the major Palestinian universities in the Gaza Strip, and the research sample from Palestinian universities (public, private, and public).
▪ They differ in time domain from previous studies conducted in this field.
▪ The viewpoint of all academics in an administrative position was taken from (university presidents, vice presidents, assistant presidents, assistant vice presidents, deans of colleges, deputy or assistant dean, directors, deputy directors, heads of departments) in the Palestinian universities in the Gaza Strip.

## Theoretical Framework

### First- Conceptual Framework of Decision Support Systems

The main concept of decision support systems is that they represent a relatively new way of thinking using computers for administrative purposes. They are computer-based systems designed for the purpose of improving productivity and increasing effectiveness by supporting decision makers and policy makers. Term, strategic planning, analysis of organizational mergers, policy development, portfolio management, and others (Al-Kurdi and Al-Abed, 2003).

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. For this reason, decision support systems are considered one of 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 to the process of using the computer (Al-Salmi, 2003).

We find that (Haider, 2002) defined decision support systems as one of the types of systems that support decision-making activities within the administrative apparatus, where the decision-making process is the basis of the administrative process. They are defined (Al-Kurdi and Al-Abed, 2003) 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, P: 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 It helps managers in solving unstructured and non-routine problems.

**Importance of Decision Support Systems:** Decision support systems have emerged in their different and advanced generations due to the need for departments to have techniques and tools to support complex decisions that are subject to conditions of risk and uncertainty, as it is the effective combination of human intelligence, information technology and software that interact with each other in order to solve complex problems. The importance and benefits of these systems can be summarized as follows (www.caoa.gov.eg):

− Decision support systems are distinguished by their development from other information systems by integrating technology and operations research within the framework of the efficiency of the decision maker.

− Increasing the number of alternatives and the possibility of selecting the optimal alternative from among the tested alternatives by providing a more rapid sensitivity analysis and a faster response. It can provide support for a sequential and interconnected series of decisions, supporting all stages of the decision-making process.

− Better understanding of business enables decision makers to see relationships, which can be used to build a comprehensive business picture.

− Quick response to unexpected situations, easy revision of models and quick visibility of variables.

− The ability to complete the analysis for a specific purpose, providing a set of various technical means and methods for preparing the analyzes for specific purposes.

− Improved communications and oversight, documented and improved communication channels, more consistent plans and standardized accounting procedures.

− Saving time and costs, shortening office work and reducing overtime, and then saving costs.

− Better decisions, better teamwork, efficiency and better use of data resources.

The researcher believes that the use of decision support systems that provide highly advanced information technologies leads to the organization obtaining an important advantage in relation to all its competitors who do not use these systems and technologies.

**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 the places and parts of the problem so that they can use their expertise 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:

−   Assist managers in making decisions to solve semi-structured (complex) problems.

−   Supporting managers' decisions rather than changing them.

−   Improving the effectiveness of decision-making, not just its efficiency.

These objectives are linked with three principles of the concept of decision support systems, which are as follows (Al-Salmi, 2003):

1.  **Structuring The Problem**: It is difficult to find a completely structured or unstructured problem. In fact, most of these problems are semi-structured, and this means that decision support systems refer to this area where most of the problems are.

2.  **Decision Support**: where the manager and the computer work together as a team to find solutions to problems that fall within the unstructured (complex) problems.

3.  **Decision Effectiveness**: Decision support systems aim not only at efficient decision-making, but the real benefit is good decision-making.

**Components of Decision Support Systems**

Decision support systems consist of: inputs, processes, outputs, and feedback. We will explain these components as follows:

1.  **Inputs**: These inputs are represented in students as materials, classrooms, libraries, books, illustrations and laboratories as equipment, members of the teaching and administrative staff as individuals, fees paid by students, government grants and investment returns as money, and knowledge of the market needs of human competencies and skills as information (Al-Hassania, 2002, P: 55).

2.  **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 society (Al-Sharman, 2004, P: 48-49).

3.  **Outputs**: The system extends the environment surrounding it with its outputs, which were inputs that have undergone transformational processes. In the university, the students with their skills and education constitute the outputs of the university (Al-Hassania, 2002, P: 55).

4.  **Feedback**: The system provides the possibility to obtain 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 not enough (Al-Sharman, 2004, P: 48-49).

Haider (2002, P: 147) believes that the decision support system consists of several sub-systems, namely:

▪   **Data Management:** includes databases and includes data related to the situation and is managed by a software system called database management systems.

▪   **Model Management Subsystem**: The decision support system model management subsystem includes:

−   Templates base.
−   Modeling languages.
−   Templates management system.
−   Templates guide.
−   Run the model.
−   Interface subsystem.

▪   **Dialogue Management**: is the means by which the user can interact with the decision support system. It represents what the user must know in order to deal with the system, it is the means of controlling the system's operations, and it also serves as a tool for expressing the system's responses to user requests.

**Types of Decision Support Systems**

Decision support systems were divided into three types according to the user of the system (Al-Kurdi and Al-Abed, 2003, P: 311) as follows:

−   **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.

−   **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.

−   **Organizational Decision Support Systems**: 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.

**The Main Dimensions Affecting Decision Support Systems**

Decision support systems are affected by a set of variables that make up those systems, which are described as follows:

▪   The Capabilities (Physical, Human, Technical, Organizational) Available To Use Decision Support Systems.

▪   Senior Management Endorsement For The Use Of Decision Support Systems

▪   Training Process

**Figure 1**: The main dimensions affecting decision support systems
**Source**: Prepared by the researcher based on the variables and dimensions of the study, 2022.

**The First Dimension- The Possibilities Available For The Use Of Decision Support Systems**: The continuous talk about the need for administrative development is due to the fact that management is the cornerstone for building any society and its progress, because the primary goal of management is to invest the available material, financial, and human resources an optimal investment within the concepts of efficiency and effectiveness, Successful management always seeks to avoid extravagance, chaos and disorder, and works with every effort and energy to maintain the effective investment of available resources in order to achieve the goals it seeks (Al-Tamimi and Al-Khatib, 2008, P: 132). The possibilities available for using decision support systems can be divided into:

A. **The Material Capabilities Available for The Use of Decision Support Systems**: It includes all the physical devices and materials used in the operation of information and it includes computers, peripherals and media, where the amount of funding required depends on the type of problems that the system deals with (Al-Kurdi and Al-Abed, 2003).

