الهيئة الاتحادية للموارد البشرية الحكومية
Federal Authority For Government Human Resources

United Arab Emirates

Guide of Knowledge Management in the Federal Government

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« We must acquire and seek modern science and vast knowledge with high spirit and sincere desire regarding all work fields, so that the United Arab Emirates can, during the third millennium, achieve a broad cultural shift. »

HH Sheikh Khalifa bin Zayed Al Nahyan
President of the United Arab Emirates « May Allah protect him »

« Knowledge is the shortest way to win. »

HH / Sheikh Mohammed bin Rashid Al Maktoum
Vice President, Prime Minister and Ruler of Dubai, « May Allah protect him »

« Our dependence on science and knowledge to achieve comprehensive development is the only way to enable our state to reach the qualitative production stage, in which the oil is not our main source of income, as proven by the experience of countries that have few natural resources »

HH / Sheikh Mohammed bin Zayed Al Nahyan
Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, « May Allah protect him »

Guide Contents

About the Guide

The "Guide of Knowledge Management in the Federal Government" intends to help the entities get acquainted with the concept of knowledge management and its applications.

The Guide addresses the knowledge types, the stages of its development, as well as internal and external sources. The Guide also highlights the several benefits gained by the entities that adopt the concept of knowledge management, and supports them through providing an adequate explanation about the assessment of the maturity level of its knowledge, as well as knowledge management strategy components. In order that entities can effectively apply the concept, the Guide points out the relevant roles and responsibilities, along with presenting a number of challenges that may be encountered by the entities while proposing appropriate solutions to them. This Guide has put forward a number of tools and methods that would contribute to the production, acquisition, storage, publication, measurements and assessment of of knowledge.

It has introduced a number of practical cases based upon best practices, so as to contribute to the clarification of ideas put forward. It also indicated the references on which the development of this Guide was based, in order to facilitate the process of referring to and reviewing them in case of need for additional details by the reader.

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Terms

Knowledge Management	:	The systematic management of knowledge assets at the entity, in order to create added value and meet the strategic needs; it includes all initiatives, processes and systems that contribute to knowledge production, acquisition, classification, storage, dissemination and use / re-use.
Data	:	Facts, measurements or reviews that can be obtained by observation or by search and registration; they are usually in the form of numbers, words, symbols or shapes / images related to a particular subject.
Knowledge	:	Is the result of blending the information with personal experience and perceptions.
Explicit Knowledge	:	Knowledge that can be identified and expressed in words, numbers, or symbols, and can be stored electronically or in writing, in addition to the ability to publish and refer to it easily.
Tacit Knowledge	:	Knowledge that is existing in the minds of people and is difficult to be transferred from one person to another through writing or verbal expression.
Embedded Knowledge	:	Knowledge inherent in the systems and routines "Routines" at the entity. It is shaped by the relationships between information technology and the functional roles, official procedures and routines within the institutional system.
Information	:	Data processed through its classification, organization and analysis, so as to be used for specific purposes in accordance with the context in which it appears.

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1. Introduction

1.1 Knowledge and Reading in the United Arab Emirates

United Arab Emirates has been and still leads the way in promoting knowledge and reading, due to its belief in the importance of these elements in making the positive change that supports the society progress and development.

The state has realized that economic growth at the current era will only be achieved with the adoption of the concept of the knowledge economy, which contributes to providing innovative and distinct products and services; that's why UAE allocated a special place to this concept in "**UAE Vision 2021**" entitled, "United in knowledge". In addition, UAE assigned certain indicators ensuring the commitment to its application such as, for example, achieving high ranking and places in Global Innovation Index (GII) and increasing the percentage of "knowledge field employees" out of the total number of the employees in the state.

