

## RESEARCH ARTICLE

### THE ROLE OF ADMINISTRATIVE PROCESSES ENGINEERING IN IMPROVING KNOWLEDGE MANAGEMENT IN PALESTINIAN PUBLIC UNIVERSITIES

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#### Abstract

The study aimed to identify the role of administrative processes engineering in improving knowledge management in Palestinian public universities, and the descriptive analytical approach was used through the use of a questionnaire that was distributed among the study sample individuals, and the study reached the following results:

1. There is no relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities, from the deans' viewpoint, that is due to gender.
2. There is no relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the point of view of faculty deans that is attributable to academic qualification.
3. There is no relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the point of view of faculty deans due to job experience.

The study recommended conducting more studies on the engineering of administrative processes and linking them with other variables.

## Introduction:

Our world today is witnessing many changes and developments at all educational, economic, social, political, cultural and administrative levels. These changes have affected many of the constants that have been stable in the minds for many years. This resulted in many problems, the most prominent of which can be detected in the inability to follow developments, understand their true motives, explain them, as well as adapt to them.

Whereas it is not possible to meet the challenges of this era by the traditional methods that prevailed for a long period of time, modern institutions must consider the problems in a different way in which they rely on a specific engineering that depends on knowledge management in order to reach a level of in-depth understanding of these problems and provide appropriate solutions. Her (Al-Sabbagh, 2002).

In the twenty-first century, traditional organizations that depend in their activities and work and achieve their goals on the strength of their capital and financial resources, and on their traditional administrations, variables and tools that are ineffective, cannot rise to the level of the event and face the challenges of this era. And now the matter requires them to adopt the concepts of knowledge management and activate them in all of their management practices (Hamshari, 2013).

If the shift to knowledge management in re-engineering economic and industrial institutions has become a necessity in the age of knowledge, then the necessity becomes more urgent in educational and educational institutions in which the human being is the first knowledge axis for his society and one of the main pillars in its development and growth (Hassan and Al-Kilani, 2011).

The educational administration is called upon today to make great use of these processes followed in the field of business administration so that it can face the data of the twenty-first century. This requires those in charge of it to fundamentally develop management philosophy, methods and methods, and to work on redesigning its operations. Business Processes Reengineering is one of the ideas that falls under this

field, which will provide effective solutions to the problems of education (Harrington & Meloughlin & Riddel, 2018).

Administrative engineering, or re-engineering of administrative processes, or engineering, is one of the entrances to administrative development, and aims to reach radical improvements in the time required to provide service, reduce costs, and improve service quality. Re-engineering is a relatively recent concept that emerged as an administration entry in the mid-1990s thanks to its widespread use by researchers Hammer & Champy. And India is a new Arabic word composed of the words engineering and management, and it is actually a translation of the English term (Business Processes Reengineering), which means business reengineering (Hussein, 2018).

The most prominent feature that distinguishes the re-engineering of administrative processes from others is that it enables to find radical solutions to problems, by seeing the overall picture of the institution's work style, and the re-engineering of administrative processes helps to depart from routine, the narrow view of work, lack of comprehensiveness, and other methods Traditional Administration (Dagher, 2012).

And since the re-engineering of administrative processes represents one of the most important modern approaches to management, so the researcher believes that adopting this approach in official universities will lead to achieving fundamental improvements in operations and activities and increasing effectiveness and efficiency, which in turn will lead to raising the level of performance and providing new services with added value and quality. High. Accordingly, this study comes to examine the role of administrative processes engineering in improving knowledge management in Palestinian public universities.

### **The study problem and its questions:**

Efforts continued in Jordan over the past few years to achieve the goal of raising the rates of development and raising the level of quality and performance in all state institutions. The Palestinian Authority has made remarkable progress towards achieving this goal, as evidenced by economic and social indicators.

The Palestinian Authority is currently witnessing a wide societal movement, towards the transformation into a knowledge society and entering the knowledge-based economy, away from the economy dependent on natural resources. Despite this, there are still many great challenges that she must overcome, to ensure that she moves towards achieving her long-term future vision. Despite what the Palestinian Authority possesses in terms of knowledge assets, strategic resources, and real assets for knowledge management, including a strong technological infrastructure, qualified and trained human capital, and a large budget. However, it is still seen as a knowledge-consuming country, not a producer of it, and the outputs are still not commensurate with the requirements of the knowledge age and areas of the knowledge economy. The reason for all this is that there are many institutional, structural and administrative problems that must be faced in order for the Palestinian Authority to achieve the desired goals.

And the fact that the Ministry of Education is considered one of the most important state institutions on which things depend a lot to prepare the present and future generations, for the age of knowledge, and to prepare them for future work in the fields of knowledge economy, and the researcher being a member of the teaching staff, this research was justified for him in this topic, and specifically the problem of study is in Examining the role of administrative processes engineering in improving knowledge management in Palestinian public universities, by answering the following questions:

- What is the degree of employing knowledge management in administrative operations in Palestinian public universities?
- What is the degree of employing administrative processes re-engineering in public universities?
- Is there a statistically significant relationship at the function level ( $\alpha \geq .05$ ) in the role of administrative processes engineering in improving knowledge management in Palestinian public universities from the viewpoint of the faculty deans, due to the variable of gender, experience and academic qualification?