B. **The Human Capabilities Available for The Use of Decision Support Systems**: human cadres must form and work as a team. The team consists of cadres that cover the aspects of the problem and the requirements of designing and implementing the system. In all cases, there are fixed cadres and explain them, such as: cadres of economic analysis of all kinds, cadres for operations research and decision support, cadres For systems analysis and design, cadres for statistical analysis, cadres for computer and information technology, cadres for serving computer networks and communications (Al-Hassania, 2002, P: 55). The availability of human skills and competencies, training, development, and motivation is one of the most important pillars that achieve the organization's goals. Achieving meaningful success requires devoting the necessary attention and care to individuals starting with the selection and appointment process, performance evaluation, training and development programs and methods of motivation seeking to prove self-differences in work, participation and cooperation, and showing an image Work for the purpose of achieving continuous improvement in performance (Hammoud, 2005, P: 99).

C. **Technical Capabilities Available For The Use Of Decision Support Systems**: Among the most important of these capabilities are management information technologies, computer system technologies and communications, as these technologies provide the necessary information and data, and this affects the work of the institution in terms of increasing efficiency, saving time and effort, accuracy and speed in the completion process. Reducing costs, simplifying procedures, increasing administrative productivity, in addition to the importance of traditional information technology such as computers, software, communications and the Internet in the decision-making processes (Al-Salmi, 2003).

D. **The Organizational Possibilities Available For The Use Of Decision Support Systems**: Today's organizations operate in a rapidly changing and highly competitive global society, and in their quest for survival, organizations must take upon themselves the coordination between their components as the force that enables linking and unifying everything in business organizations and making it in motion Permanent, through organizational requirements and dimensions that coordinate and link the elements of the organization to enable it to achieve its goals (Rachman and others, 2001).

**The Second Dimension - Senior Management's Support for the Use of Decision Support Systems**: There is no doubt that senior management represents an essential and important element in all stages of the administrative process in general, as the senior management represents the focus of the process in all its aspects and dimensions. Implementing the system or reaping the fruits of any of its multiple benefits (Tawfiq, 2008, P: 150), and the effectiveness of the system depends on the commitment, endorsement and support of the senior management of the organization served by the system, whether it is at the level of its data input, or the level of its output from policies, and without support on the Which level does not perform the required system (AL-Maghribi, 2002, P: 44).

**The Third Dimension - The Training Process:** The importance of training for the organization is to remove or address performance weaknesses, as effective training programs achieve a set of benefits represented in increasing workers' positive attitudes towards work and the organization, contributing to productivity and improving organizational performance by providing workers with the skills and knowledge necessary to perform The training works to rationalize administrative decisions and develop the methods and

skills of administrative leadership, as well as clarifying the general policies of the organization, thus raising the performance of employees through their knowledge of what the organization wants from them to achieve its goals, in addition to It helps in renewing and updating information in line with what the organization wants from them to achieve its goals (Abbas, 2003).

**Second - The Conceptual Framework of the Organizational Structure**

The organizational structure is the organizational framework that clarifies the components, their departments and branches, as well as defines the tiered levels, the interactions through them, the activities, responsibilities and powers, in other words, a formal system of labor relations that achieves both the distribution and integration of tasks at the same time. The distribution of tasks clearly defines who performs them, while the integration of tasks is a determination of how individuals work together with each other (Al-Qaisi, 2011, P: 175). Whereas, the organizational structure is the main tool for implementing strategies by clarifying the nature and scope of the work needed to implement them, defining the relationships between businesses, clarifying the lines of communication and job positions for individuals, and the career advancement opportunities available to them (Al Bakri, 2016). As the process of modifying the organizational structure must be based on the optimal utilization of the available energies, and consolidating the organizational loyalty of individuals by taking appropriate measures, such as organizing work through groups and work teams, so that the individual becomes a member of a group or team characterized by harmony and social interaction, through Creating mutual trust and cooperation between the individual and the group to achieve the goals (Hammoud, 2005, P: 173-176).

In light of the foregoing, it becomes clear to the researcher that there must be an organizational structure commensurate with the capabilities of universities in distributing tasks, and in delegating powers to some academic workers with an administrative rank at the advanced administrative levels, which helps in the speedy completion of work.

**The Importance of Organizational Structure**

Despite the differences among researchers about the definition of the organizational structure, they agreed that the organizational structure is a basic pillar that leads to the achievement of goals through unified laws and rules that apply to all employees, and qualifies them to face all challenges and internal and external changes, because the purpose of the organizational structure is to clarify the names functional, detailing its responsibilities and implementing them effectively. The importance of the organizational structure stems from:

1. Arranging relations within the ministry and institutions.
2. It is one of the administrative tools that help the organization reach its goals, as the organizational structure is similar to the human skeleton as it holds the different sub-systems of the human body. Without this structure, the different departments and departments remain isolated units from each other.
3. Clarify departments, departments, sections and divisions within the ministry and institutions.
4. Clarify the administrative levels in the ministry and institutions, and the competencies and responsibilities of each level (AL-Fara and AL-Louh, 2007).
5. The organizational structure is the basis for the exercise of authority, according to which decisions are taken, all activities are implemented, and controls and systems are established through the supervisory levels (Aqili, 2012).

**Third - Universities under Study**

The current study focused on the Palestinian universities in the Gaza Strip, which include universities accredited by the Ministry of Higher Education and Scientific Research. The researcher collected secondary data for the universities under study, according to the following table:

**Table 1**: Characteristics of the research community

| The Scientific Degree | Gender | Al-Aqsa University | Islamic University | Al Azhar University | University of Palestine | Total | Total Summation | Total Ratio |
|---|---|---|---|---|---|---|---|---|
| **PhD** | Male | 61 | 83 | 59 | 23 | 226 | 236 | 75.2% |
| | Female | 1 | 4 | 2 | 3 | 10 | | |
| **Master's** | Male | 42 | - | - | 16 | 58 | 62 | 19.7% |
| | Female | - | - | - | 4 | 4 | | |
| **BA** | Male | 10 | - | - | 3 | 13 | 16 | 5.1% |
| | Female | - | - | - | 3 | 3 | | |
| **The Total** | | 114 | 87 | 61 | 52 | 314 | | 100% |

**Source**: Prepared by the researcher based on the data of the Personnel Affairs Department for each university, (2022).

