

Knowledge Management Practices and its Relationship to Distance Education in Palestinian Universities: An Exploratory Research

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Abstract: *The aim of this research is learning more about knowledge management practices and its relationship to distance education in Palestinian universities in West Bank and Gaza Strip. It is also aiming to identify all dimensions, axes and components of this phenomenon, and to increase knowledge and familiarity with its various aspects. These aims can help us to understand it well, deepen its study, and open the way for the emergence of new visions and ideas. The research went through two phases: the first was theoretical research through literature review and some official reports, and the second was applied field research within universities, using quantitative and qualitative methods. The research concluded the importance of activating knowledge management practices in the Palestinian universities and investing the potentials for developing distance education.*

Keywords: *Knowledge Management (KM); Knowledge Management Practices; Distance Education (DE); Higher Education; Palestinian Universities.*

Introduction:

To begin with, the exploratory research is an important preliminary step for most scientific research and studies which could be, also, called exploratory research. It is defined as "the preliminary research that is conducted to clarify and determine the nature of the problem. It does not provide definitive evidence for the current problem, because it is unclear and the outcome is not clear; More in-depth research is likely to be conducted at a later time" (Habib, et al, 2014)

By reviewing the methodology of this type of research, it is worth mentioning the following points:

1. This research is used as a means to identify issues that could be the focus of farther research in the future.
2. It is often referred to as expository research; because it is used to give answers for a number of questions.
3. The researcher must be willing to change his attitude subject to the revealing of new data or insight.

Knowledge management and distance education in Palestinian universities is one of the most important topics that cast the light on a set of substantial questions. Such questions including the following: What are the motives and goals behind conducting such a research? What are the stages and steps that had been passed through conducting it? Was it necessary to conduct such an exploratory research? What are the methods and tools used in it? What are the most important results of this research? What are the main manifestations of the problem that has been reached? Are there positive indicators that have been monitored in Palestinian universities that can be invested later? What are the priorities that can be started in any in-depth field research?

First: The objectives of the research:

1. The necessity need for learning more about the issues of knowledge management and distance education.
2. Determining all dimensions of the phenomenon, and increasing knowledge and familiarity with its various aspects, so that we can have deepen understanding for further study in the future.
3. Opening the way for the emergence of new visions and ideas.

Second: The stages of the research:

- **The first stage:** Theoretical research:

By reviewing the literature on the subject, referring to some primary sources such as official reports, and analyzing some of the data contained therein.

- **The second stage:** The field research:

This stage included paying visits to universities, meeting a number of officials in charge of knowledge management and distance learning centers. As well as an interview with the Director General of University Education at the Ministry of Higher Education and Scientific Research. Making, also, interviews with a number of faculty members for exploring their opinion on those topics depending on the reality that they are the representatives of the human limits of research. All the above mentioned points shall be illustrated in details as follows:

Literature review:

The semi-systematic review was used; for a deeper insight into the topic which help us to "identify and understand all relevant traditions of research that are likely to have implications for the topic in question." (Snyder, 2019) At the beginning, an objective analysis of the concepts most relevant to both knowledge management and distance education has been conducted with the aim of

compiling an adequate state of knowledge. Books, scientific theses, articles and conference proceedings were selected from the international academic databases shared by some Palestinian university libraries, such as EBSCO, ERIC, Springer, ProQuest...etc., in addition to some other reports and studies.

- **The concept of knowledge and knowledge management:**

- **Definition of knowledge:**

Merriam-Webster's dictionary¹ defines knowledge as "the fact or condition of knowing something", and also "the condition of understanding the truth through thought or perception." The Oxford Dictionary of Learners² defines knowledge as "facts, information, descriptions or skills acquired through experience or education, and can refer to a theoretical or practical understanding of a topic."

- **Classification of Knowledge:**

Dalkir (2005) classifies knowledge into two categories:

First: tacit knowledge	Second: explicit knowledge
The ability to adapt and deal with new and different situations, know how, know why, care why (experience), ability to collaborate, share vision and transmit culture, and direct to impart empirical knowledge on a face-to-face basis.	The ability to scatter, reproduce and re-present throughout the organization. The ability to teach and train, organize and translate a vision into a mission and into operational guidelines. The ability to transfer knowledge through the method of tangible forms, for example: products and services.