### **Terminology of study:**

The terms of the study will be defined conceptually and procedurally as follows:

**Operations Administrative:** Define it by Hammer and Champy as: "a set of activities that accommodate - one or more inputs to provide a product of value to the beneficiaries." (Hammer & Champy, 2017,22).

**Knowledge Management:** Al Hamshari defines it as "the process that helps the organization generate knowledge, acquire it, choose it, organize it, use it, disseminate it and transfer important information and experiences that the organization possesses and which it considers necessary for various administrative activities, such as problem-solving, decision-making, learning, and planning ... (Hamshari, 104,2013).

Knowledge management is defined procedurally as: the totality of knowledge processes and activities that nourish and support the entirety of the various administrative activities in the organization.

**Administrative Operations Reengineering:** Hammer and Champy define it as "fundamentally rethinking, and fundamentally redesigning administrative processes, to work on achieving substantial improvements in the performance of procedures appropriate to contemporary issues, such as: cost, quality, service, and speed." Hammer & Champy, 2017, 14).

### **The importance of studying:**

The importance of the study is represented in the possibility of benefiting from its results by the following authorities:

- Public and private universities in Jordan.
- Entities affiliated with the Ministry of Higher Education in the Palestinian Authority.
- Researchers, scholars, and those interested in this field.

### **Objectives of the study:**

This study aims to clarify the role of administrative processes engineering in improving knowledge management in Palestinian public universities.

### **Limitations and limitations of the study:**

The study included the following limits:

**Human limits:** This study was limited to deans of faculties in public universities and heads of departments.

**Temporal boundaries:** the time of application of the study tool, the first semester of the 2020/2021 academic year

**Spatial boundaries:** Palestinian official universities.

### **Theoretical framework:**

Management engineering is a relatively new concept that originated from the roots of management and computer sciences. Many authors have described it in different ways, including: administrative engineering, engineering, and this concept has become published in business systems and information systems to clarify the organizational transformation, and with many new administrative approaches that require engineering Administrative focus on administrative processes instead of the job or functional tasks, and in this way, management engineering is not its task how to perform certain tasks or functions, but rather to ensure that production tasks and jobs are necessary to achieve the customer-oriented process, and in this way the administrative engineering is distinct from the tasks of the jobs, and returns Thanks to the spread of this approach to both Hammer and Champy, the pioneers of management engineering, and this entry appeared in the mid-1990s (Hussain, 2018). Re-engineering administrative processes "is defined as a fundamental rethink and work to radically redesign operations, to work on achieving substantial improvements in the performance of appropriate procedures for influencing contemporary issues such as cost, quality, service, and speed.

The most prominent feature that distinguishes the re-engineering of administrative processes from other theories of change and development is that it enables to find radical solutions to all obstacles that hinder the progress of work by studying and analyzing the various processes, through which the overall picture of the work style in different organizations is seen, and the re-engineering of processes It helps us get out of the routine, the narrow view of work, the lack of

comprehensiveness, the quick solutions to work problems, and other traditional administrative systems and methods (Abdel Hafeez, 2003).

### **Concept of re-engineering administrative processes:**

Management engineering is a relatively recent concept, and it originated from the roots of management and computer sciences and has been described by many authors in different ways - re-engineering, management engineering, engineering - and this concept has become popular in business systems and information systems to illustrate organizational transformation, and with many new administrative approaches that require engineering Administrative focus on administrative processes instead of the job or functional tasks, and in this way, management engineering is not our task how to perform the specific tasks or functions, but rather that the production and job tasks are necessary to achieve the customer-oriented process, and in this way the administrative engineering is distinct from the job tasks.

Al-Sultan (2001) defines it as "a systematic management method based on organizational reconstruction from its roots and relies on restructuring and designing basic operations with the aim of achieving substantial development and ambition in the performance of organizations that ensures speed of performance, cost reduction and product quality".

Hussain (2018) defines process reengineering as "a process aimed at substantially redesigning administrative processes, and changing such a process is appropriate in situations where the environment is quick to change and respond".