**First - Al-Aqsa University**: It is a higher education institution. The university started as an institute for teachers in the year (1955), and in (1991) developed into the College of Governmental Education. Since then, the college has been growing little by little in its educational plans, its scientific departments, its professor and its students. As an extension of the development of the College of Governmental Education, Al-Aqsa University was established in (2001), and the university aims to spread knowledge, deepen its roots, serve and develop the Palestinian society in particular, and the Arab and human society in general, within the framework of a philosophy based on national concepts and the heritage of Arab and Islamic civilization, and it seeks to achieve this goal. Through

the creation of distinguished competencies (www.alaqsa.edu.ps). The following table shows a sample of academics working in an administrative position at Al-Aqsa University during the year 2022.

**Table 2**: Distribution of employees from the research sample to Al-Aqsa University

| The Scientific Degree | Gender | University President | Vice President Of University | Assistant President of the University | Assistant Vice President | Dean | Deputy/Assistant Dean | Director | Deputy Director | Head Of The Department | ⌐Other | The Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PhD | Male | 1 | 3 | 2 | 5 | 14 | 5 | 2 | - | 29 | - | 61 |
| | female | - | - | - | - | - | - | - | - | - | 1 | 1 |
| Master's | Male | - | - | - | 1 | - | 1 | 3 | - | 15 | 22 | 42 |
| | female | - | - | - | - | - | - | - | - | - | - | - |
| BA | Male | - | - | - | - | - | - | 2 | 5 | - | 3 | 10 |
| | female | - | - | - | - | - | - | - | - | - | - | - |
| **The Total** | | **1** | **3** | **2** | **6** | **14** | **6** | **7** | **5** | **44** | **26** | **114** |

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

**Second - The Islamic University**: The Islamic University of Gaza is an independent academic institution of higher education. The Islamic University was established in Gaza Governorate in (1978) as an outgrowth of the Palestine Religious Institute (Al-Azhar), to meet the needs of the people of the Gaza Strip in graduating academic cadres, and works under the supervision of the Ministry of Education It is a member of the Association of Arab Universities, the Association of Islamic Universities, the Association of Mediterranean Universities, and the International Federation of Universities, and it has cooperation relations with many Arab and foreign universities (www.iugaza.edu.ps). The following table shows a sample of academic workers in an administrative position at the Islamic University during the year (2022).

**Table 3:** Distribution of employees from the research sample of the Islamic University

| The Scientific Degree | Gender | University President | Vice President Of University | Assistant President of the University | Assistant Vice President | Dean | Deputy/Assistant Dean | Director | Deputy Director | Head Of The Department | ⌐Other | The Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PhD | Male | 1 | 4 | 6 | - | 17 | 18 | 2 | - | 35 | - | 83 |
| | female | - | - | 1 | - | 1 | - | - | - | 2 | - | 4 |
| **The Total** | | **1** | **4** | **7** | **-** | **18** | **18** | **2** | **-** | **37** | **-** | **87** |

**Source**: Prepared by the researcher based on the data of the Personnel Affairs Department at the Islamic University, 2022.
**\*Note/** All academics in an administrative position at the Islamic University are those who hold a Ph.D

**Third - Al-Azhar University**: Al-Azhar University is an independent, non-profit educational institution established in September (1991), aiming to meet the needs of the Palestinian society for qualified human resources in various knowledge disciplines, and to inculcate Palestinian youth in their country, with a focus on employing information and communication technology. Al-Azhar University enjoys great Arab and international recognition, and it has many and varied relations with many different Arab and international unions, organizations, and networks, which support and strengthen the status of recognition of its certificates, graduates, and academic systems. Al-Azhar University in Gaza is distinguished by its membership in Arab and international universities. One of the most important information systems at Al-Azhar University. This system serves the basic elements in this university: the student, the lecturer, the academic advisor, the university administration, and all the university's academic and administrative

departments, centers, and deanships (www.alazhar.edu.ps). The following table shows a sample of academics working in an administrative position at Al-Azhar University during the year 2022.

**Table 4**: Distribution of employees from the research sample of Al-Azhar University

| The Scientific Degree | Gender | University President | Vice President Of University | Assistant President of the University | Assistant Vice President | Dean | Deputy/Assistant Dean | Director | Deputy Director | Head Of The Department | ˈ Other | The Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PhD | Male | 1 | 2 | - | 2 | 16 | 2 | 3 | - | 33 | - | 59 |
| | female | - | - | - | - | 1 | 1 | - | - | - | - | 2 |
| **The Total** | | **1** | **2** | **-** | **2** | **17** | **3** | **3** | **-** | **33** | **-** | **61** |

**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 Ph.D

**Fourth- University of Palestine**: The University of Palestine is an academic institution among the Palestinian higher education institutions. The University of Palestine was established in 2003 in Gaza City. The university obtained the initial license and then the general accreditation of the university in 2007 until it obtained the final accreditation for some of its faculties, and it is still Work continues with the Ministry of Education and Higher Education to obtain final accreditation for the rest of its faculties. The following table shows a sample of academic workers in an administrative position at the University of Palestine during the year 2022.

**Table 5**: Distribution of employees from the research sample of the University of Palestine

| The Scientific Degree | Gender | University President | Vice President Of University | Assistant President of the University | Assistant Vice President | Dean | Deputy/Assistant Dean | Director | Deputy Director | Head Of The Department | ˈ Other | The Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PhD | Male | 1 | 1 | 1 | - | 9 | - | 10 | - | 1 | - | 23 |
| | female | - | - | - | - | 1 | - | 1 | - | 1 | - | 3 |
| Master's | Male | - | - | - | 1 | - | - | - | - | 15 | - | 16 |
| | female | - | - | - | - | - | - | - | - | 4 | - | 4 |
| BA | Male | - | - | - | - | - | - | - | - | 3 | - | 3 |
| | female | - | - | - | - | - | - | - | - | 3 | - | 3 |
| **The Total** | | **1** | **1** | **1** | **1** | **10** | **-** | **11** | **-** | **27** | **-** | **52** |

**Source**: Prepared by the researcher based on the data of the Personnel Affairs Department at the University of Palestine, 2022.

**Methodology and Procedures:**
**Study Population and Sample**: The study population consists of academics in an administrative position working in Palestinian higher education institutions in the Gaza Strip, and the following table shows the distribution of the study population by university.