As for the reading, it has received considerable attention in the United Arab Emirates, since public libraries have been widely established, where they include original books, in addition to the latest versions and translations since the thirties of the twentieth century. The wise Leadership of the state has been also keen on promoting self-learning and desire for acquiring various knowledge of sciences; therefore, His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the State, "May Allah protect him, has launched the initiative of "**2016... Is Reading Year",** so to deepen and enhance the culture of science, knowledge and reading. To ensure the application of the national strategy of reading and reap its positive results, "Reading Indicator" has been developed and created, which measures the Arab situation on the reading map and levels of cultural development in the region, along with monitoring the status of reading and the nature of its practices in the various segments of Arab society. In addition, His Highness Sheikh Khalifa bin Zayed Al

Nahyan approved "National Law of Reading", which is the first of its kind, in terms of developing legislative frameworks, operational programs and specific government responsibilities to consolidate reading in the United Arab Emirates in a sustainable manner. Ministry of Culture and Knowledge Development has launched "**Reading Award... Culture and Creativity**", which targets all age groups of citizens and residents in the state.

Entities working in the state in various sectors contribute to the promotion of the knowledge and reading attitude. For example, the federal entities could be eligible for **Mohammed bin Rashid Government Excellence Award**, among the best entities in the field of innovation, enabling the entities to achieve sustainability. The system is based on the continuing development of capabilities based on learning from the performance results, using innovative methods for knowledge management. Moreover, the entities will be allowed to be nominated for the best practices category related to knowledge management within categories of **Emirates Award for Human Resources in the Federal Government,** through which the distinct entities will be honored in this field

1.2 Concepts of "Data", "Information" and "Knowledge"

Some people use the terms of "data", "information" and "knowledge" to refer to the same meaning, but they are deemed different concepts in spite of their interdependence, as shown below:

- "Data" represents facts, measurements or reviews that can be obtained by observation or by search and registration; they are usually in the form of numbers, words, symbols or shapes / images related to a particular subject. Examples include employees' data (names, ages, job titles, etc.).

- "Information" represents data processed through its classification, organization and analysis, so as to be used for specific purposes in accordance with the context in which it appears. In most cases, the information provides answers to questions that begin with the following question words: "Who?", "Why?", "Where?" and "When?" For example, "when was the Federal Authority for Government Human Resources established in the United Arab Emirates?"

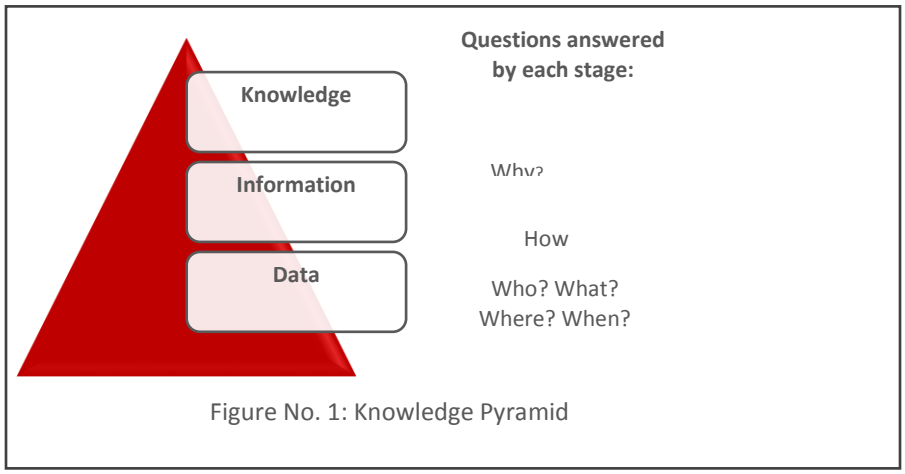

Figure No. 1: Knowledge Pyramid

- "Knowledge" is the result of blending the information with personal experience and perceptions; through which we can answer a question starting with "How". For example, how do I benefit from certain information to take a proper decision? Or how can I accomplish a specific project?

Knowledge supports the decision-making process based on clear criteria or values related to the future.

For further clarification, the following table shows the the differences between the "Data Counting and Storage", "Information Management" and "Knowledge Management":

Data Counting and Storage	Information Management	Knowledge Management
Depends on the quality of available systems and processes; Subject to human error; Cannot add value if it is available alone.	Supports existing processes; Can be extracted from electronic systems; Can be copied or moved.	Supports the improvement and innovation; Is developed through human interaction.
Reflects a specific period (for example, from 1 March till the end of the fiscal year).	Moves the available content only (without audit and analysis).	The information is audited, selected and interpreted through what is determined by the teams at the entity.
Are numbers, statistics or rigid documents that need to be translated into information by an expert.	Information is taken from the source and do not require feedback from other parties.	Knowledge requires contributions and feedback on an ongoing basis.
The data expires immediately after being counted and will be considered as a past event; The data is usually counted automatically.	It is based on the assumption that it is possible to put the information in a template, and it can also be automated.	There are multiple forms of knowledge (tacit and explicit); therefore, its counting needs much time and effort.