There are many definitions of the re-engineering approach, but they all revolve around one meaning, as it is a new strategic approach that aims to revolutionize the old managerial concepts, the traditional management systems prevailing in institutions to change their culture and design new administrative approaches and innovative work systems that will make a radical change in the levels of performance. To raise employee productivity, for superior rather than marginal improvements, reduce costs, and increase speed in performance. From the previous definitions, we conclude the following main elements (Al-Sultan, 2001):

- a. Fundamental rethinking: Management engineering is a new way of thinking and a radical change with the aim of development. Management engineering is based

on answering two basic questions: Why do we do what we do? Why do we do it this way? Then, we move to what should the educational administration do in the education system? How? Management engineering is not concerned with progressive improvement or thinking, but rather with radical changes and radical rethinking, getting rid of old ways and searching for completely new ways to do these things, and this may represent a difficult matter because it is necessary to re-engineer opinions in terms of the way people think in order to give them the ability to do a process. Rethinking schools, focusing on how children learn, and the role of technology allows schools to reevaluate the place of learning and the role of the teacher. It is no longer sufficient to have a computer in the classroom, but traditional classrooms will still be required.

- b. Redesigning administrative processes: Education engineering focuses on administrative processes that include a set of activities that address one input or a number of inputs to produce specific outputs. The focus of attention here is if operations, and the main goal is not to focus on re-engineering organizational units or structures, but rather on re-engineering how to complete Work through changing jobs and tasks, changing organizational structures, and changing the behavior of individuals and workers, in the context of the education system, this process may be student learning, but from improving this, the improvement and development processes within the system must include the performance of both teachers and learners, not just the development and organization Curricula.
- c. Radical redesign: Management engineering assumes that past and current processes are insufficient and therefore more emphasis should be placed on radical new solutions that include leaving the current situation completely, and putting forward all current procedures, starting over with the adoption of other innovative methods.
- d. Continuous improvement: Marginal improvements in performance are no longer sufficient in a rapidly changing world, but rather a comprehensive and exciting performance must be sought, i.e. revolutionary performance. We need dramatic improvements in educational standards to achieve quality in current situations,



leaving the standards that need to be achieved in order to fulfill with educational demands, improvements in performance to meet the challenge of the future are exciting.

### **Knowledge management:**

Knowledge management has become, in recent decades, one of the basic topics in management at the level of most countries of the world. This is as a result of the repercussions of information globalization and the results of the great development in the field of communication, especially the Internet. The modern communication system has led to widespread and great understanding of customers' needs; This made business organizations focus on building intellectual capital, which is an effective competitive tool in light of the knowledge economy.

### **Knowledge concept:**

Assaf (2013, 61) defines knowledge as the truth, and if the truth that is reached is partial then knowledge is partial, and if the truth is total then knowledge is total, and so on..

The areas of knowledge also differ according to the nature of the interests that a person attaches to the phenomena or things that occur in his surroundings or his world.

Al-Faris (2008, 9) shows that the accumulation of knowledge and the changes that the world witnessed at the end of the last century and the contributions of modern management were the first seeds for the birth of knowledge management and the development of its models and applied standards.

The administration is now living in an era characterized by many variables: (globalization, competition, digital revolution, e-commerce and financial crises ... etc.), which impose on business organizations many local and global challenges. These challenges push business organizations to adopt strategies that lead to more innovation and creativity, and to achieve efficiency, effectiveness and excellence in performance, in order for these organizations to be able to achieve for themselves survival, sustainability, ability to compete and face challenges.

Knowledge is considered the most important challenges that organizations face and seek to obtain, because knowledge has an effective role in influencing

organizations, whether by influencing individuals, or on processes and products, and thus on the organization as a whole.

The researcher believes that knowledge constitutes one of the basic elements within a basic chain that begins with signs and is incorporated into data that is treated to become information and is mixed with experience with the progression of time to form knowledge. As for the integration of knowledge over time, it is what leads to wisdom. This clearly shows that effective and sound knowledge is the essence of wisdom, creativity and innovation.

It has become very important to know the differences between these three concepts (data, information, and knowledge), and the relationships they bind in the organizational content, as every organization has scenarios through which to ensure the compatibility of data, information and knowledge (Al-Najjar, 2010, 45).

### **Knowledge Characteristics:**

It is known that knowledge is divided into implicit knowledge and explicit knowledge, and the following is a presentation of the characteristics of both implicit and explicit knowledge:

**Table (1) Characteristics of implicit and explicit knowledge**

Tacit knowledge	Frank knowledge
Unencoded knowledge	Color-coded knowledge
Self-knowledge	Objective knowledge
Personal knowledge	Impersonal knowledge
Context-specific knowledge	Knowledge of an independent context
Knowledge that is difficult to share	Knowledge characterized by ease of sharing

Source: Hislop, D. (2009). *Knowledge Management in Organizations*. New York: Oxford University Press.

In order to achieve effective knowledge management, the organization must confine its knowledge and define its characteristics in order to be able to deal with it properly in all its operations, in a way that achieves the desired benefit from the inventory and application of knowledge assets. Knowledge is available in several classifications, including the following: (Fernandez, Gonzalez, & Sabherwal, 2018).

### **Types of knowledge:**

Knowledge is represented in many different forms and styles of information, experiences and skills, and knowledge is not limited to that limit, but rather is the feeling, feeling and behavior stemming from life developments and the accumulation

of experiences and experiences. Thus, it is not possible to develop a limited perception of the types of knowledge, and many researchers and scholars of knowledge have developed multiple classifications of knowledge and different types, and we will introduce some of them as follows:

Knowledge can be divided into four main sections: (Prusak, 2015, 27).

