

Using the Asian Knowledge Model “APO” as a Determinant for Performance Excellence in Universities- Empirical Study at Al -Azhar University- Gaza

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ABSTRACT

This study aims to use the Asian knowledge model “APO” as a determinant for performance excellence in universities and identifying the most effecting factors on it. This study was applied on Al-Azhar University in Gaza strip.

The result of the study showed that (APO) model is valid as a measure and there are four dimensions in the model affecting significantly more than the others (university processes, KM leadership, personnel, KM outputs). Furthermore, performance excellence produced though modernizing the means of education, curriculum development, technology and flexibility in the organizational structure.

The study recommends expanding the usage of (APO) model, enhancing the role of knowledge leadership, technology, organizational flexibility, sharing culture and incentive systems that encouraging innovation.

Keywords: *Asian knowledge model, APO, Performance Excellence, universities, Al -Azhar University, Gaza, Palestine.*

1. INTRODUCTION

Knowledge management in educational institutions represents the essence of the work of these organizations, as they produce and manage knowledge through human and technical activities and practices aimed at connecting individuals from different administrative levels and sections in the form of working groups with mutual trust. Automatically results in sharing their own resources, supporting individual and group learning processes, thereby improving individual and organizational performance.

The universities are organizations that generate knowledge, and contribute effectively to shaping the content of the future and to increase human and scientific understanding. This has made many universities realize the importance of achieving excellence, which requires leadership of change that recognizes challenges and is matched by scientific thinking to adapt outputs to labor market requirements.

The Organization's performance is the common denominator of all efforts by management and institutional staff, in the pursuit of excellence that means greater excellence and success than others. The organization is distinguished by its ability to innovate, learn, work transparently and keep abreast of global developments. This distinction is no longer dependent solely on financial indicators, but includes non-financial indicators such as knowledge management, leadership, technology, and market orientation towards customers.

The measurement of knowledge management in the organization is an important process that should not be overlooked and only the application of knowledge management processes. The objective of measurement should be clear and within valid criteria based on successful experiences with the ability to identify cognitive gaps that need to be addressed in order to take full advantage of the knowledge that it possesses, followed by procedures to improve performance and efficiency to meet future challenges and achieve outstanding performance.

As a result, researchers sought to study the use of the Asian knowledge model “APO” as a benchmark for university performance while adapting the components of the model to suit educational institutions and the local environment.

2. PROBLEM STATEMENT

The knowledge management measurement models define institutional maturity stages in the area of performance excellence that the organization is expected to undergo in order to improve its practices, especially those that rely mainly on the creation and dissemination of knowledge such as educational institutions and thus improve overall performance.

The ability of educational institutions to measure their knowledge management enables them to evaluate their performance and prepare their staff to meet future challenges. Knowledge management measurement is a diagnostic test and assessment of the health and effectiveness of the organization's knowledge management program, efforts and practices. This is the first step towards improvement. The institution cannot improve what cannot be measured.

One of the main obstacles facing the institution in measuring knowledge management is the development of measurement standards that can be used to assess the effectiveness of the organization in managing its knowledge assets, and to obtain indicators to measure the organization's capacity in terms of knowledge creation, diffusion and transfer, as well as knowledge management methods, strategies and methodologies. This also includes identifying performance gaps between what the organization is currently doing and what it should know to achieve the required level of performance. The problem of the research can thus be shaped into questions such as:

Q1: What are the most influential factors in the performance of educational institutions resulting from the measurement of knowledge management?

Q2: How is the measurement of knowledge management related to performance and its future benefit in improving performance?

3. RESEARCH IMPORTANCE

The measurement of knowledge management occupies a growing importance in the field of knowledge management, so it has developed and continues to develop a variety of standards applied by organizations that must be tested for their applicability. The emergence of the knowledge management field has created an urgent need to develop standards and standards employed to convince management and owners by using these metrics to calculate the value of KM initiatives and measure their impact on the organization's performance.

Measuring knowledge management helps management identify the efficiency of knowledge management processes in the organization, determine the maturity level of knowledge management in the organization, and assess and improve performance.

The model used in this research can be circulated to universities operating in the State of Palestine and the use of the Asian knowledge model "APO" as a benchmark for university performance.

4. RESEARCH HYPOTHESIS

H01: There is no statistically significant effect on the use of the Asian knowledge model "APO" as a benchmark for university performance.

It has the following sub-assumptions:

H01-1: There is no statistically significant effect of knowledge management leadership on performance excellence.

H01-2: There is no statistically significant effect of the University's operations on performance excellence.

H01-3: There is no statistically significant effect of personnel on performance excellence.

H01-4: There is no statistically significant effect of technology on performance excellence.

H01-5: There is no statistically significant effect of knowledge processes on performance excellence.

H01-6: There is no statistically significant effect of learning and creativity on performance excellence.

H01-7: There is no statistically significant effect of knowledge management outputs on performance excellence.

5. RESEARCH LIMITS AND SCOPE

1. **Subject Limit (Academic):** The objective of the study was to study using the Asian knowledge model "APO" as a determinant for performance excellence in universities and identifying the most effecting factors on it. This study was applied on Al-Azhar University in Gaza strip.
2. **Human Limit:** The study was conducted on administrative staff and academics at Al-Azhar University in Gaza.
3. **The spatial limit:** The study was conducted in the State of Palestine.
4. **Time Limits:** The study was conducted in 2017.

Knowledge Management in Higher Education Institutions

The institutions of higher education in their own right are institutions with a knowledge-based capacity, as their primary function is knowledge-based, in the production of knowledge, documentation and dissemination. There is a growing belief that knowledge management in educational institutions helps to build a dynamic learning environment with a promising future, improving knowledge sharing activities, and overall improving and improving the overall performance of the organization (Abu Jallakh, 2016) and (Syysnummi & Laihonen, 2014).

Ramachandran et al. (2013) defines knowledge management in higher education institutions as "a systematic attempt to develop and implement knowledge practices in higher education institutions supported by key strategic assistance factors". Petrides & Nodine (2003) define it as "frame or method enables individuals working in the educational institution to develop a set of practices to collect information and share what they know, resulting in behaviors or actions that improve the level of services and products provided by the educational institution". While Laal (2011) defines it as "the process of transforming information and intellectual assets into a continuous value that connects individuals with the knowledge they need to take the necessary action when they need it.

It is clear from the previous definitions of knowledge management in educational institutions that they are similar to knowledge management in industrial or service organizations in terms of processes and activities, with a focus on linking individuals and management to enhance the quality of outputs and achieve a competitive advantage in performance and outputs were society and community members are the main beneficiaries of higher education institutions.

The higher education institutions in general are the most institutions to implement knowledge management fully and intensively in their management and services because of the large numbers of participants, the diversity of disciplines, activities and needs, the standardization of the work method and the interrelationship of those who require close and rapid follow-up (Abu Jallakh, 2016) and (Sawy, 2007).

Universities, scientific research centers, specialized scientific and academic institutes have a special nature in their activities, fields of work and their employees. They are research centers that seek to enrich scientific, intellectual and knowledge, and practical centers for the graduation of qualified human cadres to meet the needs of local and foreign labor institutions. They are also advisory centers that provide excellent services to the business, civil, local and regional communities they serve (Jad Al Rab, 2010). An important reason to consider the university environment as one of the most appropriate environments for the application of knowledge management (Mikulecka & Mikulecky, 2005):

- Universities have a technological infrastructure.
- The spread of trust and knowledge sharing is normal in higher education institutions.

- By joining universities, students aim to acquire knowledge.