1.3 Concept of Knowledge Management

The rapid change in the business climate, technological development, fierce competition and the institutions' need for reducing costs and the number of workers caused the loss of knowledge, as well as the short and little time available to produce and acquire new knowledge. All of the above led to paying intention and giving due care to the concept of knowledge management and its applications by specialists concerned with "science of management", who considered "knowledge management" is the final stage of hypotheses related to information systems. They also predicted that the entity's performance will be linked directly to "Knowledge

Workers", who contribute to bringing added value through the available information processing for the production of new knowledge that could assist in the development of work and provide innovative products and services.

To understand the "knowledge management" clearly, many definitions have been formulated, but the most comprehensive of which is the definition put forward by (Jay Liebowitz): "The systematic management of knowledge assets at the entity, in order to create added value and meet the strategic needs; it includes all initiatives, processes and systems that contribute to knowledge production, acquisition, classification, storage, dissemination and use / re-use."

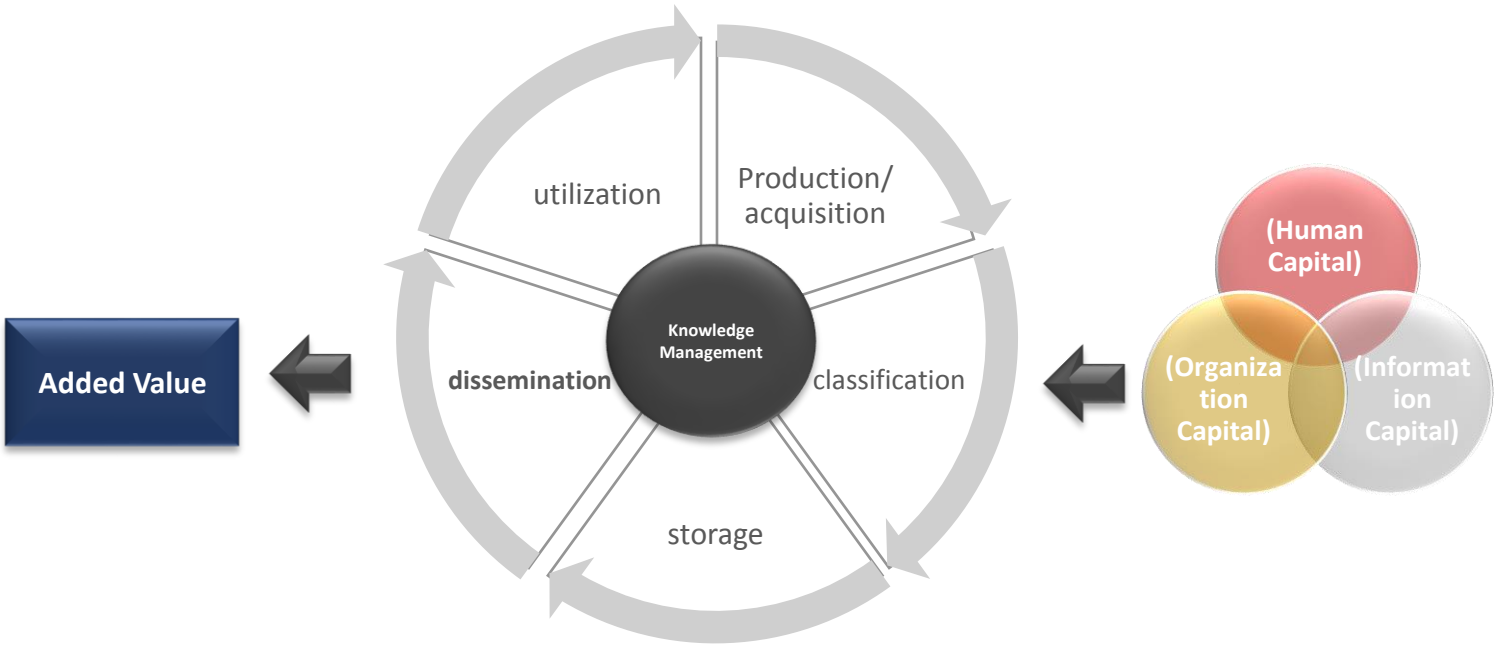

Figure No. 2: Knowledge management's contribution to creating added value

The added value is produced at the entity by taking advantage of knowledge related to the following elements:

1. Human Capital: Includes staff skills, talents and knowledge;
2. Information Capital: Includes databases, information systems and infrastructure for information technology;
3. Organization Capital: Includes corporate culture, leadership, teamwork and commitment to achieve strategic objectives.

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2. Knowledge Types

Management experts have pointed out that the concept of knowledge is based on three (3) hypotheses; 1) the real discovery of knowledge cannot be reached or determined by a set of rules; 2) knowledge is general and personal at the same time; and 3) the roots of explicit knowledge are always existing in tacit knowledge. This knowledge has been classified into tacit, embedded and explicit statutory as follows:

2.1 "Tacit Knowledge"

"Tacit Knowledge" is of great value and importance, since it is the knowledge existing in the minds of people and is difficult to be transferred from one person to another through writing or verbal expression. Tacit Knowledge includes innate skills, ideas, experience, as well as cultural beliefs, behaviors and intellectual models.*.

Tacit Knowledge is created through practice, experiment, simulation and observation, and can move effectively through personal communication and regular interaction and confidence. Examples include "Emotional Intelligence" (that can enable a person to read and understand the emotions to influence the outputs of a subject); explain statistics; and diagnose and repair a technical malfunction related to information technology and the art of doing effective job interviews.

** The concept of "intellectual model" was defined in an article published in Susan Kare magazine for knowledge science and science education in 1986 as "how a person understands the world around him/her" (for example, how to do something). Intellectual models are based on incomplete facts, past experiences and intuitive perceptions. They create a specific form for human behavior and affect his/her decisions on how to solve and understand problems.*

2.2 "Embedded Knowledge"

Embedded Knowledge refers to the knowledge inherent in the systems and routines "Routines" at the entity. It is shaped by the relationships between information technology and the functional roles, official procedures and routines within the institutional system. It should be noted that the Embedded Knowledge exists in the regulations, procedures, guides, corporate culture and documents related to ethical practices (such as "Code of Ethics and Professional Conduct Document") and others.

2.3 "Explicit Knowledge"

Explicit Knowledge can be identified and expressed in words, numbers, or symbols, and can be stored electronically or in writing, in addition to the ability to publish and refer to it easily. Examples include databases and video tapes. To take full advantage of Explicit Knowledge, the entities shall ensure that their employees can easily access it, along with reviewing and updating it on an ongoing basis and in a timely manner.

Practical Case - Federal Authority for Government Human Resources (FAHR)

The website of the Federal Authority for Government Human Resources (http://www.fahr.gov.ae) is characterized by presenting many sources of Explicit Knowledge, such as "Bayanati" system, which assists in managing human resources and providing general and accurate statistics on human resources. This system is one of the best practices that have been used to serve and develop human resources departments at the ministries and federal entities, along with improve their performance, since it facilitates administrative procedures and financial transactions. In addition, it assists in the automation of human resources, wage and salary procedures at such entities since the employee is appointed till his/her retirement.

It also introduces a large number of references that fall under the Explicit Knowledge, such as the "Executive Regulation for the Law of Human Resources in the Federal Government", "Occupational Health and Safety Guide in the Federal Government", and others.

(For further details, please refer to the website of Federal Authority for Government Human Resources (FAHR): http://www.fahr.gov.ae) .

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3. Knowledge Development Cycle

Knowledge Development Cycle is based on social interaction between staff and "Stakeholders", so that it can have a positive effect through the new knowledge that can be shared and transferred continuously, which supports the decision-making process. The Cycle consists of the following stages:

1. **Knowledge production stage:** Is the process by which tacit knowledge is created through the exchange of experience, ideas and skills among employees.
2. **Knowledge conversion stage:** During which tacit knowledge is converted into explicit knowledge through collective communication, dialogue and thinking.
3. **Different knowledge integration stage:** During which new knowledge is produced by blending both types of knowledge; explicit and tacit. It is possible to produce new tacit knowledge through explicit knowledge of the personal nature of the individual when he/she gives it special understanding (for example: instructions, guides and stories that are transferred verbally).