1. Perceptual knowledge: This knowledge relates to general theoretical principles and laws, foundations and basic rules of science, laws and scientific rules.
2. Technical (technical) knowledge: This knowledge relates to skill, technical prowess, the ability to accomplish works and things, to possess exercises and adequate training to accomplish tasks, and to achieve uniformity and conformity in the practical practices of workers who perform the same tasks.
3. Knowledge of applied and practical wisdom that appears mainly in social practices.
4. Hybrid knowledge: It is a combination of tendencies, trends and special abilities that are necessary in a field and lead to success and excellence in that field.

According to Najm (2018, 41-44), there are two main types of knowledge:

1. Explicit Knowledge: It refers to knowledge that can be shared with others, and this knowledge relates to data and virtual information that can be obtained and stored in the files and records of the organization, as well as existing and stored in the files and records of the organization and related to the organization's policies, procedures, programs, budgets, documents, foundations and standards Evaluation, operation, communication, various functional operations, etc.
2. Implicit / Tacit Knowledge: It relates to the technical knowledge, perceptual knowledge, and behavioral knowledge that resides in the individual's soul, and which is not easy to share with others or convey to them easily. Hence, it can be said that there are distinct individuals who possess implicit knowledge in their minds, and the organization can increase its effectiveness and enhance its competitive advantage if it is able to include any of these individuals to its staff

when the implicit knowledge of these individuals is related to the nature of the organization's work.

**Classification according to the type of knowledge:** The knowledge is divided here into two parts, namely (Al-Najjar, 2010):

Declarative knowledge: which focuses on beliefs about relationships between variables, and therefore includes what can be considered facts, and can be summarized in the form of hypotheses, statements, or equations.

- Procedural knowledge: It is knowledge that focuses on beliefs about a series of steps and actions to achieve specific results. Therefore, it includes actions and how to achieve those actions.

**1. Classification of knowledge according to the general nature of knowledge: It is divided into two parts:**

General knowledge: It is knowledge possessed by a large number of individuals and the advantage of being easily transferred to others.

Specialized knowledge: Specified knowledge, which is knowledge possessed by a limited number of individuals, and its transfer to others is costly and time consuming, and is divided into contextually specialized knowledge and technically specialized knowledge.

**2. Classification of knowledge according to the degree of complexity, and it is divided into two parts:**

**Simple Knowledge:** It is knowledge that is within one domain only.

Complex knowledge: it is knowledge that is based on several fields and is specialized in more than one field.

**3. Classification of knowledge according to who owns it, and it is divided into two parts:**

Individual knowledge: It is the knowledge that an individual possesses and is directly related to them. Social Knowledge: It is knowledge that is related to society in general, and which is owned by a large number of people, and is related to the prevailing social dimensions.

#### **4. Classification of knowledge according to administrative use, and it is divided into three sections, namely:**

Knowledge Support: which is concerned with operational functions and daily work, and this knowledge relates to the infrastructure and requirements for daily work.

Tactical knowledge: It is the knowledge that is concerned with the relationship of the organization with competitors and the external environment, and it is an important knowledge for determining the position of the organization and its relationship with its markets and competitors in the near term.

Strategic Knowledge: It is knowledge that includes knowledge that defines the long-term vision and strategy.

#### **5. Classification of knowledge according to the degree of appearance, and it is divided into two parts:**

Tacit Knowledge: It is knowledge that includes insight, intuition and guesses, and therefore it is difficult to express and present it in an organized way, which makes it difficult to transfer and share it with others.

Explicit Knowledge: It is knowledge that is expressed in words and numbers, and thus can be shared and transferred formally and systematically and in many forms and images.

#### **Previous studies:**

This part includes a review of previous studies that have been viewed, with a relationship arranged from oldest to newest:

#### **First: Local Studies:**

Al-Fawzan study (1434) entitled: The reality of re-engineering administrative processes in education offices in Riyadh. This study aimed to identify the reality of re-engineering administrative processes in the education offices in Riyadh, and the obstacles that limit their application, and to identify statistically significant differences between the average responses of the study sample members - if any - depending on the study variables (job, academic qualification, years of experience).

The researcher used the descriptive survey method in her study, and the study was applied to all female managers.

Aid in education offices for girls in Riyadh, and a random sample of female unit heads and educational supervisors, and the number of the study sample was (236) from the original community (719); That is equivalent to (32.8%).

The researcher used the "questionnaire" as a tool for collecting information. It consisted of two axes and included fifty-four statements. The study yielded a number of results, the most important of which are: The reality of re-engineering administrative processes in the areas of (planning, organizing, directing, and controlling) achieved in a moderate degree, and that the obstacles that limit the re-engineering of administrative processes are achieved to a high degree, and there are no statistically significant differences. Explain the responses of the study sample individuals in the reality of re-engineering administrative processes and the obstacles that limit their application due to the difference in academic qualifications. There are statistically significant differences between the responses of the study sample individuals in the reality of re-engineering administrative processes and the obstacles that limit their application due to the difference in the position and years of experience.