The most important reasons for the adoption of knowledge management are shown in Table 1 (Hanouna and Al-Awadhi, 2011):

Table 1: Reasons for adopting knowledge management

Importance	Percentage
Maintain and maintain experiences	%51.9
Increase customer satisfaction	%43.1
Improve revenue and revenue	%37.5
Shortening product development cycle	%23
Support initiatives	%24.7
Providing electronic products and services	%11.7

Critical factors for knowledge management in higher education institutions

One of the most critical factors affecting the exchange of knowledge in educational institutions is the following:

- **Advantages and Rewards:** While it is important to share knowledge among organizational staff and their ability to enhance organizational performance and enhance competitiveness, research on this subject within educational institutions is few. However, Hislop (2013) suggested that one of the issues of concern to staff was to assess the advantages and disadvantages of the exchange of their knowledge. Benefits can be real rewards to improve the organization's performance and stability. The big mistake is that participation "is likely to give up the source of strength and experience to others.

While Bock et al. (2005) notes that "the benefits of social exchange cannot be quantified, but involve personal commitment, gratitude and trust," this could be a more important factor in academic circles because of the focus on the dissemination of basic research which is A very individual undertaking.

- **Leadership style:** Leadership plays a pivotal role in promoting and developing knowledge exchange behavior by contributing to employee experiential learning, providing opportunities for process management, developing IT systems, reward systems, opportunities and interaction (Sandhu et al., 2011; Rivera & Rivera, 2016). When management at different levels supports knowledge management, staff recognize that a knowledge-sharing culture is pervasive in the organization, and therefore the ideals offered by management can be very useful.

The role of the leader can be quite different in educational institutions where there are two types of leadership, academic leadership and interest in highlighting knowledge, professional perception, experience, personal qualities and teams, hierarchical administrative leadership and its features of work responsibilities, control and giving authority to the site instead of the person. Is widely used in traditional educational institutions, while administrative leadership

is associated with the corporate pattern model adopted by many educational institutions, but there can be considerable tensions when people with managerial abilities judge academic conditions (Fullwood et al., 2013).

- **Organizational culture:** There is a considerable debate about the role of culture in educational institutions in the field of knowledge management and exchange. For example, Cronin discussed the disparity between the existences of recognized corporate cultures such as HP's "HP Way" culture, with no such global culture in any educational institution (Fullwood et al., 2013). Lee said that academic departments are complex and that cultures may be different between departments in different disciplines (Cranfield & Taylor, 2008). It remains here that the academic community has a more participatory culture than other organizations, and that collaboration is at the core of knowledge management.
- **Organizational structure:** An important factor in knowledge management since the structure of educational institutions differs significantly from administrative organizations or public sectors. This structure may be a major obstacle to the exchange of knowledge, and physical and psychological barriers may be other barriers. This can lead to individualism. Academics are seen as individuals loyal to their administrations and as members of other subcultures, and there may be different administrations with opposing ideologies and values (Rivera & Rivera, 2016).

There are some examples of the exchange of knowledge in educational institutions through practice communities, which are described as groups of individuals linked together by their enthusiasm to exchange and expand their knowledge. Organizational structures should be designed flexibly to encourage cross-border participation and cooperation within the organization, Formal and non-hierarchical organizational structure improves knowledge generation and sharing capacities (Chahal & Savita, 2014; Rivera & Rivera, 2016).

Performance excellence in higher education institutions

Educational institutions are service organizations with different characteristics of other service organizations, in terms of providing science and knowledge to students and conducting scientific research. It also has a responsibility to provide the community with qualified staff. Therefore, it aims to achieve excellence in its activities through teaching performance, which represents the intellectual capital of a variety of intellectual and intellectual activities and a range of other traditional activities.

Standards for performance excellence of the Organization

There are several internationally renowned models to measure organizations' performance, including the Balanced Scorecard, the Malcolm Baldrige American Model, the European Excellence Model and the Canadian Excellence

Model. Most of these models are based on several criteria (Al-Mazroua, 2010):

- **Leadership Standard:** Examines how leadership conducts their responsibilities to the public.
- **Strategic Planning Standard:** Develop strategic directions and strategic action plans.
- **Standard focus on dealers:** how to determine customer requirements and expectations.
- **Knowledge Management Standard and Metrics Analysis:** Analyze data and information that support the organization's processes by measuring organizational performance, reviewing performance development, and managing knowledge and information technology.
- **Human resources standard:** Organization of the organization of the workforce and the development of its full potential.
- **Standard Operations Management:** manage, design, and improve service delivery and production.
- **Standard Business Results:** Looking at organizational performance and improving performance in key business areas.

The performance of the organization is measured in three axes: efficiency, effectiveness and adaptability, and financial or non-financial measures:

- **Financial Metrics** (Lee & Tseng, 2014):

Financial metrics are directly linked to the organization long-term goals, which measure the success of the organization strategies and adaptability to changes in the external environment, and consist of:

- Rate of return on investment
- Net profit
- Rate of return on assets
- Sales growth rate
- Profit before tax

- **Operational Metrics** (Bolat & Yilmaz, 2009):

Operational metrics provide the hidden picture of performance that financial indicators cannot show. By integrating them with financial indicators, the organization gets a fully integrated picture of its performance. These measures consist of:

- | | |
|---------------------------|----------------------------------------------|
| - Provide new product | - Product or service quality |
| - Market share | - The effectiveness of the marketing process |
| - Customer retention rate | - Social Responsibility |
| - Objectives Completed | - Creativity and innovation |

The impact of knowledge management on excellence in performance in institutions of higher education

The concept of performance excellence and knowledge management in management thought and literature has developed significantly since the early 1980s until the

present. Figure 1 illustrates the importance of knowledge management in the organization (Stankosky, 2011).

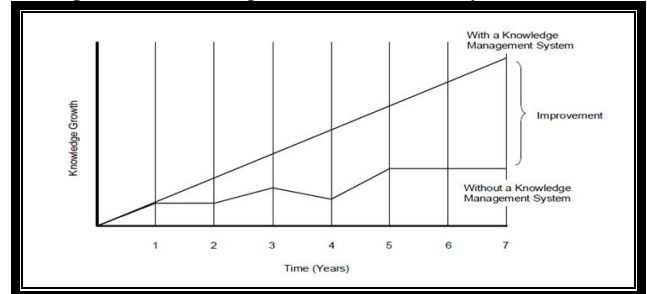


Figure 1: The importance of knowledge management

Source: Stankosky, Michael (2011). *Creating the Discipline of Knowledge Management*, Elsevier, P. 55.

The performance of educational institutions is defined as the performance that helps higher education institutions achieve their strategic objectives, or the excellence and effectiveness of these institutions according to the quality indicators adopted, or the ability of the administrations of these institutions to convert the private inputs to a number of outputs with specific specifications (Al-Hadi, 2013).

The use of knowledge management methods in education provides educational institutions with many benefits, including encouraging and stimulating the emergence of a high level of intelligence on the surface, increasing the effectiveness of these institutions by increasing the level of knowledge on how to manage the educational institutions, raising the level of performance assessment in the educational institution through An effective information management system (Petrides & Nodine, 2003).

Indicators of performance measurement in educational settings can be summarized by the following variables (Al-Anzi et al., 2009):

- **Reduce costs and increase profits:** Educational institutions seek to reduce costs by reducing the cost of services to students and the level of operational and administrative costs, resulting in increased profits.
- **Quality Improvement:** The TQM approach is based on joint efforts through which all individuals can continuously participate in improving the performance of the educational institution.
- **Scientific Research:** Scientific research in educational institutions is an essential element of performance excellence. It helps to promote professional practice and gain the confidence of the industry. It also shows the intellectual contributions of the faculty member.
- **Community service:** It is an essential element in assessing the performance of the educational institution and clarifies the role of the institution in serving civil society and its contribution to solving its problems.