**Table 6**: Distribution of academic staff in an administrative position by university

| University Name | Academics In A Managerial Position |
|---|---|
| Islamic University | 87 |
| Al Azhar University | 61 |
| Al-Aqsa University | 114 |
| University of Palestine | 52 |
| The total number of employees in the Palestinian higher education institutions under study = 314 | |

**Source**: Prepared by the researcher based on the data of the Personnel Affairs Department of the universities under study, 2022

Based on the previous table, it is clear that the number of academics in an administrative position at Al-Aqsa University represents the highest percentage, with an amount of (114) employees, as Al-Aqsa University is a public university and receives financial support from the Palestinian government. The second rank in terms of the number of academic staff in an administrative position is (87), followed by Al-Azhar University with a number of academics in an administrative position amounting to (61), and then the University of Palestine, in which the number of academics in an administrative position has reached (52) note that it is a newly established university compared to other universities in its place. Study, and there is not a large number of accredited colleges.

**Description Of The Characteristics Of The Study Sample**: The researcher used the random sample method, where (250) questionnaires were distributed to the study population, and (216) questionnaires were obtained with a recovery rate of 86.4%. The distribution of the study sample members according to the personal and organizational data of the individuals in it is clear as follows:

**Table 7**: Distribution of study community members according to personal and organizational data (n = 216)

| Personal And Organizational Data | | The Number | Percentage % |
|---|---|---|---|
| **The University** | Islamic University | 65 | 30.1 |
| | Al Azhar University | 40 | 18.5 |
| | Al-Aqsa University | 82 | 38.0 |
| | University of Palestine | 29 | 13.4 |
| **Gender** | Male | 208 | 96.3 |
| | Female | 8 | 3.7 |
| **Age Group** | Under 30 years old | 5 | 2.3 |
| | 30 years - less than 40 years | 47 | 21.8 |
| | 40 years - less than 50 years | 72 | 33.3 |
| | 50 years and over | 92 | 42.6 |
| **Qualification** | BA | 18 | 8.3 |
| | Master's | 49 | 22.7 |
| | PhD | 149 | 69.0 |
| **Years Of Service** | Less than 5 years old | 11 | 5.1 |
| | 5 years- less than 10 years | 40 | 18.5 |
| | 10 years old- less than 15 years old | 53 | 24.5 |
| | 15 years old | 112 | 51.9 |
| **Job Title** | University President | 3 | 1.4 |
| | Vice President Of University | 7 | 3.2 |
| | Assistant President of the University | 3 | 1.4 |
| | Assistant Vice President | 13 | 6.0 |
| | Dean | 39 | 18.1 |
| | Deputy/Assistant Dean | 25 | 11.6 |
| | Director | 22 | 10.2 |
| | Deputy Director | 9 | 4.2 |
| | Head Of The Department | 93 | 43.1 |
| | Other | 2 | 0.9 |

It is clear from the results of the previous table describing the characteristics of the research sample as follows:

‒ It is clear from the previous table that the highest percentage of academics with administrative positions are from Al-Aqsa University, followed by the Islamic University, then Al-Azhar University, and then Palestine University. The researcher attributes this to the fact that the study sample was distributed in a stratified random sampling method, and academics were distributed in an administrative position according to the number of academics in an administrative position in the four universities included in the study, and therefore the distribution of respondents on the four universities came to reflect the real ratios in these universities.

‒ It is clear that (96.3%) of the research sample are males, while (3.7%) of the research sample are female, and this is consistent with studies conducted on Palestinian universities, and the researcher attributes this to the labor market in the Gaza Strip, in terms of the low percentage of women's work, and this is consistent with the studies conducted in the Arab environment, which showed that the percentage of male workers is higher than that of females.

- As it is clear from the previous table that the age group (50 years and over) and (42.6) of the research sample came in the first place, and in the second place came the age group (from 40 years - less than 50 years) and by (33.3%) of the research sample And in the third place is the age group (30 years - less than 40 years) at a rate of (21.8%) of the research sample, and in the last place comes the age group (less than 30 years old) with a rate of (2.3%) of the research sample, as the general trend in universities Giving young people the opportunity to imitate leadership positions at work within universities. The researcher attributes this to the fact that the members of the sample have experience in academic and administrative work, as they are either members of the university council as deans of faculties or heads of academic departments, and this is considered an advantage for the presence of such a group of people with accumulated experience in academic and administrative work within universities, and Palestinian universities seek to Benefiting from young competencies, which represent a large percentage of the Palestinian society, which is described as a young society, which is between the age of (from 30 - less than 40) years, and this in turn is a good indicator that confirms that universities are characterized by vitality and academic and administrative activity.

- It is clear from the previous table that it came in the first rank of their scientific qualification (PhD) with a percentage of (69.0%) of the research sample, while it came in the second rank of their scientific qualification (Master's) with a rate of (22.7%) of the research sample, and it came in the third and last rank of Their academic qualification is (Bachelor's) at a rate of (8.3%) of the research sample. Where the researcher notes that the highest percentage of respondents are PhD holders, as they are in leadership positions and senior management of universities, which start from the degree of head of department or above, and this is a natural thing for most university leaders to hold a doctorate degree, given the nature of work in universities, and that holding a degree A large part of them hold the title of department head, and they often supervise academic departments, which is an acceptable indicator of performance in educational institutions (Gad Al-Rab, 2010, P: 490). Universities. The researcher attributes that the highest percentage of respondents hold a PhD, because it is necessary to obtain this university degree to occupy an academic administrative position, and also due to the nature of the target sample of academics with an administrative position who have the ability to make academic and administrative decisions.

- It is clear from the previous table that it came in the first rank of their years of service (15 years and over), at a rate of (51.9%), while it came in the second rank of those whose years of service ranged from (10 years - less than 15 years) and at a rate of (24.5%). In the third rank were those whose years of service ranged from (5 years - less than 10 years), at a rate of (18.5%), and in the fourth and last rank came from their years of service (less than 5 years) and at a rate of (5.1%) of the research sample. Where the researcher notes that the members of the university council, the deans of the faculties and their deputies, heads of departments and directors are those who have spent more than (15) years of service in universities, and that they have experience and expertise and are familiar with the systems of Palestinian universities in the Gaza Strip. The researcher attributes this to the fact that it is natural for academics with experience to assume senior administrative positions in universities, and this is done after the accumulation of experiences through years of service, and this period makes them have the ability to deal with the challenges facing them, and the ability to take decisions with confidence and stability, because in During his time at the university, he took many courses that had an important impact on developing his skills and abilities, which vary from person to person according to years of service. This serves the purpose of the study, as those with years of service working in universities have an impact on the success and continuity of these universities, as this indicates that the universities investigated are ancient universities, and that they were established for a long period of time.