Al-Alfi study (2012) entitled: A proposed vision for applying the re-engineering of administrative processes approach in Saudi universities, taking advantage of the experience of some American universities. This study aimed to present a proposed vision for the application of the re-engineering of administrative processes approach in Saudi universities: by making use of the experience of some American universities. The study used the descriptive approach, and the study reached the parameters of a proposed vision for re-engineering the administrative processes in Saudi universities, taking advantage of the experiences of some American universities, and that vision included the following elements: the goal of the proposed vision, its foundations, requirements, stages and processes. The study recommended the necessity of objectivity and realism in planning the implementation of a disruptive re-engineering of administrative processes, in addition to intensive and continuous training for the human cadres participating in the application.

## Second: Arab Studies:

Al-Kuraimin (2006) conducted a study entitled: Development of a Model for Educational Decision Engineering at the Higher Management Level in the Palestinian Ministry of Education. It aimed to develop a model for educational decision engineering at the senior management level in the Palestinian Ministry of Education. The sample of the study consisted of all the members of the study community, and they were (160) members of the higher management in the Ministry of Education for the year 2004/2005. The study found the following results: There is a discrepancy in the degrees of senior management practices for engineering educational decisions in the ministry, as the arithmetic mean of the decision engineering steps dimension reached (3.21), the moral value system (3.26), the information characteristics (2.85), and the influencing elements (3.07). Resolution support systems (2.85) and resolution submission (2.86); As for the difficulties facing the manager, it was a low practice, with a mean of (2.29).

Al-Dajani (2013) conducted a study entitled: A Proposed Model for Re-engineering and Computerization of Administrative Processes in Higher Education Institutions in Palestine (The Islamic University of Gaza - Case Study). The research aims to shed light on the various aspects of the method of re-engineering administrative processes (engineering) in terms of the concept, the mechanism of application and the advantages that it achieves, and to indicate the importance and need for Palestinian universities as academic institutions to apply the engineering method, and to present a proposed conception of the application of the re-engineering method as one of the approaches to improving the service provided To the public of beneficiaries, to raise their efficiency, and to achieve comprehensive quality.

The researcher followed the descriptive and analytical approach to describe and explain the reality of process re-engineering at the Islamic University of Gaza, where he prepared the interview card to know the reality of the administrative operations at the university, and the research tool was applied to the Islamic University as a case study whose results can be generalized to other universities considering the similarity of work in universities. Palestinian.

The research found that there are attempts to document work evidence and simplify operations before implementing a process re-engineering project that does not amount to effective practice, and the existence of satisfaction with this experience because of the results it has achieved in terms of rearranging and organizing work according to specific and documented steps. Administrative processes "engineering" leads to an increase in the level of job satisfaction among university employees at all administrative levels, and the application of process re-engineering has led to fundamental modifications to the university's administrative systems in line with the requirements of re-engineering and service improvement.

The researcher recommended the necessity of spreading and promoting the concept of reengineering of administrative processes for all the employees of the Islamic University, including administrators and academics.

### **Third: Foreign Studies:**

Jerva (2001) study entitled: Business Process Reengineering, Systems Design and Analysis, for Making an Integrated Case in the United States of America. This study aimed to test the main business process re-engineering theories and the similarities and differences between business process re-engineering, information systems development, and discussion of business process re-engineering requirements in any information systems development project. The study concluded that the use of business process re-engineering techniques and methods can be Continuous when it coincides with the development of information systems, and that the redesign of business processes with information technology gives the facility the possibility of drastically improving the transfer of information, and increasing the value of information in relation to the content, as well as these benefits lead to facilitating the process of cost reduction and differentiation of products, and that the final benefit so far from The integration of business process reengineering and IT development is the empowerment and continuous participation of workers in decision making.

Olalla (2018) study entitled: Information Technology in Business Process Reengineering in the United States of America. This study discussed the importance of information technology as a facilitator for re-engineering business processes, and



showed that its role is important because it allows the company to adjust its operations in two ways: increasing the degree of cooperation, and reducing the degree of mediation through the implementation of communication technologies and shared databases, and accordingly, information technology helps companies achieve improvements. Important in variables of cost, quality, and delivery time.

### **Method and procedures:**

Study Approach: This study follows a Descriptive Developmental Approach

### **Study population:**

The study population consists of all the deans of colleges in public universities, whose number is (280) deans and (404) department heads.

Study sample: Half of the study population will be (140) deans and (202) department heads, after excluding the stability sample.

### **Study tool:**

To achieve the objectives of the study, the researcher will design a tool by referring to the theoretical literature related to the study, as well as making use of the tools of previous studies related to the subject of the study, through which information is collected on the role of administrative processes engineering in improving knowledge management in Palestinian public universities.