Figure (2) shows areas of overall performance assessment of the institution (Miller, 2007):

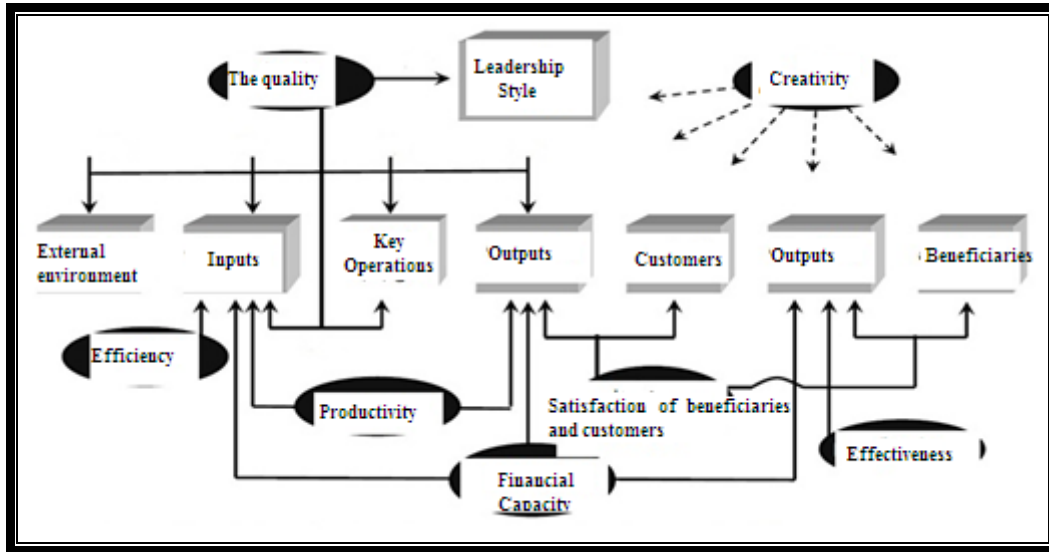


Figure 2: Evaluation of the performance of the educational organization

Source: Miller, Barbara (2007): *Assessing Organizational Performance in Higher Education*, San Francisco: Jossey-Bass.

Measuring knowledge management

Measuring knowledge management (also called knowledge management assessment or knowledge management efficiency) is an assessment of the organization's ability to manage its knowledge in key areas of knowledge such as generation, dissemination, sharing and technology used in knowledge management.

Measuring knowledge management is one of the most challenging and difficult issues faced by contemporary organizations. Serious attempts have been made to measure knowledge management, some of which have received good results and acceptance of prestigious centers in this field.

Since measurement is an indicator to assess the impact of a particular process or activity, the most important thing to measure is whether this measurement shows us the sharing and use of knowledge. Administrations face a major problem when measuring any process. Some standards do not tell us what we want to measure or give us incorrect results.

The main purpose of knowledge is to create a common context, and this is related to the concept of knowledge as a flow, and more importantly in knowledge work is the outcome or results rather than the search for direct measures of knowledge. It is necessary to emphasize the need to distinguish between knowledge as an asset in the organization and knowledge as a process or flow. Knowledge as a stock is something within the ownership of an organization that can be stored, transported and acquired, and knowledge as flow is knowledge that cannot be separated from individuals and is transmitted, traded and shared.

Most researchers follow a measurement method that is limited to using a knowledge management measurement model or knowing the availability of knowledge management requirements, and then linking it to other variables such as performance, excellence, efficiency and profitability. According to previous studies on knowledge management and measurement, variables and dimensions of these studies, these studies did not directly address the

determination of the maturity level of knowledge management in the Organization through maturity models.

The maturity of knowledge management determines the level of organization's capabilities that influence knowledge management processes, where each organization follows a certain level of maturity, and CMM models illustrate the growth steps the organization is expected to develop to manage its knowledge and organizational performance (Khatibian et al. 2010). KMM measures the stages of institutional maturity in the field of knowledge that any organization is expected to go through in order to improve its competitive practices and advantages, especially those that rely primarily on the creation and dissemination of knowledge such as educational institutions and thus improve the overall performance of the institution. Maturity models describe the qualification or nature of things over time, such as the evolution of knowledge management and what are the requirements for moving from one level to another and the extent of stability at a given level.

The importance of measuring knowledge management

Technology itself will not revolutionize knowledge management, and the question is: Does the institution share its knowledge well? How can knowledge centers measure knowledge sharing and knowledge management? The importance of measuring knowledge management is as follows (O'Brien, 2013):

1. Measuring knowledge management helps the organization identify its knowledge gaps.
2. Identify the impact of knowledge gaps on the performance, growth and development of the institution.
3. Helps to manage the knowledge that the organization possesses more efficiently.
4. It provides analytical tools to enhance knowledge and address gaps.
5. Identify strategies and activities needed to fill those knowledge gaps.

The measurement process must be conducted according to certain criteria by which the impact of an application can be

compared to the performance of the organization before and after implementation of the application. This leads us to ask a number of questions such as: What is the development that was developed? When will we move on to the next stage? What should users expect? (Hoss & Schlusel, 2009). The first step in the measurement process should therefore be to establish an appropriate basis for comparison. In terms of knowledge management, the basis for comparison here is the maturity of knowledge management.

The Asian Knowledge Model (APO, 2010)

This model is a modern global model for measuring knowledge management and was designed after a five-month study adopted by the Asian Production Organization for the development of knowledge management techniques and tools. The team is comprised of knowledge management experts from Japan, Singapore, India, China, Malaysia, Thailand, Vietnam and the Philippines.

The model is used in the current research, and we review the components of this model and how it is used to measure knowledge management and knowledge management maturity and its impact on the excellence of the organization's performance. This model consists of a general framework for knowledge management, knowledge management measurement tool and knowledge management maturity measurement tool. Figure 3 shows the general knowledge management framework for the APO model.

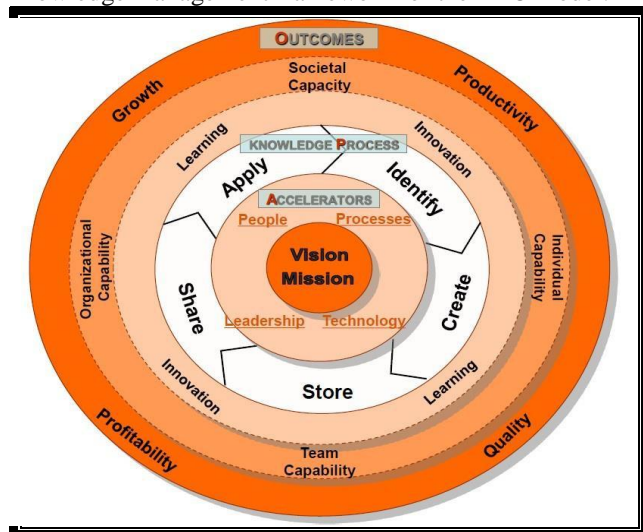


Figure 3: The General Framework for Knowledge Management (APO)

Source: APO (2009), Knowledge Management: facilitators guide, Tokyo, Japan, P. 9.

This framework consists of a continuum of knowledge management components, beginning with the organization's mission and mid-cycle vision, which defines the organization's strategy and capabilities.

We then move on to the second framework, which includes knowledge management processes, factors that accelerate knowledge management processes such as leadership, personnel, processes and technology, and in the final phase the results of knowledge management use of quality, productivity, profitability and growth of the organization

(Qulbo, 2016), (Sensuse & Rohajawati, 2013), (Rivera & Rivera, 2016).