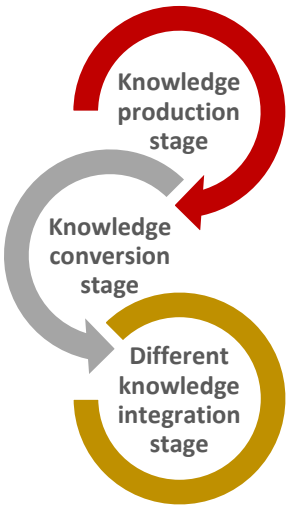

Figure No. 3: Knowledge Development Cycle

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4. Knowledge Sources

Sources of knowledge are divided into internal and external, as indicated below.

4.1 Internal Sources

Internal sources of knowledge is created at the entity through the lessons learnt, the consequences of experiences and decisions taken through the practice of its operations and projects, as well as depending on the intellectual capacity and different experience for its employees.

Internal sources of knowledge include, but not limited to, the following:

1. Guides
2. Internal procedures and processes
3. Research and Development (R & D) activities
4. Internal patents
5. Internal meetings
6. Database
7. Reports and correspondence / letters
8. Internal newsletters
9. Brainstorming sessions
10. Internal electronic portal for the employees (Intranet)

It should be noted that the most important benefits of having internal sources of knowledge is the ability to have access to them easily and quickly, as well as their availability with low cost or free of charge, allowing better opportunities for the entity in terms of the development of services and products within an appropriate time frame.

4.2 External Sources

The entities may resort to external sources of knowledge in order to bridge the knowledge gap, so that a specific problem can be addressed and solved, along with achieving the strategic objectives of the entity. Such sources of knowledge are numerous and they include, but not limited to, the following:

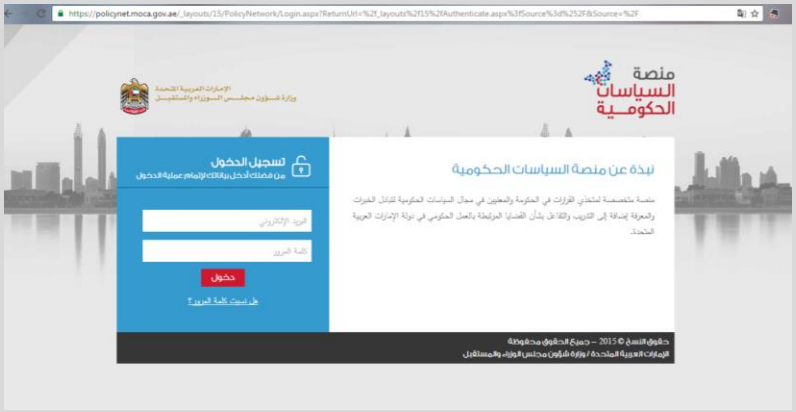
1. Clients
2. Suppliers
3. Libraries
4. Internet
5. Research centers
6. Educational institutions (such as universities, colleges, institutes, etc.)
7. Employees' knowledge network
8. Strategic partnerships with public and private sector institutions
9. Government policies platform (Initiative of Ministry of Cabinet Affairs and Future)

The ability to have access to external sources of knowledge at the right time assists in obtaining a competitive advantage and reduces the institutional risks. Some entities participate in the knowledge-sharing programs, which contribute to the development of performance and raise the efficiency of their employees.

Practical Case - Government Policies Platform (Initiative of Ministry of Cabinet Affairs and Future)*:

His Highness Sheikh Mohammed bin Rashid Al Maktoum, UAE Vice President, Prime Minister and Ruler of Dubai, "may Allah protect him" launched the Government Policies Platform in 2015. The launch of this platform has been achieved in line with the government's objectives represented in achieving the full smart transformation in all entities and facilities in UAE, as well as in building a knowledge-based economy.