### **Tool validation:**

The researcher verified the validity of the content (the veracity of the arbitrators) of this questionnaire by presenting it to a number of arbitrators with experience and competence in the educational field and outside the study community.

### **Tool stability:**

The researcher verified the stability of the tool according to its different fields, using the internal consistency coefficient (Alpha Cronbach). The stability sample will consist of (20) individuals from the study population and outside its sample, where the reliability factor reached 0.92, which is appropriate for the study procedures.

### **Statistical processors:**

After developing the study tool (the questionnaire) and extracting honesty and consistency, the questionnaire was distributed to the study sample, then the questionnaires were collected, then the data was coded and entered into the computer to extract the required statistics through the SPSS program, and then the data obtained was processed. Through the field study of the researched eye. The following statistical methods were used:

- The arithmetic mean in order to describe the opinions of the study sample about the study variables, and to determine the importance of the expressions contained in the questionnaire, as well as the standard deviation to indicate the degree of dispersion of the answers from their arithmetic mean.
- The (multiple) analysis of variance test, in order to test the degree of the presence of statistically significant differences in the answers of the study sample that are attributed to the nature of sex, experience and job of the sample researched, and to find out the significance of the differences, a cross-test will be used for the post-comparisons.

### **Analysis of the results:**

What is the degree of employing knowledge management in administrative operations in Palestinian public universities?

### **The cognitive diagnostic process:**

Table (8.5) represents the arithmetic mean, standard deviation, and degree of agreement for each paragraph of this dimension.

**Table No. (1) The arithmetic averages and standard deviations of the responses of the sample members related to the first dimension "the process of knowledge diagnosis".**

Clause	Paragraph	Arithm etic Mean	Standard deviation	Arrange ment	Degree of approval
1-	The university has a specialized unit for knowledge management, which has an appropriate budget to support its projects.	3.5838	0.5941	6	Medium
2-	The university has a clear map of knowledge that shows what knowledge it possesses, deficiencies and knowledge gaps it needs.	3.7784	0.6075	3	High
3-	The university endeavors to update its knowledge on a continuous and regular basis.	3.9892	0.4543	1	High
4-	The university uses experts and consultants to determine the knowledge needed to perform its various operations.	3.7780	0.6071	4	High
5-	The university adopts a graphic presentation of knowledge maps (schemes and semantic graphs). To diagnose knowledge.	3.7351	0.4425	5	High
6-	The university regularly identifies the necessary knowledge about new practices in university work.	3.9243	0.5157	2	High
<b>Overall dimension</b>		<b>3.798</b>	<b>0.536</b>		<b>High</b>

- The arithmetic averages of the respondents' responses to the expressions related to the first dimension, "the process of knowledge diagnosis", ranged between (3.9892 - 3.5838). Table No. (1) shows that the general average of the responses of the sample members about the first dimension (the process of knowledge diagnosis), reached (3.798), With a high degree, "and that the average standard deviation was (0.536), and that paragraph (3) obtained the highest arithmetic mean (3.9892) and a standard deviation of (0.4543) (with a high degree), which was stated by" The university seeks to update the knowledge available to it on a continuous and regular basis. " The arithmetic mean of Paragraph No. (6), which reads: "The university regularly determines the necessary knowledge about new practices in university work," which reached (3.9243) with a standard deviation of (0.5157).
- It can be said here that universities seek to keep abreast of developments in their services. This leads them to strive to update the knowledge they possess on a regular and continuous basis, and to identify the knowledge required by the introduction of new services and practices. The motivation here in identifying and

diagnosing knowledge is in line with the new developments and services surrounding the universities.

- With regard to Paragraph No. (6), which reads, “The University has a specialized unit for knowledge management, which has an appropriate budget to support its projects.” Its arithmetic mean was the lowest, as it reached (3.5838) with a standard deviation of (0.5941) (with a medium degree). Here, it must be emphasized the need to establish specialized units for knowledge management in universities. Because of its importance in organizing and planning knowledge.

## 2- Knowledge acquisition process:

Table (2) represents the mean, standard deviation, and degree of agreement for each paragraph of this dimension.

**Table (2) The arithmetic averages and standard deviations of the respondents' responses related to the second dimension “the process of acquiring knowledge”**

Clause	Paragraph	Arithmetic Mean	Standard deviation	Arrangement	Degree of approval
7.	The university relies on its method of work on disseminating innovation and modernization as a method of acquiring knowledge.	3.7784	0.6075	4	High
8.	The university utilizes outside experts and advisors as a means of acquiring new knowledge.	3.7781	0.6075	5	High
9.	The university is working on the apprenticeship method (working with an empowered person) as a means of acquiring knowledge.	3.7243	0.6296	6	High
10.	The university uses brainstorming sessions as a way to gain knowledge.	4.0973	0.4439	2	High
11.	The university holds seminars regularly as a means of acquiring and developing knowledge.	3.9405	0.6005	3	High
12.	The university takes advantage of clients' suggestions as a means of acquiring new knowledge.	4.1514	0.4877	1	High
<b>Overall dimension</b>		<b>3.911</b>	<b>0.562</b>		<b>High</b>