The Knowledge Management Measurement (APO) model consists of (7) axes, each axis consisting of (6) questions that are answered according to the Likert five scale. These axes are:

1. Knowledge Management Leadership: This theme assesses the organization's leadership capabilities in responding to the challenges of the knowledge economy, through the policies and strategies applied in the organization.
 2. The organization operations: This theme assesses how knowledge is used to manage, implement and develop the organization core processes and to what extent the organization has evolved.
 3. Individuals: Evaluation of the Organization's ability to maintain its knowledge resources, evaluation of the organization's learning culture, participation, cooperation and knowledge of staff.
 4. Knowledge Management Technology: Assessing the Organization's capacity to develop an IT infrastructure that provides solutions and tools for sharing knowledge and collaboration and the credibility and reliability of these tools.
 5. Knowledge management processes: Assess the organization's capacity to generate, store, identify and share knowledge with the ability to benefit from best practices and practices to reduce efforts and focus on areas that need to be developed.
 6. Learning and Creativity: Assess the organization's ability to encourage, support and promote learning and creativity through knowledge management processes, as well as assess management efforts in developing and motivating values of learning and creativity and providing incentives to promote knowledge sharing.
 7. Knowledge Management Outcomes: Assess the results of knowledge management by measuring the organization's ability to enhance customer value through improved products and services, quality, increased productivity, profitability and continuous growth.
 8. The Knowledge Management Measurement Tool (APO) is used to identify the aspects that the organization must direct its efforts to develop. The reasons for using the tool can be summarized as follows:
 - Determine whether knowledge management is practiced in the organization and to what extent the practice is carried out.
 - Determine whether the organization has the appropriate conditions to build knowledge management processes and maintain its strength.
 - Identify strengths of the organization and potential opportunities for knowledge management development.
- The results of each area are then divided into a plan called the radar diagram, shown in Figure 4, where the radar diagram shows the values recorded against the maximum value for each field in the questionnaire (APO, 2010)

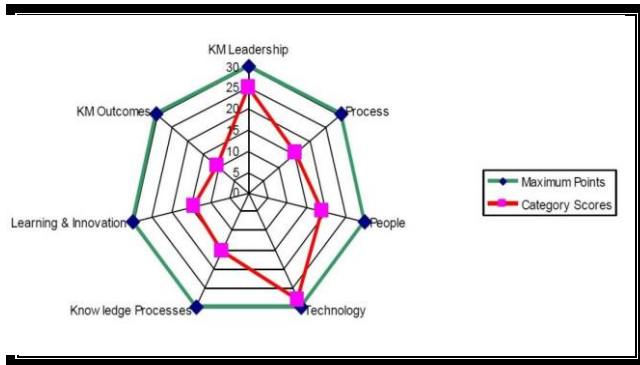


Figure 4: APO radar pattern

Source: APO (2009), Knowledge Management, Tokyo, Japan, P. 144.

The radar scheme identifies areas of strength and areas that need improvement and the organization has an opportunity to improve them.

The next step is to determine the maturity level of knowledge management in the organization by the total sum of the tool and compare it with the CMM model described in Figure 5.

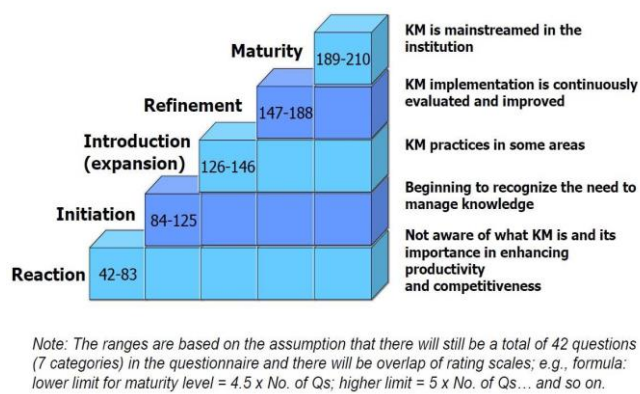


Figure 5: Knowledge Management Maturity Levels (APO)

Source: APO (2010), APO KM Implementation Approach, Tokyo, Japan, P. 52.

Knowledge Management Maturity levels consist of five levels as follows (APO, 2009):

1. Reaction level: the organization is not interested in knowledge management and focuses on enhancing productivity and competitiveness.
2. Beginner Level: The organization begins to recognize the need for knowledge management or has already started a knowledge management pilot project.
3. Level of expansion: the organization fully implements knowledge management.
4. Development Level: The organization continuously evaluates knowledge management for development.
5. Maturity level: Knowledge management exists as a key driver in all the organization operations.

The relationship between measuring knowledge management and the level of performance excellence

The primary purpose of measuring knowledge management is to limit the impact of knowledge management on the

operations of the organization by measuring the change in the organization's output and determining the impact of this change on performance, and if there is an impact, the model becomes a valid indicator of performance.

However, performance cannot be directly linked to the knowledge that has led to it. Knowledge becomes an indirect cost effect whose importance can be recognized but whose specific impact on performance cannot be determined by its spread and its impact on the organization as a whole.

On the other hand, knowledge management alone is not the one that influences the performance, output and sustainability of the organization, but is one of many factors. Performance factors include leadership style, strategic planning, measurement, analysis, knowledge management, customer orientation, workforce focus, human resource management and management processes (Mann, 2011; Zack et al., 2009).

When the organization is at the first or second level, knowledge management processes are local and primary, often focusing on a particular section of the organization and not all parts of the organization, and without a comprehensive strategy to support those efforts. Here, we can say that the impact of knowledge management processes is not very clear on the performance of the organization and may not change the basis on the overall performance given the limited knowledge management processes in a particular section of the organization, and therefore we can say that the first and second levels of knowledge management maturity represent the level of performance Standard in the organization does not reach the level of excellence or improvement in performance as expected from the application of knowledge management in the organization (APQC, 2011).

When the Organization reaches Level III (the level of expansion), it begins to integrate knowledge sharing and collaboration into its core processes. Management assigns resources for knowledge management, and employs staff with standardized technology to capture, transfer, share and reuse knowledge in the Organization.

And organizations that reach level 5, knowledge management has been integrated into their entire operations. Rather than considering knowledge management as a separate part of their work responsibilities, employees recognize the role that knowledge sharing and collaboration play in improving the performance of individuals and the organization. Knowledge management activities support innovation in the organization, improve competitive advantages, and enhance value chain for customers and suppliers.

Although the performance of the fifth level of knowledge management maturity is unique, not all organizations seek to reach this level, and the third level is merely a transitional stage in the application of knowledge management and begins to achieve significant development and improvement in the organization's performance (Hubert & Lemons, 2010; Khatibian et al., 2010). The following illustrates the relationship between model dimensions and performance:

1. **Knowledge Management Leadership and its Impact on Performance Excellence:** The leadership role is central to the success of KM implementation as it is the top management that disseminates the appropriate culture, builds the fertile environment and provides the necessary requirements to discover, share and manage organizational knowledge, where there is a strong commitment in executive management to change organizational culture, the organization can create the values that lead to the sharing of knowledge (Abu Jallakh, 2016). To achieve this requires a leadership style that manages the best and most effective use of the existing knowledge of the Organization to improve performance, and its relevance to the message, vision and objectives of the Organization on the one hand, and the knowledge management strategies of the Organization on the other.
 2. **Processes and their impact on performance excellence:** Processes are integrated knowledge within the organization. The value chain in the organization reflects how value can be added at each stage of production to achieve organizational efficiency and enables the organization to achieve outstanding performance (Badrouni, 2011) and (Khatibian et al., 2010).
 3. **Individuals and their impact on performance excellence:** The motivation of individuals and the way in which the interpretation, transfer and application of knowledge management processes greatly affect the determination of the form and nature of knowledge and how to manage it. Therefore, the individual component is the most influential for the application of knowledge management, because the creation, sharing and use of knowledge is made by individuals. Individuals have the decision to apply knowledge management or not (Qulbo, 2016); Abu Jallakh, 2016; Rivera & Rivera, 2016). Organizations that seek excellence and success are organizations that create and adopt a human cadre that is distinguished, skilled and specialized through training, qualification and continuous development. The development of human resources is achieved by increasing the knowledge, skills and abilities of employees in various fields to improve the efficiency of performance. Intangible resources such as human and organizational resources are more appropriate and important in building and building competitive advantage over tangible resources.
 4. **Technology and its impact on performance excellence:** Modern technology plays an important role in improving the organization's performance by providing timely information and enhancing the role of information to rationalize decisions. Where technology has become very important in how to maximize the organization's ability to create new knowledge and how to create an internal environment that encourages the sharing of learning and knowledge. The integration of information technology with enterprise operations enhances knowledge management processes, improves performance and enhances the competitive advantages of the organization (Khairuddin, 2015) and Pircher & Pausits (2011; Khatibian & et al., 2010).
 5. **Knowledge processes and their impact on performance excellence:** The generation, storage, distribution and application of new and useful knowledge facilitate the work within the organization. The presence of a team that specializes in capturing knowledge, encouraging investment, employee participation and interaction with effective leadership leads these processes to harmonize them. Financial returns of the Organization. This leads to creativity, innovation and high productivity, demonstrating the optimal use of inputs and thus raising performance in different areas that implement knowledge management (Znini and Khamis, 2011).
 6. **Learning and creativity and their impact on the excellence of performance:** Modern organizations are characterized by continuous learning and application of experience gained in their daily lives, and because creativity and development are the most important characteristic of the performance of organizations in the current age are important demands of the public organizations and their administrative bodies to play its new role and which satisfies the satisfaction of all parties stakeholders, and will not achieve public organizations this excellence in performance without adopting modern management concepts. The organizations seek to utilize the learning experience in the ongoing development of performance, thereby achieving a qualitative shift from weakness to excellence, maintaining this excellence continuously, and addressing deficiencies in any performance component, if any, so as to achieve efficiency and effectiveness in performance, improvement and development (Al Hila et al., 2017).
 7. **Knowledge Management Outcomes and their Impact on Performance Excellence:** Knowledge management aims primarily at developing job performance in general in terms of effectiveness and efficiency in reaching the organization to excellence. The impact of knowledge management outputs can be divided into two levels: individual and organizational (Khatibian & et al., 2010; Rivera & Rivera, 2016).
- ## 6. LITERATURE REVIEW
- Study of (Abu Naser et al., 2016) which aims to measure Knowledge Management Maturity (KMM) in the universities to determine the impact of knowledge management on high performance. This study was applied on Al-Quds Open University in Gaza strip, Palestine. Asian productivity organization model was applied to measure KMM. Second dimension which assess high performance was developed by the authors. The controlled sample was (306). Several statistical tools were used for data analysis and hypotheses testing, including reliability Correlation using Cronbach's alpha, "ANOVA", Simple Linear Regression and Step Wise Regression. The overall findings of the current

study suggest that KMM is suitable for measuring high performance. KMM assessment shows that maturity level is in level three. Findings also support the main hypothesis and it is sub- hypotheses. The most important factors effecting high performance are: Processes, KM leadership, People, KM Outcomes and Learning and Innovation. Furthermore the current study is unique by the virtue of its nature, scope and way of implied investigation, as it is the first comparative study in the universities of Palestine explores the status of KMM using the Asian productivity Model.

- Study of (Abu Naser et al., 2016) which aims to measure knowledge management maturity in higher education institutions to determine the impact of knowledge management on high performance. Also the study aims to compare knowledge management maturity between universities and intermediate colleges. This study was applied on five higher education institutions in Gaza strip, Palestine. Asian productivity organization model was applied to measure Knowledge Management Maturity. Second dimension which assess high performance was developed by the authors. The controlled sample was. Several statistical tools were used for data analysis and hypotheses testing, including reliability correlation using Cronbach's alpha, "ANOVA", Simple Linear Regression and Step Wise Regression. The overall findings of the current study shows that maturity level is in the second level. Findings also support the main hypothesis and it is sub-hypotheses. The most important factors effecting high performance are: Processes, knowledge management leadership, People, knowledge management Outcomes. Furthermore the current study is unique by the virtue of its nature, scope and way of implied investigation, as it is the first comparative study between universities and intermediate colleges in Gaza Strip that explores the status of knowledge management maturity using the Asian productivity Model.
- Study of (Abu Naser et al., 2016) which aims to determine knowledge management (KM) factors which have strong impact on high performance. Also, the study aims to compare KMM between intermediate colleges. This study was applied on three intermediate colleges in Gaza strip, Palestine. Asian productivity organization model was applied to measure KMM. Second dimension which assess high performance was developed by the authors. The controlled sample was 190. Several statistical tools were used for data analysis and hypotheses testing, including reliability correlation using Cronbach's alpha, "ANOVA", simple linear regression and step wise regression and LSD test. The overall findings of the current study show that maturity level is in the second level. Findings also support the main hypothesis and its sub- hypotheses. The most important factors effecting high performance are the processes, KM leadership, people and KM outcomes. In addition, there are differences in high performance for college (PTC). Furthermore, the current study is unique

by the virtue of its nature, scope and way of implied investigation, as it is the first comparative study between intermediate colleges in Palestine that explores the status of KMM using the Asian productivity model. Research limitations was that the survey findings were based on intermediate colleges in Gaza Strip.

- Study of (Abu Naser et al., 2016) the paper assesses Knowledge Management Maturity (KMM) in the universities to determine the impact of knowledge management on performance excellence. This study was applied on Al-Azhar University and Al-Quds Open University in Gaza strip, Palestine. This paper depends on Asian productivity organization model that used to assess KMM. Second dimension which assess performance excellence was developed by the authors. The controlled sample was (610). Several statistical tools were used for data analysis and hypotheses testing, including reliability Correlation using Cronbach's alpha, "ANOVA", Simple Linear Regression and Step Wise Regression. The overall findings of the current study suggest that KMM is suitable for measuring performance excellence. KMM assessment shows that both universities maturity level is in level three. Findings also support the main hypothesis and it is sub-hypotheses. The most important factors effecting performance excellence are: Processes, KM leadership, People, KM Outcomes. Furthermore the current study is unique by the virtue of its nature, scope and way of implied investigation, as it is the first comparative study in the universities of Palestine explores the status of KMM using the Asian productivity Model.
- Study of (Abu Naser et al., 2016) which aims to assess knowledge management maturity at HEI to determine the most effecting variables on knowledge management that enhance the total performance of the organization. This study was applied on Al-Azhar University in Gaza strip, Palestine. This paper depends on Asian productivity organization model that used to assess KM maturity. Second dimension assess high performance was developed by the authors. The controlled sample was (364). Several statistical tools were used for data analysis and hypotheses testing, including reliability Correlation using Cronbach's alpha, "ANOVA", Simple Linear Regression and Step Wise Regression. The overall findings of the current study suggest that KMM is suitable for measuring and lead to enhance high performance. KMM assessment shows that the university maturity level is in level three. Findings also support the main hypothesis and it is sub hypotheses. The most important factors effecting high performance are: Processes, KM leadership, People, KM Outcomes, Knowledge Process. Furthermore the current study is unique by the virtue of its nature, scope and way of implied investigation, as it is the first study at HEI in Palestine explores the status of KMM using the Asian productivity model.
- Study of (Abu Jalh, 2016) The aim of this study is to inform the role of knowledge management in improving

the quality of the outputs of the institutions of higher education and applying them to the Sudanese universities in the state of Khartoum, to learn about the reality and concept of knowledge management, and to clarify the basic pillars of knowledge management, processes, technology and knowledge team. The study found that there is a statistically significant correlation between knowledge management and improving the quality of university outputs, and that knowledge management practices play a positive role in improving the quality of the output of Sudanese universities.