- As it is clear from the previous table that he came in the first rank of their job title head of the department, with a percentage (43.1%) of the research sample, and came in the second rank of their job title dean, with a rate of (18.1%) of the research sample, and came in the third rank of their job title Deputy / Assistant Dean, at a rate of (11.6%) of the research sample, and in the fourth place came from their job title director, and by (10.2%) of the research sample, and in the fifth place came from their job title Assistant Vice President, and by (6.0%) of the sample The research, and came in the sixth rank from their job title, deputy director, and (4.2%) of the research sample, and in the sixth rank came from their job title, the vice president of a university, and (3.2%) of the research sample, and came in the seventh rank of their job title, the president of a university And the assistant president of a university, with a percentage of (1.4%) of the research sample, while it came in the eighth and last rank of their job title other than that, and by (0.9%) of the research sample. The researcher attributes to the fact that universities contain a large and varied number of departments, which need department heads to be the link between the department and the dean of the college. We also find that the name of a university president and assistant president of a university, although it is a small percentage compared to other job titles, it is a category with an important impact. In universities, the rest of the ratios were divided between managers and heads of departments, and these have a great influence on the universities under study.

**Study Tool**: A questionnaire was prepared on "Decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions", where the five-year Likert scale was used to measure the respondents' responses to the questionnaire items according to the following table:

**Table 8**: Five-point Likert Scale scores

| Response | OK Very Much | OK Very Much | Average Compatible | A Few Degrees Agree | A Very Small Degree 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:

1. **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.
2. **Structural Validity**: It is one of the tool's validity measures that measures the extent to which the goals that the tool wants to reach have been achieved.

**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 repeated use 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 (0.972), 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**: The Kolmogorov-Smirnov Test was used to test whether the data follow a normal distribution or not. It was found that the test value equals (0.795) and the probability value (Sig.) equals (0.552). 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 program, where the following statistical tests were used:

1. Percentages and frequencies.
2. The arithmetic mean, the relative arithmetic mean, and the standard deviation.
3. Cronbach's alpha test.
4. Pearson's correlation coefficient.
5. The Kolmgorov-Smirnov test.
6. T-test in the case of a single sample.
7. Simple linear regression analysis model.
8. T-test for two independent samples.
9. One-way analysis of variance test.

**Data Analysis and Hypothesis Testing**

**Analysis of the Axes of the Resolution:**

- **The First 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 9**: Arithmetic mean, standard deviation, and t-test value for all paragraphs of decision support systems

| # | Axis | SMA | Standard Deviation | Relative Arithmetic Mean | T Test Value | The Probability Value (Sig). | Ranking |
|---|------|-----|--------------------|--------------------------|--------------|------------------------------|---------|
| 1. | The material possibilities available for the use of decision support systems | 4.05 | 0.63 | 80.93 | 24.47 | *0.000 | 1 |
| 2. | The human potential to use decision support systems | 3.79 | 0.63 | 75.81 | 18.55 | *0.000 | 3 |
| 3. | Technical capabilities available for using decision support systems | 3.77 | 0.67 | 75.47 | 16.88 | *0.000 | 4 |
| 4. | The organizational possibilities available for the use of decision support systems | 3.82 | 0.64 | 76.48 | 18.94 | *0.000 | 2 |
| 5. | Supporting senior management to use decision support systems | 3.58 | 0.76 | 71.63 | 11.17 | *0.000 | 5 |
| 6. | training process | 3.45 | 0.90 | 69.05 | 7.37 | *0.000 | 6 |
| | **Decision Support Systems In General** | 3.75 | 0.60 | 74.99 | 18.36 | *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 average of all the material possibilities items available for the use of decision support systems equals 4.05, and the relative arithmetic average equals 80.93%, the test value is 24.47, and the probability value (Sig) is equal to 0.000, and this means that there is a large approval by the sample members on the material capabilities clauses Available to use decision support systems in general.

- The arithmetic mean of all the human potential items available for the use of decision support systems equals 3.79, and the relative arithmetic mean equals 75.81%, the test value is 18.55, and the probability value (Sig) is equal to 0.000. This means that there is a great deal of approval by the sample members on the available human potential items. To use decision support systems in general.

- The arithmetic mean of all the paragraphs of the organizational capabilities available for the use of decision support systems equals 3.82, and that the relative arithmetic average equals 76.48%, the test value is 18.94, 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 available organizational capabilities To use decision support systems in general.

- The arithmetic average of all senior management support items for the use of decision support systems is 3.58, the relative arithmetic mean is 71.63%, the test value is 11.17, and the probability value (Sig) is 0.000. This means that there is a large approval by the sample members on the senior management support items to use decision support systems in general.

- The arithmetic mean of all the paragraphs of the training process equals 3.45, and the relative arithmetic mean equals 69.05%, the test value is 7.37, and the probability value (Sig) equals 0.000, and this means that there is a great deal of approval by the sample members on the paragraphs of the training process in general.

- In general, the arithmetic mean of all the paragraphs of decision support systems equals 3.75, and that the relative arithmetic mean equals 74.99%, the test value is 18.36, 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 decision support systems axis in a way general.

The researcher explains that business in Palestinian universities depends mainly on the various applications of information technology and decision support systems in particular. The higher the efficiency of these systems, the higher the level of academic and administrative performance in Palestinian universities in the Gaza Strip.

These results agreed with the study (Hamad, 2016), which concluded that the use of advanced technology in business organizations gives a competitive advantage, and that investment in modern technology is a major factor likely in the field of business. And that the technological capabilities of the organization are an effective tool, and help in rebuilding administrative processes, and the study (Abu Naser and Al Shobaki, 2016), which was the most important results of the study, was the realization of the senior management of the importance of using decision support systems, and that the material capabilities are compatible with the requirements of work, and that universities are attracting Qualified staff and individuals and specialists with competence and experience, and these specialists understand the needs of workers from these programs, and that Palestinian universities have a clear organizational structure that supports decision support systems, ease of procedures and administrative communication between the different departments. It also agreed with the study (Al-Shalabi, 2015), which confirmed the existence of a statistically significant impact of training programs on the performance of employees. And there is a statistically significant impact of the technical capabilities on the performance of the employees from their point of view. And the study (Al-Fawair, 2015), which showed that there is a statistically significant effect of using decision support systems on the transparency, integrity and speed of decisions.