The arithmetic averages of the respondents' responses to the statements related to the second dimension, “the process of acquiring knowledge,” ranged between (4.1514 - 3.7243). Table No. (2) shows that the general average of the responses of the sample members about the second dimension (the process of knowledge acquisition) reached (3.911), With a high degree, and that the average standard deviation was (0.562), and

that paragraph (12) obtained the highest arithmetic mean (4.1514) and a standard deviation of (0.4877) (with a high degree) which stated: “The university benefits from clients’ proposals as a means of acquiring new knowledge ”followed by the average Arithmetic related to Paragraph No. (10), which reads: “The university uses brainstorming sessions as a means of acquiring knowledge,” which reached (4.0973) with a standard deviation of (0.4439).

Here it is necessary to indicate the extent of the universities ’interest in clients’ proposals as a source of knowledge acquisition. Being the most important link in the business; Because of their belief that the customers ’suggestions actually contribute to providing feedback about the banking services provided to them.

With regard to Paragraph No. (9), which reads: “The university works to use apprenticeships (working with an able person) as a means of acquiring knowledge.” Its arithmetic mean was the lowest, as it reached (3.7243) with a standard deviation of (0.6296) (with a high degree). This is an indication of the universities' lack of interest in the apprenticeship method as a means of acquiring knowledge. It prefers for the employee to gain knowledge individually within a group such as brainstorming sessions, workshops and seminars.

### 3. Knowledge Generation Process:

-Table (3) represents the mean, the standard deviation, and the degree of agreement for each paragraph of this dimension.

**Table 3. The arithmetic averages and standard deviations of the respondents' answers related to the third dimension "knowledge generation process"**

Clause	Paragraph	Arithmetic Mean	Standard deviation	Arrangement	Degree of approval
13.	The university encourages knowledge sharing and exchange between employees as a way to generate new knowledge.	3.7459	0.6387	3	High
14.	The university uses the method of regular learning workshops to generate its knowledge.	3.8811	0.7919	1	High
15.	The university uses simulation to generate its knowledge (learning scenarios).	3.6757	0.9341	6	High
16.	The university continuously forms learning teams that are cognitively diverse from internal experts.	3.8378	0.8247	2	High
17.	The university seeks to generate new explicit knowledge by blending and compiling knowledge available in the database.	3.7351	0.7224	4	High
18.	The university relies heavily on external sources in generating its knowledge.	3.7297	0.7241	5	High
<b>Overall dimension</b>		<b>3.767</b>	<b>0.772</b>		<b>High</b>

The arithmetic averages of the respondents' responses to the expressions related to the third dimension "knowledge generation process" ranged between (3.8811 - 3.6757). Table No. (3) shows that the general average of the responses of the sample members about the third dimension (knowledge generation process) reached (3.767), With a high degree, "and that the average standard deviation was (0.772), and that paragraph (14) obtained the highest arithmetic mean (3.8811) and a standard deviation of (0.7919) (with a high degree), which stated that the university uses the method of regular learning workshops to generate knowledge." Related to Paragraph No. (16), which reads: "The university forms learning teams that are cognitively diverse from internal experts on an ongoing basis," which amounted to (3.8378) with a standard deviation of (0.8247). Here, an indication of the interest of universities to work in a team spirit and collectively as a means of

generating knowledge, and this is confirmed by what was previously discussed in the process of acquiring knowledge, where attention was paid to workshops and brainstorming sessions.

With regard to Paragraph No. (15), which reads “The university uses simulation to generate its knowledge (learning scenarios),” its arithmetic mean was the lowest, as it reached (3.6757) with a standard deviation of (0.9341) (with a high degree). Here, the researcher attributes the reasons for the universities’ lack of interest in simulation due to the nature and seriousness of the work. As simulations and learning scenarios are unlikely to be used in generating knowledge for staff within universities.

- What is the degree of employing administrative processes re-engineering in public universities?

### Administrative Process Engineering:

- Table (4) represents the mean, standard deviation, and degree of agreement for each paragraph of this dimension.