- Study of (Rivera & Rivera, 2016), which aims to design, analyze and measure a knowledge management model at a University of Mexico. The proposed model consists of six factors: leadership, culture, organizational structure, human resources, information technology and measurement. The study found that the most important factors affecting knowledge management processes were leadership, culture and organizational structure, while the focus of information technology was the least influential.
- Study of (Rahman et al., 2016). This study aims at developing and integrating the concept of knowledge sharing among non-academic workers in a group of Malaysian universities. The study found that behavior and ethics have a significant impact on the behavior of knowledge sharing and that managers should activate knowledge transfer among staff.
- Study of (Qulbo, 2016) this study aims to highlight the role of knowledge management in the survival and growth of institutions and increase their effectiveness and performance in the face of the great challenges they face. The importance of knowledge management is highlighted by adding value to the institution, creating a competitive advantage and making the institution more flexible. Study on the staff of the Faculty of Economic and Commercial Sciences at the University of Mohammed Khader in Algeria. The study found that individuals have a significant role in the success of knowledge management and the focus of the college on the distribution of knowledge.
- Study (Khairuddin, 2015) the aim of this study is to highlight the relationship between e-management and knowledge management at the Algerian Telecom Corporation in Biskra. The study found that there is a significant role for e-management in knowledge management processes (storage, generation, sharing), and the absence of a moral role for the application of knowledge.
- Study of (Lee & Wong, 2015) aimed at identifying an appropriate tool to measure the performance of knowledge management in small and medium-sized enterprises. The tool consists of knowledge resources (human capital, intellectual capital, intellectual property), knowledge management processes and knowledge factors (organizational structure, organizational culture, human resource management, leadership, strategy, resources). The study found the credibility of the proposed model and its ability to properly measure as a result of integrating three concepts of knowledge management into one model.
- Study of (Lee & Tseng, 2014) study aimed at clarifying how the organization can effectively implement knowledge management capacity and develop unique dynamic capabilities to provide a rapid response to a dynamic environment and its impact on the performance of the organization. The study found that dynamic capacity is an important intermediate regulatory mechanism through which the benefits of knowledge management capacity are transformed into organizational performance impacts. The study also found that knowledge management capacity enhances organizational dynamism, while dynamic capacity increases regulatory performance and provides competitive advantages.
- Study of (Syysnummi & Laihonon, 2014) aimed to identify the views of senior management in the management of knowledge in educational organizations in Finland, and the study was conducted on the Perkmana educational institution. Previous studies on educational management have focused on the central role of knowledge management, and have not provided much support in the development of administrative processes that support teachers in the diverse tasks of knowledge management. The study concluded that knowledge management is closely linked to value creation processes for education organizations and should be considered an essential part of modern educational management. More emphasis is also needed on mastering the knowledge related to the teaching function and the creation of knowledge structures that support this function.
- Study (Abdul Kader et al., 2013) aimed at identifying the relationship between knowledge management and creativity and its impact on job performance and achieving competitive advantage. The study was conducted using the survey based on the previous studies related to these variables. The study found a strong relationship between knowledge management and organizational innovation, leading to a competitive advantage for organizations in the knowledge economy.
- Study of (Ragab & Arisha, 2013) aimed to analyze, classify and review previous knowledge management studies, especially with the growing growth in knowledge management publications, and provide a comprehensive reference to new researchers with special emphasis on knowledge measurement methods. The study concluded that previous research and studies can be classified into five categories: knowledge science, knowledge management systems, the role of information technology, administrative and social issues and measuring knowledge. The study also found that one way of measuring knowledge management is by measuring the performance of the organization as a way to avoid quantitative measurements of complexity and its association with variables that may not

necessarily apply to all organizations. Methods for measuring non-quantitative performance include survey lists, interviews and research surveys.

- Study of (Ramachandran et al., 2013). This study aimed to examine the gap between knowledge management practices and key strategic empowerment factors in state technical universities. The study was conducted on four state technical universities in Malaysia. The study found that academics at Malaysian state technical universities find that knowledge management practices and strategic enabling factors are very important but not widely used.
- A study (Bousha and Ben Mansour, 2012), which aims to identify the role of knowledge management in the effectiveness of organizations and their efficiency in the era of globalization to ensure their survival and continuity. The study relied on the analysis of previous knowledge management studies. Knowledge management is essential for the survival of the organization and maintaining its competitive edge. Knowledge management processes are now a strategic necessity rather than an option. There is a close relationship between knowledge management and the organization's ability to survive, grow and achieve efficiency.
- Study of (Al-Yasiri and others, 2012), which aims to determine the impact of knowledge management processes on strategic performance. To achieve this, the core processes of knowledge management (knowledge generation, knowledge storage, knowledge distribution, application of knowledge) Strategic performance (financial perspective, customer perspective, internal processes perspective, learning, and growth perspective). The research was conducted in the universities of the Middle Euphrates (Karbala, Babel, Kufa, Qadisiyah). The study found that there was an impact of knowledge management processes on strategic performance. The highest impact was the implementation process of knowledge management processes, then distribution, followed by generation and finally knowledge storage.
- The study (Sangjae et al., 2012), which aims to analyze the relationship between knowledge management, sources of knowledge processes, the learning organization and the performance of the organization. The survey was conducted by e-mail through 105 companies in South Korea, operating in various industrial sectors. The number of employees ranges from 500 to more than 5,000. The study found that collaboration, learning culture, support of senior management, and support of information technology affect the sources of knowledge processes. And that the sources of the knowledge process and the learning organization in turn constitute an intermediate relationship between knowledge management and the functioning of the organization.
- Study (Lerro et al., 2012) study aimed at linking the knowledge management strategies of the organization and the methods of measuring them in order to

determine the objective of the organization from the knowledge management evaluation process whether to determine the efficiency of performance or value of intangible assets or competitive advantages by analyzing and reviewing previous studies. The study found that setting the measurement objective helps in selecting the appropriate strategy for assessing and monitoring the knowledge resources of the organization and identifying the knowledge levels of the organization, and also helps in the arrangement and selection of critical information to help in decision making. However, the models of knowledge assessment used still do not have a clear strategic dimension.

- Study (Chen et al., 2012) aim was to examine the relevance of knowledge management with the strategies of knowledge management, human resources and information technology and its relation to the performance of the organization. The study was conducted in Taiwan on 161 companies with high ratings. The study found that a correlation between these variables positively affects the performance of the organization, as well as the relationships between the variables themselves affect the performance of the organization.
- The study (Badrouni, 2011) aimed at identifying how knowledge management contributes to ensuring the building and survival of business organizations, and the role of knowledge management in raising institutional performance. The study was based on an analysis of previous knowledge management studies and studies on the relationship between knowledge management and performance efficiency. The study found that knowledge is one of the most important features of the 21st century economy, and there is a global trend for the production of knowledge-based goods and services. The study recommended the need to move towards a knowledge economy to enable competitiveness and continuity through raising the efficiency of the performance of the organizations.
- Study (Znini and Khamis, 2011) objective is to identify the impact of knowledge management on raising the efficiency of performance in the National Telecommunications Company in Algeria, and the extent to which management leadership understands the concept and importance of knowledge management. The study found a strong statistical correlation between knowledge management and organizational performance.
- Study of (Mills & Smith, 2011) aimed at assessing the impact of knowledge management processes on the performance of the organization. The study was conducted on a group of directors of companies in Jamaica, with a sample size of (500) managers. The study found that some sources of knowledge such as the organization's culture and knowledge applications are directly related to the organization's performance, while technology and knowledge transfer are not directly related to the organization's performance.

- Study (Laal, 2011) aims at clarifying the basic concepts of knowledge management in higher education institutions and providing a summary of previous studies in this field in order to enhance the efficiency and efficiency of understanding knowledge management within the constantly changing environment. The study found that universities have great opportunities to add knowledge management in all their operations from education to community service and research, to achieve greater efficiency and effectiveness in their operations by enhancing knowledge management processes, and to achieve better decisions that improve academic and administrative services and reduce costs.
- Study of (Soliman, 2010) aim to investigate the relationship between knowledge management and organizational performance in the pharmaceutical companies operating in the Egyptian market, which reached (59) companies. The study found that there is a strong correlation between knowledge management and organizational performance. There is a significant correlation between organizational performance and between building a new organizational culture, providing the appropriate organizational structure, providing technical and administrative support, and providing a system of rewards, incentives and a clear vision for the future.
- Study of (Ouda, 2010). The aim of the study was to uncover the reality of knowledge management in Palestinian universities and ways to strengthen it, define the knowledge management processes to be practiced by Palestinian university employees; the study found that the universities apply knowledge management in terms of application, generation, organization and participation.
- Study of (Cranfield & Taylor 2008) aimed to identify the reality of knowledge management and its application in British higher education institutions. The study was applied to seven British universities and used direct interviews with academics. The study found that there is a high level of knowledge management activities. There are two universities with a vice president for knowledge management. The nature of academics and academic concepts has a direct impact on the organization's culture towards knowledge management and the organizational structure of these universities greatly affects the ability of these universities in Responding to environmental changes.