- **The concept of knowledge management in educational institutions:**

"The total of systematic processes that help educational institutions to generate, create, organize, use, circulate and make knowledge available to everyone inside and outside the institution for improving performance and efficient use of intellectual capital in the institution." (Ghabbour, 2012)

"Effective learning processes linked to the exploration, exploitation and sharing of explicit and tacit human knowledge that use technology and the appropriate cultural environment to enhance performance and intellectual capital." (Mohammed, 2014)

- **Components of knowledge management in educational institutions:**

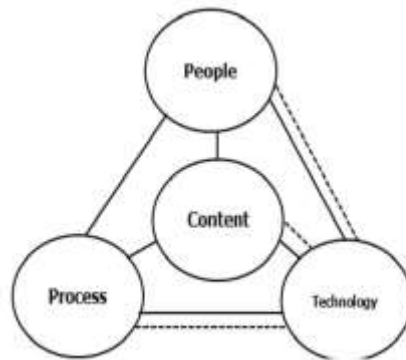
Collison & Parcell (2004) looks at knowledge management as a continuous process that must be viewed as a long-term business strategy and requires synergy between three components, represented by the following:

First: Peoples: It refers to the behavior of the members of the organization in questioning, listening and participating. It also relates to organizational culture, leadership, and how the organization values knowledge as part of business strategy. Individuals are the main actors driving the other two components.

Second: Technology: It is related to the shared and reliable technological infrastructure to facilitate the exchange, storage and creation of knowledge. Members of the organization must understand that they not only have to know how to use technology but also the benefits it can provide to improve organizational productivity and performance.

Third: Process: It simplifies and validates participation. Processes must also be formulated in systematic ways. Knowledge management processes fall into four categories: knowledge creation, retention, sharing, and use.

Figure (1) illustrates the relationship between the three components of knowledge management, which all converge to provide improved content of knowledge that meets the service of stakeholders.



¹ <https://www.merriam-webster.com>

² <https://www.oxfordlearnersdictionaries.com>

Figure 1: illustrates the relationship between the three components of knowledge management

- **The processes of knowledge management in educational institutions:**

Alavi & Tiwana (2003) mentioned that there are four processes of knowledge management, namely: knowledge creation, knowledge storage and retrieval, knowledge transfer, and knowledge application. Franco & Mariano (2007) defined knowledge management processes simply as the storage and retrieval of knowledge. Alosaimi (2016) stated that there are four areas of knowledge: knowledge acquisition, knowledge sharing, knowledge control, and knowledge application.
 - **The concept of distance education and e-learning:**
 - **The concept of distance education:**

UNESCO (2020) defines distance education as "the process of transferring knowledge to the learner at his place of residence or work instead of the learner's transfer to the educational institution, and it is based on the delivery of knowledge, skills and educational materials to the learner through different media and technological methods, where the learner is far separate from the teacher or the person on charge of the educational process, and technology is used in order to fill the gap between each of the two parties in a way that simulates the face-to-face contact."
 - **The concept of e-learning:**

E-learning includes what is known as online learning "which is a type of distance education in which teachers and learners are physically separated and instruction and content are delivered primarily online. An online course or subject matter in which 51 percent or more is delivered online. Often complete online basic education through meetings or face-to-face supervision (sometimes called blended learning)." (SALCC, 2021)
 - **E-Learning objectives:**

Islam, et al. (2011) stated that the general objectives of e-learning from the point of view of academics and practitioners whose opinions were surveyed, are summarized in three general objectives:
First: Access to the assets of knowledge easily and provide education for all.
Second: Enhancing learning experiences using ICTs and improving the learning platform.
Third: Archiving learning resources, managing all kinds of knowledge, and facilitating research.
 - **E-Learning Categories:**

Zemsky and Massy (2004) suggest that there are three main categories of e-learning:

 1. E-Learning as Distance Education: This refers to courses that are offered entirely or almost entirely online.
 2. E-learning as learning through technology: This category includes any teaching or learning that takes place through the use of technology and by any electronic means.
 3. E-Learning with Accessible Software: This category includes software used to organize and manage teaching and learning, and learning management systems such as Blackboard and WebCT commercial products, as well as open source products such as Moodle.
 - **The relationship of knowledge management with e-learning:**

In general, knowledge management should have a significant impact on education, as one of the main functions of education is the transfer of knowledge. Educational institutions can use the potential of knowledge management practices to create quality knowledge for student learning, particularly through an e-learning environment. (Lee, 2009)

According to Barron (2000) & Allee (2000) IT and e-learning can play a crucial a role in the knowledge creation process through supporting the individual student learning process, as well as supporting collaborative interactions between teachers and students.

E-learning technology develops separately from knowledge management technology. The difference between them is that the former, as a system, provides information and content to students who use ICT, while the latter focuses on knowledge management and sharing. There have been recent studies on the integration of these technologies in the direction of knowledge management and integration.
 - **Which one is more general and comprehensive than the other:**

Lamont (2003) states that some researchers and companies view e-learning as part of knowledge management, while others assume that knowledge management is a tool that could be used in the e-learning process. He also assumes that e-learning is a static template, while knowledge management is able to transform it into a dynamic process. Hence, through the integration of knowledge management and e-learning, the learning experience will come closer to the real work experience.

Knowledge management and e-learning are closely related; because e-learning users need proper knowledge management that can help them in obtaining the type of content they need, along with correct and complete information as much as possible. (Islam, et. al, 2011)
- Conclusion:**
- In conclusion, knowledge management and e-learning include the acquisition, exchange, application, and production of knowledge. These two important issues have their sizable technological elements that ultimately enhance learning. Knowledge
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management and e-learning contribute to creating a culture of continuous learning based on knowledge or learning axes. (Shamizanjani, 2013).

Third: Research methods and tools:

It should be noting that this exploratory research used quantitative and qualitative methods to achieve the aforementioned goals which shall be explained as follows:

1. Quantitative Methods:

Where it allowed access to the following:

- Monitoring some significant statistical indicators about Palestinian higher education and its institutions in general and its universities in particular. These statistical indicators cover their number, distribution according to their type and supervision point, beside their geographical area.
- Monitoring some significant indicators of performance in Palestinian universities including: the number of faculty members in educational institutions and their distribution according to academic rank. The ratio of the number of faculty members to the number of students, and the ranking of Palestinian universities according to the local, Arab and international levels.

Perhaps the questions that rise here are, how were we able to monitor those aforementioned indicators? What are the tools that were relied upon?

For answering the previous question, it was necessary for us to refer to the latest and most recent official reports issued by the Ministry of Higher Education and Scientific Research, by virtue of the fact that it is the body that undertakes the general supervision of the higher education sector in Palestine. In light of the foregoing, we note that the annual statistical directory of Palestinian higher education institutions for the year (2020/2021) has been relied upon. By reading and analyzing some of the data contained therein, it is possible to review some of the indicators that have been monitored about the reality of Palestinian higher education and its institutions, as follows:

- Numbers of Palestinian higher education institutions, and their distribution according to the type of institution, the direction of its supervision, and its geographic area (West Bank and Gaza Strip)
- Numbers of faculty members in educational institutions, and their distribution according to academic rank.
- The ratio of the number of faculty members to the number of students in educational institutions.
- Ranking of Palestinian universities at the local, Arab and international levels.

Table No. (1) clarifies the numbers of Palestinian higher education institutions and their distribution according to type of institution, supervision point, and geographic area (West Bank and Gaza Strip)

Institution's kind	Supervising Body	West Bank	Gaza	Total
Traditional universities	Governmental	2	1	3
	General	6	2	8
	Private	2	3	5
	Total	10	6	16
University colleges	Governmental	5	3	8
	General	1	0	1
	Private	4	2	6
	UNRWA	1	0	1
	Total	11	5	16
Medium Community Colleges	Governmental	0	1	1
	General	6	1	7
	Private	4	2	6
	UNRWA	1	2	3
	Total	11	6	17
Open Education	General	1	0	1
	Private	1	0	1
	Total	2	0	2
Grand Total		34	17	51

Source: Prepared by the researcher, based on the Annual Statistical Manual (2020/2021) for Palestinian Higher Education Institutions (2021), and the Ministry of Higher Education and Scientific Research, Ramallah, Palestine.