**The Second Axis: The Organizational Structure**
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 10**: arithmetic mean, standard deviation and t-test value for all paragraphs of the organizational structure

| # | Axis | SMA | Standard Deviation | Relative Arithmetic Mean | T Test Value | The Probability Value (Sig). | Ranking |
|---|------|-----|--------------------|--------------------------|--------------|------------------------------|---------|
| 1– | The organizational structure helps in coordinating, communicating and exchanging information with other departments and departments within the university. | 3.69 | 1.00 | 73.83 | 10.15 | *0.000 | 5 |
| 2– | The organizational structure helps to communicate, coordinate and exchange information with parties outside the | 3.77 | 0.99 | 75.44 | 11.49 | *0.000 | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | university, such as the Ministry of Higher Education and research centers. | | | | | | |
| 3– | The organizational structure of the university suits the nature of its activities. | 3.86 | 0.75 | 77.13 | 16.67 | *0.000 | 3 |
| 4– | The organizational structure of the university adopts the principle of delegation of powers. | 4.01 | 0.84 | 80.19 | 17.76 | *0.000 | 1 |
| 5– | There is a job description that clearly defines the authorities and responsibilities. | 3.88 | 1.03 | 77.69 | 12.67 | *0.000 | 2 |
| | **Overall Organizational Structure** | 3.84 | 0.57 | 76.85 | 21.73 | *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 the organizational structure equals 3.84, and that the relative arithmetic average equals 76.85%, the test value is 21.73, 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 axis of the organizational structure generally.

The paragraph "the organizational structure of the university depends on the principle of delegation of authority" obtained the highest degree of approval in the axis with a rate of 80.19%, while the paragraph "the organizational structure helps in coordination, communication and exchange of information with other departments and departments within the university" obtained the lowest degree of approval by 73.83%.

In general, it can be said that the arithmetic mean equals (3.84), and that the relative weight equals (76.85%), the test value is (21.73), so the field of "organizational structure" is considered statistically significant at the level of significance ($\alpha < 0.05$).

**Study Hypotheses Test**

**Ho1:** There is a statistically significant relationship at the level of significance ($\alpha \le 0.05$) between decision support systems and the development of the organizational structure in Palestinian higher education institutions.

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

Table 11: Correlation coefficient between decision support systems and organizational structure development in Palestinian higher education institutions

| Hypothesis | Pearson's Coefficient Of Correlation | The Probability Value Is Sig. |
|---|---|---|
| **Ho1:** There is a statistically significant relationship at the level of significance ($\alpha \le 0.05$) between decision support systems and the development of the organizational structure in Palestinian higher education institutions. | .398 | *0.000 |

* The correlation is statistically significant at the level of significance ($\alpha \le 0.05$).

The previous table (6) shows that the correlation coefficient is equal to .398, and that the probabilistic value (Sig.) is equal to 0.000 which is less than the significance level ($\alpha \le 0.05$), and this indicates the existence of a direct statistically significant relationship between decision support systems and the development of the organizational structure in institutions Palestinian Higher Education.

**Ho2:** There is a statistically significant effect at the level of significance ($\alpha \le 0.05$) for decision support systems on the development of the organizational structure in Palestinian higher education institutions.

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

Table 12: Simple Linear Regression Analysis

| Independent Variable | Regression Coefficient | T. Test Value | The Probability Value Is Sig. | Correlation Coefficient | The coefficient of determination |
|---|---|---|---|---|---|
| **Fixed Amount** | 2.427 | 10.725 | 0.000 | 0.398 | 0.154 |
| **Decision Support Systems** | 0.378 | 6.337 | 0.000 | | |

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

- There is a statistically significant effect at the significance level ($0.05 \ge \alpha$) for decision support systems on the development of the organizational structure in Palestinian higher education institutions, where it was found that the probabilistic value is 0.000 which is less than the significance level of 0.05.

- Correlation coefficient = 0.398, and adjusted coefficient of determination = 0.154, which means that 15.4% of the change in the development of the organizational structure in Palestinian higher education institutions was explained by a linear relationship

and the remaining percentage may be due to other factors affecting the development of the organizational structure in Palestinian higher education institutions .

**Ho₃:** The third main hypothesis: There are statistically significant differences at the level of significance (α ≤ 0.05) between the average responses of the respondents about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to personal and organizational data (University, Gender, Age Group, Academic Degree Number Of Years Of Service, Job Title).

To test this hypothesis, the "T-test for two independent samples" and the "one-way variance" test were used, the results are shown in the following table.

**Table 13**: Results of the "T-test for two independent samples" and the "one-way variance" test - personal and organizational data

| Personal And Organizational Data | Test Name | Test Value | Probable Value (.Sig) |
|---|---|---|---|
| The University | Mono Contrast | 12.721 | 0.000 |
| Gender | T For Two Independent Samples | -2.271 | 0.024 |
| Age Group | Mono Contrast | 0.631 | 0.533 |
| Degree | Mono Contrast | 1.003 | 0.369 |
| Number Of Years Of Service | Mono Contrast | 0.648 | 0.524 |
| Job Title | Mono Contrast | 2.665 | 0.034 |

From the results shown in the previous table, it was found that the probabilistic value (Sig.) is less than the significance level of 0.05 for the variables "university, gender, job title" and thus it can be concluded that there are statistically significant differences between the averages of the respondents' answers due to "university, gender, Job title", as for the rest of the variables, it was found that the probability 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).

**Conclusion and Recommendations**

**Conclusions**

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

− The results showed that there is a statistically significant relationship at the level of significance (α ≤ 0.05) between the approval of the senior management for the use of decision support systems and the development of the organizational structure in the Palestinian higher education institutions.

− The results showed that there is a statistically significant relationship at the level of significance (α ≤ 0.05) between the training process and the development of the organizational structure in the Palestinian higher education institutions.

− The results showed that there is a statistically significant relationship at the level of significance (α ≤ 0.05) between the dimensions of decision support systems (material capabilities available for using decision support systems, human capabilities available for using decision support systems, technical capabilities available for using decision support systems, organizational capabilities available for using decision support systems. Decision support systems, top management endorsement for the use of decision support systems, the training process) and the development of the organizational structure in Palestinian higher education institutions.

− The results confirmed through the results of multiple linear regression that there is no effect of the two variables (available physical capabilities, available human capabilities) in developing the organizational structure in Palestinian higher education institutions, while it was found that there is an effect of the following variables (technical capabilities available for using decision support systems, available organizational capabilities). The use of decision support systems, the approval of the senior management for the use of decision support systems, the training process) in the development of the organizational structure in the Palestinian higher education institutions.