7. METHODOLOGICAL FRAMEWORK FOR RESEARCH

Data sources

Secondary sources: The researchers aimed at addressing the theoretical framework of the research to the secondary data sources, which are related Arabic and foreign books and references, periodicals, articles, reports, research and previous studies that dealt with the subject of study and research and reading in various Internet sites.

Primary Sources: To address the analytical aspects of the research topic, the researchers sought to collect the initial data through the questionnaire as a main tool for the study, designed specifically for this purpose, and distributed to employees at Al-Azhar University in Gaza.

Research community

The research community consists of 456 employees of the academic and administrative staff at Al-Azhar University in Gaza, as shown in Table (2).

Table 2: Number of Employees at Al - Azhar University

	Ph. D.	M. A.	B A	Diplo ma	Hig h Scho ol	Sub second ary	Total summation
Academic Body							
Males	178	32	7	-	-	-	217
Females	12	8	3	-	-	-	23
Administrative Board							
Males	-	2	85	59	24	28	198
Females	-	-	13	3	2	-	18
Total number of employees = 456							

Source: Department of Personnel Affairs, Al-Azhar University, 2017.

Sample: The questionnaire was distributed to a control sample (80%) with total of (364) questionnaires. The sample consisted of administrative workers and academics. A total of (289) questionnaires representing (63%) of the research community were retrieved, which is statistically sufficient.

Research Tools: The researchers prepared the research questionnaire after reviewing the previous studies of the APO model and directing it to the research category after adjusting it to suit the research community. The questionnaire covered all aspects of the subject in question.

Methods of data collection

Methods of statistical analysis: After the completion of the data collection was used by the computer based on the program (SPSS) to unload data and schedule and conduct statistical analysis suitable for data analysis and to test the validity of research hypotheses, and this requires the application of some methods of descriptive statistics and analytical statistics as follows:

First: Descriptive Statistics: The descriptive statistics, the arithmetic mean and the standard deviation were used to describe the variables of the research through the data collected. It was also based on the Cronbach's Alpha coefficient, which is used to measure the reliability and consistency of the questions in the survey, The importance of these questions in the analysis was that all the values of the coefficients of honesty and persistence were greater than 0.5, which means that the dimensions of the questionnaire as a whole can be relied upon in the analysis.

Second: Theoretical Statistics: The research data were analyzed using analytical statistical methods to identify hypotheses and these methods as follows:

Simple Linear Regression: A method used to determine the relationship and the magnitude of the effect of a single

variable called an independent variable on a single variable called the dependent variable, using the OLS (Ordinary Least Squares) method.

Statistical hypotheses tests:

H01: There is no statistically significant effect on the use of the Asian knowledge model “APO” as a benchmark for university performance.

In order for the researchers to test the model, the first main hypothesis was divided into seven sub-hypotheses, each of which was tested individually according to the components of the KM model on which the study was based.

H01-1: There is no statistically significant effect of knowledge management leadership on performance excellence.

H01-2: There is no statistically significant effect of the University's operations on performance excellence.

H01-3: There is no statistically significant effect of personnel on performance excellence.

H01-4: There is no statistically significant effect of technology on performance excellence.

H01-5: There is no statistically significant effect of knowledge processes on performance excellence.

H01-6: There is no statistically significant effect of learning and creativity on performance excellence.

H01-7: There is no statistically significant effect of knowledge management outputs on performance excellence. Where simple linear regression was used to test the effect of one independent variable on a single dependent variable, and the results are shown in Table 3:

Table 3: Test of regression coefficients, correlation results and ANOVA analysis of sub-assumptions

Independent variable (subtotals)	Level of significance	The resolution at $\alpha = 0.05$	Regression coefficient	Pearson correlation coefficient r	Signal	Coefficient of selection r2	The unexplained ratio
Knowledge leadership	0.0	moral	0.238	0.462	+	20.6%	79.4%
University Operations	0.0	moral	0.262	0.473	+	21.8%	78.2%
Individuals	0.0	moral	0.198	0.346	+	12.2%	87.8%
Technology	0.001	moral	0.194	0.204	+	5.3%	94.7%
Knowledge Operations	0.017	moral	0.132	0.161	+	4.9%	95.1%
Learning and creativity	0.0	moral	0.197	0.247	+	7.4%	92.6%
Knowledge Management Outcomes	0.0	moral	0.263	0.325	+	11.4%	88.6%

Source: Results of statistical analysis of field study data

From previous results we find that:

1. The value of the significance level in the regression coefficient test table was less than the value of the significance level ($\alpha = 0.05$), which means that there is a statistically significant effect of the independent variables on the performance differentiation.
2. The Pearson correlation coefficient, as well as the regression coefficient of the independent variables test model, was a positive sign, meaning that the greater the value of the independent variable, the greater the performance.
3. The changes in the independent variable are responsible for interpreting only (r2) of the changes in performance differentiation. There is a ratio of (100 - r2) due to other factors of the other independent variables and other factors not mentioned in the model, (Random Error).
4. The value of the significance level was less than the value of the moral level ($\alpha = 0.05$), which means the possibility of relying on the previous model and the possibility of generalizing the results of the sample to the research community as a whole.

From the above, the seven sub-assumptions can be rejected and the alternative sub-assumptions are accepted which states:

Sub-Hypothesis The first alternative: "There is a significant statistical significance to the leadership of knowledge management on performance excellence."

Sub-Hypothesis The second alternative: "There is a statistically significant effect of university operations on performance excellence".

Sub-Hypothesis The third alternative: "There is a significant statistical significance for individuals on performance excellence".

Sub-hypothesis 4: "There is a statistically significant effect of technology on performance excellence".

Sub-hypothesis Variant V: "There is a statistically significant effect of knowledge processes on performance differentiation".

Sub-hypothesis 6: "There is a statistically significant effect of learning and creativity on performance excellence."

Sub-hypothesis 7: "There is a statistically significant effect of knowledge management outputs on performance excellence".

Result of the overall main assumption:

The analysis results showed that there is a relationship between the dimensions of the independent variable and the dependent variable, and therefore the effect of each dimension in the independent variable on the dependent variable.

This effect is done individually for each dimension in the independent variable, and other factors not mentioned in the model affect the performance distinction, plus the random error limit of the same dimension, as shown in the following table (4).

Table 4: The effect of independent variable dimensions on the dependent variable

No.	Variable name	Effect value%
1.	Knowledge leadership	20.6
2.	University Operations	21.8
3.	Individuals	12.2
4.	Technology	5.3
5.	Knowledge Operations	4.9
6.	Learning and creativity	7.4
7.	Knowledge Management Outcomes	11.4

Source: Results of statistical analysis of field study data
From the above, the main assumption can be rejected in its nihilistic form and acceptance of the alternative assumption that "there is a significant statistical significance effect of the KM model on performance excellence".

8. CONCLUSIONS

First: Radar Outcomes

The following table shows the results of the radar scheme by calculating the response rates for each sub-paragraph.

Table 5: Results of the radar scheme

No.	Sub-domain I	(30-5)
1.	Knowledge leadership	24.62
2.	University Operations	26.71
3.	Individuals	18.82
4.	Technology	15.94
5.	Knowledge Operations	12.68
6.	Learning and creativity	16.39
7.	Knowledge Management	17.98
Total summation (210-42)		133.14

Source: Results of statistical analysis of field study data
Second: Assessment of knowledge management maturity
The above table shows that the total rate of the total was 133.14, which means that the level of knowledge maturity of these universities is at the third level, the level of expansion. We conclude from this that there is a need to review and manage knowledge processes in these universities because they do not reach the full level of knowledge management (expansion), even though they are educational organizations that produce and disseminate knowledge.