**Table (4) the arithmetic averages and standard deviations of the answers of the sample members related to the Administrative Process Engineering dimension**

Clause	Paragraph	Arithmetic Mean	Standard deviation	Arrangement	Degree of approval
19.	Re-engineering administrative processes enables finding radical solutions to all obstacles that hinder workflow	3.8378	.5950	6	High
20.	The methodology of administrative process reengineering is based on change in administrative processes	4.0541	.6144	2	High
21.	Process reengineering aims to fundamentally redesign administrative processes	3.8432	.5919	5	High
22.	Management engineering is a new way of thinking and a radical change with the goal of development	4.1135	.5547	1	High
23.	Management engineering is based on answering two basic questions: Why do we do what we do?	4.0054	.6552	3	High
24.	Education engineering focuses on administrative processes that include a group of activities that address a single input or a number of inputs to produce a specific output.	3.8973	.6471	4	High
<b>Overall dimension</b>		<b>3.958</b>	0.609		<b>High</b>

The arithmetic averages of the respondents' answers to the statements related to the dimension ranged between (4.1135 - 3.8378). Table No. (4) shows that the general average of the responses of the sample members about the dimension amounted to (3.958), with a "high degree" and that the average standard deviation was (0.609), and that Paragraph (22) obtained the highest arithmetic mean (4.1135) and a standard deviation of (0.5547) (with a high degree), which reads: "Administrative engineering is a new way of thinking and a radical change for the purpose of development." Administrative processes engineering. Finding radical solutions to all obstacles that hinder the workflow. Its arithmetic mean was the lowest, reaching (3.8378) with a standard deviation of (0.5950) (with a high degree). Here, it must be pointed out that universities still view administrative engineering with little interest and structural disinterest. The focus of attention here is the operations, and the main goal is not to focus on re-engineering organizational units or structures, but rather on re-engineering how to complete work through changing jobs and tasks, changing organizational structures and changing the behavior of individuals and workers, in the context of the education system this process may be student learning, but In order to improve this, the processes of improvement and development within the system must include the performance of both teachers and learners, not just curriculum development and organizations there a statistically significant relationship at the function level ( $\alpha \geq .05$ ) between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the point of view of the faculty deans due to the variable of gender, experience and academic qualification?

**First: gender:**

To answer, T-test was used for two independent samples according to Table (5).



**Table (5)**

**The results of the t-test for two independent samples to identify the relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the viewpoint of the faculty deans that are attributed to gender**

Gender	Arithmetic Mean	Standard deviation	t-test	Indication
Males	3.49	0.722	0.853	0.501
Females	3.61	0.788		

The statistical analyzes, as shown in Table No. (5), showed that the value of the (t) test reached (0.853) with a significance level (0.501) which is greater than the level of (0.05). Therefore, there is no relationship between the role of administrative processes engineering and improving knowledge management in universities. Palestinian officialdom, according to the college deans' point of view, is based on gender.

### **Secondly, academic qualification:**

To answer, the unilateral analysis of variance was used. Table (6) shows the results of that.

**Table (6)**

**The results of the unilateral variance analysis to identify the relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the point of view of the faculty deans are due to academic qualification**

The source of the contrast	Sum of squares	Degrees of freedom	Average of squares	F	Indication level
Between the groups	2.039	3	0.680	1.0208	0.311
Inside the groups	61.360	339	0.563		
<b>Total</b>	63.399	342			

The statistical analyzes, as shown in Table No. (6), showed that the value of the (F) test reached (0.00) with a level of significance (0.311), which is greater than the level of (0.05). Therefore, there is no relationship between the role of administrative

processes engineering and improving knowledge management in universities. The Palestinian official, according to the deans' point of view, is due to academic qualification.

### Third, job experience:

To answer this hypothesis, a single analysis of variance was used. Table (7) shows the results of that.

**Table (7)**

**The results of a single variance analysis to identify the relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the point of view of faculty deans are due to job experience**

The source of the contrast	Sum of squares	Degrees of freedom	Average of squares	F	Indication level
Between the groups	3.563	3	1.188		
Inside the groups	59.836	339	0.549	2.163	0.096
<b>Total</b>	63.399	342			

The statistical analyzes, as shown in Table No. (7), showed that the value of the (F) test reached (2.163) with a level of significance (0.096), which is greater than the level of (0.05). Therefore, there is no relationship between the role of administrative processes engineering and improving knowledge management in public universities. From the college deans' point of view, it is due to job experience.

**Results:**

- The degree of employing knowledge management in administrative operations in Palestinian public universities was of a high degree.
- That the degree of employing administrative processes re-engineering in public universities was at a high degree.
- There is no relationship between the role of administrative processes engineering and improving knowledge management in Palestinian public universities from the point of view of faculty deans due to gender, academic qualification and job experience.

**Recommendations:**

1. Policies and strategies must be developed that increase the effectiveness of knowledge management and human resource information systems in developing human resource management strategies.
2. Involving employees in specialized courses on knowledge management topics and human resource information systems in order to increase their efficiency.
3. The need to pay attention to activating the process of knowledge diagnosis through the assistance of experts and consultants in determining the knowledge necessary to perform its various operations.
4. The need to pay attention to the process of storing knowledge by emphasizing the establishment of a diverse organizational memory that includes all areas of knowledge related to the activities and services of Palestinian commercial banks and universities.
5. The necessity of creating a specialized department / unit for knowledge management in universities, in order to ensure the continuity of work in an efficient, effective and regular manner.
6. The necessity to emphasize the importance of informal relationships among employees as a means of disseminating and disseminating knowledge.

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