− The results showed the importance of the variables affecting the development of the organizational structure in the Palestinian higher education institutions, respectively: the training process, then the commitment, endorsement and support of the senior management, and then the available organizational capabilities, then the available technical capabilities, then the available human capabilities, and finally the material capabilities available.

− The results showed that there were statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to the variable (university), in favor of Al-Aqsa University.

- The results concluded that there were statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions of the fields "technical capabilities available for using decision support systems, capabilities (material, human, technical, organizational) available for using decision support systems, and senior management support for using decision support systems. Decision support, decision support systems, information technology, and the fields combined together are attributed to the (gender) variable in favor of females. As for the rest of the fields, it was found that there are no differences in these fields due to the (gender) variable.

- The results highlighted the existence of statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions of the two fields "the available material capabilities for using decision support systems, information technology" due to the variable (age group) in favor of those aged between 40- less than 50 years . As for the rest of the fields, it was found that there were no differences in these fields due to the variable (age).

- The results confirmed that there were no statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to the variable (scientific degree).

- The results showed that there were no statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions about decision support systems and their impact on the development of the organizational structure in Palestinian higher education institutions due to the variable (years of service).

- The results indicated that there were statistically significant differences at the level (α ≤ 0.05) between the averages of the respondents' opinions of the fields "the (material, human, technical, organizational) potentials available for the use of decision support systems, decision support systems, organizational structure" attributed to the job title in favor of Whose job title is Deputy/Assistant Dean for the fields "the (material, human, technical, organizational) capabilities available for using decision support systems, decision support systems, and organizational structure." As for the rest of the fields, it was found that there were no differences in these fields due to the variable (job title).

## Recommendations

Based on the foregoing results and previous studies, the researcher suggested a set of recommendations, the most important of which are:

## 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 promoting the use 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 competencies 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 the various 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.

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## Recommendations related to the organizational structure

- The importance of universities reformulating the procedures, the nature of work and the organizational structure in those universities in a way that improves the organizational structure, as well as work to reduce centralization, and avoid duplication, routine and repeated control, which contributes to improving the level of performance and achieving goals.

- Urging universities to involve their employees when designing the organizational structure, by communicating with all colleges and departments and holding brainstorming sessions, workshops and periodic meetings with all departments.

- Statement of the importance of universities developing information technology infrastructure in line with recent developments, as it is a major factor in building the organizational structure on the one hand, and a 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.

## 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). 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.

[4]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.

[5]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.

[6]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.

[7]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.

[8]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.

[9]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.

[10]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.

[11]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.

[12]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.

[13]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 ….

[14]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.

[15]Abusharekh, N. H., et al. (2020). "The Impact of Modern Strategic Planning on Smart Infrastructure in Universities." International Journal of Academic Management Science Research (IJAMSR) 4(8): 146-157.

[16]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.

[17]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.

[18]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, IJMRBS 6(1): 69-91.

[19]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): 23-52.

[20]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): 136157.

[21]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.

[22]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 Centre 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.

[23]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.

[24]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.

[25]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.

[26]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.

[27]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.

[28]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.

[29]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.

[30]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): 1-22.

[31]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.

[32]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.

[33]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.

[34]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.

[35]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.

[36]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.

[37]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.

[38]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.

[39]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.

[40]Al Shobaki, M. J., et al. (2020). "Digital Repositories and Their Relationship to the Modern Strategic Planning of the Universities' Smart Infrastructure." International Journal of Academic Information Systems Research (IJAISR) 4(9): 1-18.

[41]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.

[42]Al Shobaki, Mazen J. (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.

[43]Al Shobaki, Mazen J. (2022). 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, International Journal of Academic Information Systems Research (IJAISR), 6 (6), Pages: 10-23

[44]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.

[45]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.

[46]Almasri, A., et al. (2018). "The Organizational Structure and its Role in Applying the Information Technology Used In the Palestinian Universities-Comparative Study between Al-Azhar and the Islamic Universities." International Journal of Academic and Applied Research (IJAAR) 2(6): 1-22.

[47]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 (IJAAR) 2(2): 30-44.

[48]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, ALbalqa Applied University, Salt - Jordan, 26 - 28 Mar, 2019, Al-Mithqal For Economic & Administrative Sciences, Special Edition, Pp: 513-520

[49]Arqawi, S. M., et al. (2018). "The Degree of Employee Awareness of the Reality of Excellence in Performance at the Technical University of Palestine (Kadoorei)." International Journal of Academic Management Science Research (IJAMSR) 2(9): 27-40.

[50]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.

[51]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.

[52]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.

[53]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.

[54]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.

[55]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.

[56]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.

[57]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.

[58]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.

[59]El-Sayed, Abu Zeid Kamel (2015). "Re-engineering the control system over public money in Egypt with the support of information technology", Journal of Business Research, Faculty of Commerce, Zagazig University, Egypt, 37 (2), p.: (179 - 228).

[60]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): 13-34.

[61]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.

[62]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.

[63]FarajAllah, Ahmed M. A, El Talla, Suliman A., Abu-Naser, Samy S. and Al Shobaki, Mazen J. (2018). Availability of Re-Engineering Requirements for Palestinian Industrial Companies. International Journal of Academic Management Science Research (IJAMSR), 2(9), 8-18.

[64]Kassab, M. K. I., et al. (2017). "The Impact of the Availability of Technological Infrastructure on the Success of the Electronic Document Management System of the Palestinian Pension Authority." International Journal of Engineering and Information Systems (IJEAIS) 1(5): 93-109.

[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]Madi, S. A., et al. (2018). "The Organizational Structure and its Impact on the Pattern of Leadership in Palestinian Universities." International Journal of Academic Management Science Research (IJAMSR) 2(6): 1-26.

[67]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.

[68]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.

[69]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.

[70]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 is A Model." International Journal of Academic Multidisciplinary Research (IJAMR) 2(2): 14-27.

[71]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.

[72]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.

[73]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.

[74]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.

[75]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.

[76]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).

[77]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.

[78]Abbas, Suhaila (2003). "Human Resources Management: A Strategic Entry", Dar Wael for Publishing and Distribution, Amman, Jordan.

[79]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

[80]Ahmed, Osama (2016). "The Impact of Decision Support Systems on Human Resources Planning by Application on the Social Development Bank from the period (2009-2015)", Master's Thesis (unpublished), Al-Zaeem Al-Azhari University, Sudan.