By analyzing the data in the above table, we notice the following:

- It is noted that the total number of Palestinian institutions of higher education universities and others reached (51) institutions until the year 2020/2021. This is a good indicator in light of some criteria that compare the number of universities to the

number of Palestinians in the population, which reached (5,354,656) people, according to the latest and most recent population census survey issued by the Palestinian Central Bureau of Statistics for the year 2022.³

- West Bank includes the largest percentage of Palestinian institutions of higher education, as there are about (34) institutions out of the total (51), or a percentage of (66.6%). About (5000 square kilometers) is much larger than the area of the Gaza Strip, which is (365 square kilometers only), and it also includes the largest number of residents and the number of governorates. The number available in the Gaza Strip is also a good indicator in light of its small area.
- There are (16) traditional universities in West Bank and Gaza Strip. Traditional universities offer present education, or what is known in Palestine as face-to-face education, and they award various scientific degrees such as, bachelor's, higher diploma, master's, and doctorate.
- It is noticeable that there are few universities that offer open education. They are only (2) universities that offer blended education. Perhaps this is due to the fact that this type of university needs technological and financial capabilities. Noting that Al-Quds Open University⁴ is considered the first university for blended education in the Arab world.
- There are only three public universities, which are managed and financed by the Palestinian National Authority, and they are under the full supervision of the Ministry of Higher Education and Scientific Research, and it is in charge of spending on them at a rate of (100%) of income.
- The majority of other Palestinian universities are subject to public supervision, and they are not-for-profit, as they were established by public bodies and institutions, charities, NGOs, and non-governmental organizations. Noting that most of them were established during the occupation era - that is, before the signing of the Oslo Peace Agreement and the establishment of the Palestinian National Authority in 1994. Public universities also spend entirely on themselves, and depend on collecting donations, gifts and aids, student tuition fees, and some partial government funding which breaks from time to time; As a result of the financial crises faced by the Palestinian Authority due to the practices of the Israeli occupation.
- Although the ministry does not spend on public or private universities; however, it supervises them and grants the necessary licenses for the opening of new programs and specializations according to specific rules, conditions and criteria that must be adhered to.
- It is noticeable that there are no virtual universities or what are known as electronic universities, and this may be due to the lack of material or technological capabilities.
- In an interview with the Director General of University Education in the Ministry, he stated that work is underway to establish such universities, particularly after the Corona pandemic and the subsequent shift to distance education.

Table No. (2) shows the numbers of faculty members (educational academics) in educational institutions for the year (2020/2021), and their distribution according to job rank.

The number of faculty members in traditional universities is (5,396)				
Professor (365)	Associate professor (500)	Assistant professor(1974)	Lecturer (969)	Teacher (1588)
The number of faculty members in university faculties is (794)				
Professor (39)	Associate professor (8)	Assistant professor (230)	Lecturer (337)	Teacher (180)
The number of faculty members in intermediate community colleges is (528)				
Professor (3)	Associate professor (1)	Assistant professor (40)	Lecturer (311)	Teacher (173)
The number of faculty members in open education institutions is (385)				
Professor (82)	Associate professor (55)	Assistant professor (112)	Lecturer (103)	Teacher (87)
The total number of faculty members (educational academics only) in educational institutions is (7,103) academic staff.				
Important note: The total number of workers (academics staff and others) in all educational institutions is (17,048) male and female workers.				

Source: Prepared by the writer of the research, based on the Annual Statistical Manual 2020/2021 for Palestinian Higher Education Institutions (2021), and the Ministry of Higher Education and Scientific Research, Ramallah, Palestine.

By analyzing the data in the above table, the following becomes clear:

- It is noted that the total number of educational academics - as they are called in the Ministry's Annual Statistical Manual - in higher education institutions for the academic year 2020/2021 reached (7,103) academics, constituting (17%) of the total

³ https://www.pCBS.gov.ps/site/lang_ar/881/default.aspx#PopulationA , Access: 27 March, 2022.