Third: Strengths and development opportunities

The following table (6) illustrates the strengths and development opportunities that the university can take advantage of to improve its knowledge management maturity:

Table 6: Strengths and Development Opportunities

No.	Category	Strengths	Development opportunities
1.	Knowledge leadership	-Provides a supportive strategy for knowledge management -Knowledge sharing activities -The process of communication -Vision of the Organization	-Organization support for individuals Realistic policies -Developing leadership training curricula
2.	University Operations	-Technology is a key factor in operations -Effective work system -Assessment is an ongoing process -Designing business systems for consumer satisfaction	-Disclosure of information -Adherence to the results of evaluations -Use new technologies to enhance performance
3.	Individuals	-Evaluation to improve performance and services -Training -Promoting learning	-Transition from knowledge transfer to knowledge sharing -Developing training courses that achieve effective training
4.	Technology	-Consider risk as an opportunity to learn -There is an appropriate infrastructure	-Change for the best, learning by doing -Develop and facilitate the process of staff entry to information
5.	Knowledge Operations	-Better practice and learning -Measurement of activities compared to other organizations	-Increase learning opportunities -Diversity of learning media -Develop a strategy to solve problems

No.	Category	Strengths	Development opportunities
		-Training	
6.	Learning and creativity	-Every employee has access to a computer -Promoting learning values -New training methods -Promoting the values of the organization and creative learning	-Smooth access to the computer increases knowledge -Fair policy of punishment and reward -Creativity in order to support the performance of the organization
7.	Knowledge Management Outcomes	-Achieve high productivity with efficient and efficient resources -Improving the quality of services	-Save time and costs -Development of human resources

Source: Prepared by researchers

Fourth: Re-evaluation of knowledge management

After applying the list of strengths and prior development opportunities, within a given time range, a measure of knowledge management is made again to determine the viability of the development process and its impact on the performance of the university.

Fifth: Results related to the field study

- The existence of a sharing of knowledge linked to the vision, mission and goals of the university, provide the necessary financial resources and stimulate learning and creativity, and this result is consistent with the study of each (Ouda, 2010); (Hanouna and Al-Awadhi, 2011), the study of both (Cranfield & Taylor, 2008; Laal, 2011; Syasnummi & Laihonon, 2014; Ramachandran et al., 2013; Rivera & Rivera, 2016).
 - The universities identify their competitive advantages and work to ensure customer satisfaction by developing their services and products (Al-Yasiri and others, 2012); (Abdul Kader et al., 2013); (Abu Jallakh, 2016) (Lee & Tseng, 2014); (Ramachandran et al., 2013).
 - To pay attention to training and learning, to develop individuals' abilities and to stimulate participation and cooperation. This result is consistent with the study of both (Soliman, 2010), (Khairuddin, 2015) and Syysnummi & Laihonon, 2014; Chen et al., 2012; Rahman et al., 2016).
1. The existence of IT infrastructure as a fundamental requirement for the efficiency of knowledge management processes, and this result is consistent with all previous studies.
 2. Lack of connectivity in technology, network access for all employees, failure to link IT infrastructure with the organization's knowledge management strategy, this finding is different with all previous studies that focused on the importance of these aspects in the efficiency and effectiveness of knowledge management.
 3. The need to intensify knowledge management processes and to maintain knowledge stocks. This result is consistent with the study of (Syasnummi & Laihonon, 2014) and (Ramachandran et al., 2013).

4. Knowledge management processes are clearly available at the university.
5. Lack of a scale to assess the impact of knowledge contributions on profitability, decision making, and production efficiency, quality of services, growth and value creation of services provided.
6. The University's interest in modern education means that it is the center of its operations, attracting the best academic expertise, encouraging the professional development of the staff, scientific research and creativity. This result is consistent with the study of (Soliman, 2010), (Hanouna and Al-Awadhi, 2011; Znini and Khamis, 2011); (Qulbo, 2016) and (Laal, 2011; Sangjae et al., 2012).
7. The University is keen to provide all available educational means to achieve competitive advantage, develop its curriculum and seek to attract as many customers as possible, and this result is consistent with the study of each of (Hanouna and Al-Awadhi, 2011); (Abdul Kader et al., 2013) and (Ramachandran et al. 2013).
8. Technology plays an important role in the development of human resources, and this result is consistent with the study of (Al-Yasiri and others, 2012), (Bousha and Ben Mansour, 2012); (Khairuddin, 2015; Sangjae et al., 2012; et al., 2012; Ragab & Arisha, 2013).
9. The lack of appropriate strategies for crisis management, and the face of rapid changes in the environment. This result is different with Hanouna and Al-Awadhi, 2011 (Lee & Tseng, 2014; Cranfield & Taylor, 2008).
10. The lack of participation of individuals in the decision-making process, the lack of use of technology in the process of communication or participation effectively, the lack of adoption of the working group approach to problem solving, and this result is different with the study of (Ouda, 2010), (Soliman, 2010), (Cranfield & Taylor, 2008; Laal, 2012; Sangjae et al., 2012; Syysnummi & Laihonon, 2014; Mills & Smith, 2011)

9. RECOMMENDATIONS

1. Expand the use of the APO model in educational institutions and develop it in accordance with the local and organizational environment, where the validity of this model has been proven to measure.
2. To promote a culture of participation, cooperation and dissemination of knowledge among university staff and to develop a clear policy for the protection of knowledge.
3. Strengthen the role of knowledge-supporting leadership in the organization and identify knowledge-oriented leaders with the impact of creating an environment conducive to knowledge management processes.
4. Take advantage of knowledge management in key operations in universities in order to achieve competitive advantage and maintain customer confidence and satisfaction.
5. Enhance the development of human resources because of their significant role in developing their skills and knowledge.
6. Creation of knowledge databases and databases of staff capacity to maintain existing knowledge.
7. Encourage the formation of teams in universities to solve problems and spread the culture of participation and cooperation and exchange of knowledge among employees.
8. The development of IT infrastructure in line with modern developments as a key factor for knowledge management processes on the one hand, and the basis for any modern organization to develop its performance.
9. Reliance on modern technology in communication within the university in all directions because of its significant impact in improving performance.
10. Holding seminars and workshops to clarify the processes of knowledge and how to apply them within the university and benefit from the existing knowledge of universities and individuals.
11. Conduct a measurement of knowledge management periodically and compare results with similar universities locally and internationally for the purpose of optimizing them and improving university performance.
12. Create an incentive system to encourage creativity, innovation and knowledge sharing, and encourage the formation of task forces to promote the principle of participation, knowledge sharing and problem solving.
13. Change organizational structures and transformation from vertical to flat structure to achieve university flexibility and centralization.
14. Delegate more powers to employees and create an atmosphere of trust among them by empowering employees and their participation in decision making and flexibility in reward and punishment systems.
15. Enhancing communication between university staff and students and civil society institutions to clarify the philosophy and dimensions of performance excellence and means of achieving it.
16. Encourage and motivate employees to participate in conferences and seminars and disseminate research, and push them towards excellence by providing material and moral incentives that increase their creativity.
17. Providing the library with modern references, providing electronic services and research sites that benefit students, academics and researchers.
18. Review the processes with average and low relative performance, which reflects the weakness in the output quality of the educational process to increase its effectiveness.
19. Building a supportive organizational culture of knowledge by creating the appropriate organizational environment in which the values and principles of participation and cooperation that enhance the capabilities and competence of the staff are established.
20. Attracting creative competencies with knowledge capabilities to enhance competitive advantages and develop their knowledge and skills stock.
21. To provide the necessary funds and expenditures for the development of the university and its operations, and to cooperate with civil society institutions and encourage them to participate in supporting the expenditure on scientific research and scientific conferences.
22. Develop flexible strategies that are able to adapt quickly to environmental changes and take advantage of the University's strengths in confronting these changes.
23. Follow up the university graduates' outputs, research and community services and apply performance measures to identify their effectiveness in the labor market and compare them with international standards.

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