The platform gives a chance for training, discussion and interaction on issues related to the government work in UAE, including different features and sections such as "Government Expertise", "Your Guide to Professionalism" and "Ask an Expert". The feature of "Government Expertise" provides a variety of strategic studies prepared by the federal entities in collaboration with leading consulting firms, which have been broken down and classified by sector. The feature of "Your Guide to Professionalism" presents guidelines and a set of practical applied and training tools, as well as a series of summaries for the most important books related to decision-making, leadership and policy formulation. Regarding the feature of "Ask an Expert", it gives the opportunity to interact with a group of experts from major consulting firms with various specialties, as they provide their expertise for the members immediately and without any costs.



The platform provides "search" service known as "E-Consultant", which helps the members browse the website and find the required information quickly and easily, or use the tools that assist in policy formulation, either by general or specialized search based on sector.

* *The contents of the platform is only available to decision-makers and stakeholders in the field of government policies of the federal government employees.*

(For further details, please refer to the website of https://policynet.moca.gov.ae) .

Practical Case - Federal Authority for Government Human Resources (Ma'arif Initiative)

FAHR has unveiled and launched "Ma'arif Initiative", due to its belief that training leads to the transfer of technical and scientific knowledge in a way allowing the employee and the entity address the challenges posed by the acceleration of knowledge within the work environment. This initiative represents one of foreign sources of knowledge, which is based on the effective partnership between the federal entities and the private sector in the United Arab Emirates, through which a list of top training services providers in the state will be prepared, aiming at the development and empowerment of human capital in the federal government.

(For further details, please refer to the website of Federal Authority for Government Human Resources (FAHR): http://www.fahr.gov.ae)

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5. Benefits of Knowledge Management

The application of the concept of knowledge management has many benefits, which are aligned with the entity strategy and contribute to the achievement of its objectives. Some of such benefits include, for example:

At the employee level

- Improving and accelerate the decision-making process because of the availability of most appropriate practices;
- Increasing the efficiency and productivity through the utilization of proven solutions and avoidance of repeating past mistakes;
- Accelerating the transfer of knowledge by focusing on new employees when they join the entity, through the implementation of "Orientation Program for New Employees," which contributes to the provision of opportunities to have access to knowledge within shorter time frame;
- Increasing the job / functional harmony and employee satisfaction by raising the levels of motivation, participation and institutional loyalty, in addition to the development of competencies and skills, reducing job turnover rates.

At the entity level

- Achieving the entity strategy and building the “Institutional Memory”;
- Encouraging innovation and creativity through teamwork;
- Counting, documenting, saving and updating explicit and tacit knowledge of strategic and operational importance, so as to ensure the performance of tasks effectively;
- Increasing the customer satisfaction by providing high-quality services as well as through effective communication; and
- Improving financial performance through increasing the revenues and savings in expenditures.