⁴ <https://www.qou.edu> , Access: 27, March, 2022.

number of employees (17.048). It is notable that it is considered an insufficiently low percentage in light of some international standards that compare it to the number of students, as we will explain later in Table No. (3)

- The percentage of holders of a doctorate degree out of the total educational academics was about (48.6%), with reference to the disparity in universities among them which is considered a low indicator. Perhaps this is due to the small number of PhD degree programs in Palestinian universities, their modernity, and the travel difficulties imposed by the Israeli occupation on researchers and students.
- The traditional universities comprise the largest proportion of the number of educational academics, as (76%) of the total number are employed in them, with a large difference from the university colleges in which only (11%) work in it, and (7.5%) in intermediate community colleges where only (5.5%) are working for the open education.

Table No. (3) shows the ratio of the number of faculty members to the number of students.

Number of faculty members	Number of students	Percentage
(7.103)	(214.765)	One lecturer for every thirty students (1:30)

Source: Prepared by the writer of the research, based on the Annual Statistical Manual 2020/2021 for Palestinian Higher Education Institutions (2021), and the Ministry of Higher Education and Scientific Research, Ramallah, Palestine.

By analyzing the data in the above table, the following becomes clear:

- It is noted that the total number of registered and regular students in Palestinian higher education institutions for the academic year 2020/2021 is (214,765). We find that the current ratio is (1:30), that is, one professor for every thirty students, and this ratio is a bad indicator, as it affects the level of educational quality. Bearing in mind that the acceptable ratio in international universities according to (universities classification site)⁵ is (1: 20) that is, one professor for every twenty students.

Table No. (4) shows the ranking of the first ten Palestinian universities at the local, Arab, and International levels, as mentioned in the international classification (Webometrics)

University	Rank		
	Local level	Arabic level	International level
An-Najah National University.	1	30	1640
Birzeit University.	2	65	2244
Islamic University.	3	84	2481
Quds University.	4	108	2996
Al Azhar university.	5	189	4026
Al-Aqsa University.	6	214	4302
Arab American University.	7	218	4326
Palestine Technical University, Kadoorie.	8	259	4847
Bethlehem University.	9	276	5097
Al-Quds Open University.	10	292	5284

Source: Prepared by the writer of the research, based on the international classification (Webometrics) on its website.

Note: It is worth noting that a number of classifications issued by various parties about the university ranking have been viewed. Each classification has its own criteria, and we are not here to talk about those criteria as our dependence is on the international classification (Webometrics)⁶. This classification aims primarily to promote open access to the knowledge generated by the university which is consistent with the topic of the current research that deals in part with the issue of knowledge management.

By looking at this classification on its official page on the internet; it has been found that the best strategy to improve university's rank in this classification is to increase the quantity and quality of its web contents, and we here mean knowledge in its general mean and aspects. It should be noted that this arrangement is not for the universities' web pages, but rather is an arrangement for the universities themselves. It uses both web indicators (all tasks) and bibliometric indicators (search task).

By analyzing the data in the above table, the following becomes clear:

- Despite the capabilities that the Ministry provides to government universities that take over supervision and complete spending on them, it is noticeable that the first five universities at the local level are public universities, non-governmental universities. This did not enable it to advance in the rank of public universities.
- There is no private university in the ranking of the first ten universities at the local level, which can be traced back to its recent establishment.

⁵ <https://www.topuniversities.com/> , Access: 29 March, 2022.

⁶ <https://www.webometrics.info/en> , Access: 01 April, 2022.

- One university was ranked among the best (30) universities at the Arab level, which is Al-Najah National University in the Nablus Governorate in the West Bank. (3) Universities were ranked among the first (100) universities, out of (1,346) universities included in this classification at the Arab level which give a good indication.
- (4) Palestinian universities are among the (10%) best in the world in this classification, where the university ranking fell in order between the number (1640), which is for An-Najah National University, and is considered among the best (5.5%) globally. (2244) for Birzeit University, (7.5%) among the best (Globally). (2481) for the Islamic University among the best (8.3%) globally. (2996) for Al-Quds University, which is considered among the best (10%) globally. This is out of about (30,000) universities ranked at the international level.
- In spite of the fact that some Palestinian universities rank advanced on the Arab level; however, it has a great need to improve its ranking at the international level. In order to promote open access to the knowledge generated by universities which could be achieved by increasing the quantity and quality of knowledge and its dissemination and sharing across the widest scale through its portals and pages on the Internet. This can only be achieved by making a good investment of its knowledge management.