[81]Al Bakri, A. (2016). The impact of the effectiveness of the organizational structure on the success of public shareholding companies in the Palestine Exchange in implementing their strategy. The Islamic University, Palestine.

[82]Al Hassania, Salim (2002). Management Information Systems, second edition, Al-Warraq Foundation for Publishing and Distribution, Amman, Jordan.

[83]Al-Anazi, Miteb (2017). "The Role of Administrative Process Reengineering (Reengineering) in Developing Workers' Performance - A Field Study", Master's Thesis (unpublished), Naif University for Security Sciences, Riyadh, Saudi Arabia.

[84]AL-Fara m and AL-Louh n. (2007). The evolution of the organizational structures of the Palestinian ministries in the Gaza Strip and its impact on administrative efficiency." The Islamic University Journal, No. 2, p. 509, Palestine.

[85]Al-Fawair, Lama (2015). "The effect of using decision support systems on the quality of administrative decisions in the Jordan Aviation Company - a case study", Master's thesis (unpublished), College of Business, Amman Arab University, Jordan.

[86]Al-Hassania, Salim (2002). "Management Information Systems", second edition, Al-Warraq Publishing and Distribution Corporation, Amman, Jordan.

[87]Al-Hayek, A. (2018). The impact of the chain of command and the scope of supervision in the organizational structure on decision-making in the Ministry of Interior and National Security, Gaza Strip. Islamic University, Palestine.

[88]Al-Kurdi, Manal and Al-Abed, Jalal (2003). "Management Information Systems - Basic Concepts and Applications", New University House, Alexandria, Egypt.

[89]Al-Lozy, Musa (2002). "Organization and Work Procedures", Dar Wael for Publishing and Distribution, Amman, Jordan.

[90]AL-Maghribi, Abdelhamid (2002). Management Information Systems - Foundations and Principles, Modern Library, Mansoura, Egypt.

[91]Al-Masry, Marwan (2007). "Developing the administrative performance of the heads of academic departments in Palestinian universities in light of the principles of total quality management", a master's thesis (unpublished), the Islamic University, Palestine.

[92]Al-Nile, and others. (2018). the organizational structure and its impact on the institutional performance of organizations, a case study of the tax office. Journal of Graduate Studies, Vol. 11. p. 41, pp. 101-126, Sudan.

[93]Al-Nsour, Bilal (2019). "The extent of readiness for organizational change and its impact on the quality of health services through the development of the organizational structure in the light of the dynamic capabilities theory (case study of university hospitals in Jordan)", Journal of the Islamic University for Economic and Administrative Studies, 27 (2), 59 88.

[94]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.

[95]Al-Otaibi, Saad and Al-jamaly, Rashid (2004). "Reengineering of Administrative Processes (Reengineering) in the Public Sector - Critical Success Factors", First National Conference on Quality, College of Administrative Sciences, held from May 15-17, King Saud University, Saudi Arabia.

[96]Al-Qaisi, Hana (2011). "Quality Management Philosophy in Education and Higher Education - Methods and Practices", Dar Al-Manaraj for Publishing and Distribution, Amman, Jordan.

[97]Al-Salmi, Alaa (2003). "Information Management Systems", Arab Administrative Development Organization Publications, Cairo, Egypt.

[98]Al-Shalabi, Ahmed (2015). "Decision support systems and their impact on the performance of workers in telecommunications companies", Master's thesis (unpublished), College of Business, Amman Arab University, Jordan.

[99]Al-Sharman, Ziyad (2004). "Introduction to Management Information Systems - MIS", Safaa Publishing House, Amman, Jordan.

[100]Al-Tamimi, Fawaz and Al-Khatib, Ahmed (2008). "Total Quality Management and Qualification Requirements for ISO 9001", First Edition, Modern Book World, Irbid, Jordan, p.: (132).

[101]Aqili, A. (2012): Organization Theory and Organization Theory, First Edition. Zahran House for Publishing and Distribution, Amman.

[102]Gad Al-Rab, Syed (2009). "Advanced Administrative Topics and Their Applications in International Business Organizations", First Edition, Egyptian Book House, Cairo, Egypt.

[103]Gad Al-Rab, Syed (2010). Administration of Universities and Higher Education Institutions - Development Strategies and Curricula for Improvement, Academy Library, First Edition, Cairo, Egypt.

[104]Haider, Maali (2002). "Information Systems an Introduction to Achieving Competitive Advantage", University House, Alexandria, Egypt.

[105]Hamad, Alwaleed (2016). "Environmental variables and their impact on reengineering administrative processes in business organizations - a field study on the Sudanese Company for Thermal Generation and Sudan Railways", Ph.D. thesis (unpublished), Sudan University of Science and Technology, Business Studies, Sudan.

[106]Hammoud, Khudair (2005). "Total Quality Management", Dar Al Masirah for Publishing and Distribution, second edition, Amman, Jordan.

[107]J. Ács, Zoltán, Szerb, László, Autio, Erkko (2015). "Global Entrepreneurship Index 2015", The Global Entrepreneurship and Development Institute, Washington, D.C., USA, Pp. 15-17.

[108]Laudon, Kenneth & Laudon, Jane (2007). "Management Information Systems: Managing the Digital Firm", 9th edition, Prentice Hall, New Jersey, p (33).

[109]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).

[110]Mustafa, Nihal and Nabil Abbas (2006). "Business Basics in the Light of Globalization", Modern University Office, Alexandria, Egypt.

[111]Rachman, David and others (2001). "Contemporary Management", translated by Rifai Muhammad Rifai and Sayed Muhammad Abdul-Mutaal, Dar Al-Marikh, Riyadh, Saudi Arabia.

[112]Rouhani Saeed, Ashrafi Amir, Ravasan Ahad Zare, and Afshari Samira (2016). "The impact model of business intelligence on decision support and organizational benefits", Journal of Enterprise Information Management, 29(1), pp. (19–50), Allameh Tabataba'i University, Tehran, Iran.

[113]Tawfiq, Abd al-Rahman (2008). "Management by Objectives", Professional Management Experience Center - BMIC, Cairo, Egypt.

[114]www caoa.gov.eg, Access: 8 June 2022

[115]www.alaqsa.edu.ps/site, Access: 8 June 2022.

[116]www.alazhar.edu.ps, Access: 8 June 2022.

[117]www.iugaza.edu.ps, Access: 8 June 2022.

[118]www.mohe.pna.ps/Intro.htm, Access: 8 June 2022.

[119]www.up.edu.ps, Access: 8 June 2022.