2. Qualitative Methods:

Where it allowed access to the following:

- Monitoring some important qualitative indicators about knowledge management, in terms of the extent of its application, the extent to which its concept and importance are understood, the extent to which human resources are qualified, specifically the faculty members, the availability of technologies for appropriate knowledge generation and knowledge management. And the extent of the application of multiple knowledge management processes (generating and acquiring knowledge, storing and organizing knowledge, sharing knowledge, and applying knowledge)
- Monitoring some important qualitative indicators about distance education, in terms of the extent to which universities are oriented towards it, the extent to which the concept and its importance are understood, the quality of its inputs, the quality of its operations, and the quality of its outputs.

Perhaps the question that arises here is, how were we able to monitor those aforementioned indicators? What are the tools that have been relied upon?

To answer the previous question, the method of semi-structured interviews was relied on as a support method. To arrive at an accurate diagnosis of the problem of the current research, to know all its dimensions, and to understand its various aspects. The general framework of the interviews can be clarified as follows:

- **Individuals who were interviewed:**

1. Those responsible for the units of knowledge management, in order to see the extent of the practice of knowledge management applications.
2. Those in charge of distance learning centers, in order to see the applications of distance education.
3. A sample of the faculty members, and it has been taken into account that it includes males and females, and holders of different scientific degrees and ranks, and from scientific or human faculties. This is in order to arrive at various realistic and realistic indicators.
4. The Director General of University Education at the Palestinian Ministry of Higher Education and Scientific Research, in order to see the Ministry's efforts in supporting universities and developing distance education.

- **Type of interviews:**

1. One-on-one interviews at different intervals.
2. Group interviews using the method of (focus group), as the opportunity of holding a workshop on developing university teaching curricula in the shadow of the Corona pandemic on April 05, 2022, which is organized by the Ministry of Scientific Research at its headquarters in Gaza City. These workshops were attended by representatives and experts from Palestinian universities.

- **Type of questions:**

1. Open-ended question.
2. Closed questions.

- **Topics covered in the interviews:**

1. Knowledge management axis: It included (the extent of awareness of the concept and its importance, the availability and qualification of human resources, the availability of appropriate technologies, and the extent to which knowledge management processes are used)
2. Distance education axis: It included (the extent of awareness of the concept and its importance, the quality of the inputs, the quality of the processes, and the quality of the outputs)
3. The relationship axis: It included (the extent of the clarity of the relationship between knowledge management and distance education.)

Fourth: The results of the interviews, and the most important aspects of the problem that were reached:

The exploratory research procedure showed a set of results, which are challenges and problems that should be studied in depth, and they can be clarified as follows:

1. Challenges and problems related to distance education, as follows:

- There is a weakness in the faculty members' possession of some skills - they are called in the field of educational sciences the term “educational competencies” which is represented in the following:
 - Skills of methods and techniques of distance teaching.
 - Instructional design skills - specifically the design of new electronic courses - which is one of the important skills in the field of educational sciences and distance education.
 - Skills of converting existing courses from the traditional form to the appropriate electronic one; which achieves the educational goals.
 - The skills of creating high-quality interactive digital content that supports academic courses.
 - Skills of preparing electronic tests and appropriate assessment methods and feedback, which would achieve the acceptable level of quality distance education.
 - Investment skills of the various resources available in the distance learning platform, which is (Moodle); the faculty members do not invest these resources well in achieving interaction and communication with students.
- There are shortcomings in the electronic teaching curricula, as many have indicated that the traditional curricula in its current form are not suitable for distance electronic teaching. Therefore, there is necessity need to be developed.
- Some universities do not adopt a clear strategy for distance education, and some do not benefit from the best practices in the field of distance education. Therefore, we find that it does not pursue a policy of distance education simultaneously with traditional education, and it has now become clear, after easing the package of health measures for the Corona pandemic, that only duties and some assignments are given remotely and via the virtual platform (Moodle).
- A guide to policies and procedures for the implementation mechanisms of distance education is not available except in a few universities.
- There are no performance indicators related to distance education in the majority of universities.
- The change management approach with regard to distance education has not been adopted in the majority of universities.

2. Challenges and problems related to knowledge management, represented in the following:

- The lack of an organizational culture and an educational environment that encourages the continuous sharing of knowledge.
- No support from universities for the creation of virtual communities of practice such as: learning networks and special interest groups; In order to share knowledge, specifically tacit knowledge, which, if it exists, will undoubtedly support the development of distance education in general.
- A large percentage of faculty members do not employ technological tools for sharing knowledge that depend on the presence of the Internet, such as: wikis, blogs, or others; This is due to their weak possession of technological skills or competencies.
- The reluctance of many faculty members to share their knowledge with their colleagues, for various reasons, such as:
 - Unwillingness to share knowledge with the others.
 - Fear of catching mistakes when sharing knowledge.
 - Fear of competition between colleagues upon sharing knowledge.
 - Lack of a system of rewards and incentives for those interested in sharing knowledge.

Fifth: Positive indicators that have been monitored and can be invested:

The exploratory research procedure showed the presence of positive and supportive indicators that can be invested in activating the role of knowledge management for developing distance education which are shown as follows:

1. Positive indicators for the Ministry of Higher Education and Scientific Research:

- The Ministry has announced that the strategy in the next stage will be the digitization of higher education. The purpose of such announcement is to organize the digital transformation process in higher education institutions, considering mechanisms of distance education will be used in different programs and courses in the coming future.
- The Ministry is working on preparing a draft system for distance education, a Palestinian normative frame of reference emanating from the Arab and international normative frame of reference in addition to a comprehensive procedural guide. These systems will be discussed during meetings of the Council of Presidents of Universities and the Council of Higher Education before presenting their framework to the Council of Ministers. In need to issue a law regulating distance education in Palestine.
- With the international partners, the Ministry is looking to provide the necessary funding to conduct a study for developing a national platform for distance education. Such a platform would include virtual classroom, electronic courses, student submission of exams, and mobile learning. The knowledge base would include educational content for its educational purpose

with its ease of storage and access at any time so that it would be available with all types of files to facilitate students' participation.

- The Ministry is preparing a package of training programs for faculty members on how to integrate students into distance education through additional training in the field of educational content design, evaluation mechanisms and the use of different platforms.
- The Ministry provided a number of higher education institutions with technological devices represented by servers and digital device accessories for use in distance education.
- Regarding the practical courses "labs", the Ministry confirmed that work is underway to help higher education institutions for developing virtual laboratories. Working in reducing the cost of workshops by converting private laboratories into virtual laboratories and allowing participation of students from anywhere and anytime.

2. Positive indicators for the universities:

- The majority of universities employing the use of knowledge management in their various academic and administrative sectors.
- The majority of universities have an electronic system for storing, organizing and retrieving knowledge that is easy and secure.
- The higher administrations of universities endorse and support faculty members in the use of knowledge management, and therefore develop their skills and qualify them appropriately to deal with knowledge management.
- Universities have an accessible knowledge base and digital repository of content and intellectual production.
- Universities constantly update the technological infrastructure for distance education, and periodically provide the necessary technical support during the distance education process.

3. Positive indicators for the faculty members :

- There is an awareness among a large percentage of the faculty members of the concept of knowledge management and its importance in improving their performance and improving the outcomes of the educational process.
- There is awareness among a large percentage of the faculty members of the importance of distance education, and this increases the degree of orientation towards it and the mastery of its tools.

Sixth: The priorities that can be started with in-depth field research later:

In light of the foregoing preliminary results, road map can be drawn up to determine the priorities that can begin to be studied in depth later.

These priorities shall be illustrated as follows:

1. The stage of reviewing the literature on the subject of knowledge management and distance education, through:

- Examine the primary books on the subject, and refereed scientific articles; In order to build a conceptual framework.

2. The stage of studying and measuring the extent to which knowledge management practices are applied in Palestinian universities through:

- **Preparing interview cards:** they can be conducted with those responsible for knowledge management units or their representatives; To measure the degree of application in light of some of the proposed axes that constitute the requirements of knowledge management, such as:
 - Availability of a strategy (vision, goals, values and programs) with regard to knowledge management.
 - Extent of providing the resources (human, financial and technological) necessary for the application of knowledge management.
 - Availability of a manual of policies and procedures with regard to knowledge management.
 - Extent of setting performance indicators related to knowledge management.
 - The extent to which the leadership (the higher management of universities: the president, vice-presidents, and deans of faculties) has adopted the knowledge management approach.
 - The extent to which the change management approach is adopted in relation to knowledge management.
 - Challenges and difficulties they encountered in applying knowledge management.
 - Suggestions about activating the role of knowledge management in developing distance education in universities.
- **Preparing questionnaires:** they can be distributed to a sample of faculty members in Palestinian universities; To know their perceptions about the degree of application of knowledge management practices (as an independent variable) in light of some of the proposed axes that constitute the components of knowledge management, such as:
 - First axis: The extent of awareness of the concept and importance of "knowledge" and "knowledge management".
 - Second axis: Personnel (Human Resources).
 - Third axis: Technology.
 - Fourth axis: Knowledge management processes (knowledge generation, knowledge storage, knowledge sharing, and knowledge application.)
 - Fifth axis: The reasons that motivate some faculty members not to share knowledge.
 - Sixth axis: The challenges and difficulties they encountered in applying knowledge management.

- Seventh axis: Suggestions on activating the role of knowledge management in developing distance education in universities.
- 3. The stage of studying and measuring the extent to which distance education practices are applied in Palestinian universities through:**
- **Preparing interview cards:** It can be conducted with those responsible for units or distance education centers or their representatives; To measure the degree of application in light of the proposed axes that constitute distance education dimensions, such as:
 - Availability of a strategy (vision, goals, values and programs) with regard to distance education.
 - Extent of providing the resources (human, financial and technological) necessary for the implementation of distance education.
 - Availability of a policy and procedures manual with regard to distance education
 - The extent of developing performance indicators related to distance education.
 - The extent to which the leadership (the higher management of universities: the president, vice-presidents, and deans of faculties) has adopted the distance education approach.
 - The extent to which the change management approach is adopted with regard to distance education.
 - Challenges and difficulties they encountered in applying distance education.
 - Proposals for the development of distance education in universities.
 - **Preparing questionnaires:** They can be distributed to a sample of faculty members in Palestinian universities; To know their perceptions about the degree of application of distance education (as a dependent variable) in light of some of the proposed axes that constitute the dimensions of distance education, such as:
 - First axis: The extent of awareness of the concept and importance of distance education.
 - Second axis: Distance education inputs (infrastructure, requirements and environment.)
 - Third axis: Distance education processes (teaching methods and techniques, educational design, digital content industry, electronic assessment and exams, feedback.)
 - Fourth axis: Distance Education Outcome.
- 4. Conducting in-depth field research, analyzing data and indicating the correlation coefficient in the relationship and impact between the components of knowledge management and distance education (whether the components are singular or combined), then presenting, interpreting and discussing the results.**
- 5. Presenting the proposed concept or model for the integration of knowledge management with distance education, then coming up with the final conclusions and recommendations.**

Conclusion:

Considering the results of the exploratory research; it can be emphasized that these results are inconclusive and preliminary results. From the standpoint on these results initial questions could be raised, and preliminary hypotheses about these issues could be formulated too. During the in-depth field research, changing in the direction of the research or part of it could be possible depending on revealing new data or vision considering these issues.

In conclusion, it can be said that the objectives behind conducting this research, which were represented by the urgent need for learning more about the practices of knowledge management and its relationship to distance education in Palestinian universities (West Bank and Gaza Strip). Identifying all the dimensions, axes and components of this phenomenon and the various knowledge we have access to it. Understanding it so we can deepen its study, and open the way for the emergence of new visions and ideas which have already been achieved and the picture has become clearer. Hence, any in-depth field research on these practices and their relationship to distance education can be completed with ease in the future.

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