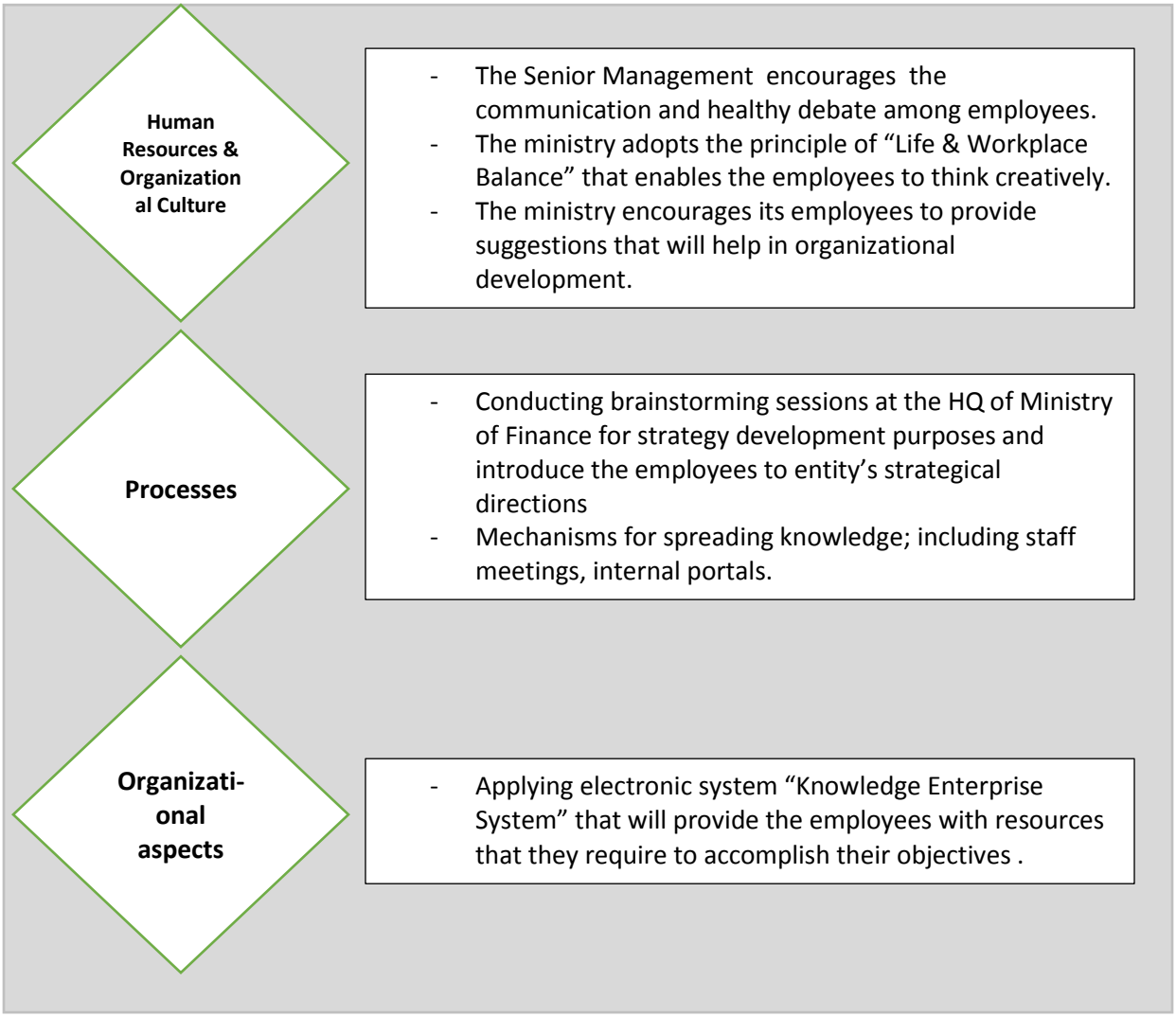
According to a study published by Dubai School of Government (Mohammed Bin Rashid School of Government) in December 2010, entitled "Knowledge Management in Public Sector in Dubai: Opportunities and Challenges", the government entities in Dubai reaped a number of benefits through the application of knowledge management initiatives.

Case Study - Ministry of Finance in Singapore:

Singapore institutions had the lead to address the risks involved in the absence and application of knowledge management framework, such as the Ministry of Finance. The ministry is one of the civil service institutions in Singapore, and is responsible for exerting the necessary efforts to make Singapore a global financial center by ensuring that its laws comply with international standards and best practices, especially with respect to accounting standards and principles of corporate governance.

The ministry has faced significant challenges as a result of the lack of a systematic way of organizing information, and the lack of a mechanism for the management of large databases and searching in them, in addition to the loss of (*institutional memory*) over time, especially in light of the high job turnover rate. As a result of the lack of a specific policy to archive and store important e-mails and documents, the two processes were subject to the sole discretion of the employees, without any directions, thus they were keeping soft / electronic copies of documents in multiple places, such as intranet, e-mail and hard drives. All these factors have led to wasting time, duplication of exerted efforts, low effectiveness indicators in work and the employees' complaints, prompting the Ministry think carefully about the application of a clear framework for knowledge management.

Accordingly, the Ministry formed "Knowledge Management Committee", with the membership of its senior officials, in order to develop an integrated framework for the knowledge management and the development of relevant action plans. The efforts exerted included the promotion of culture of learning, and honoring the teams that put forward and implement new developmental ideas, as well as publish what they learned from their mistakes in the implementation phase, along with the application of an electronic linkage system.



As a result, the Ministry reaped many benefits, including, for example, excellence in customer service, increased efficiency and productivity, saving the knowledge and having access to them quickly.

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6. Assessment of Knowledge Management Maturity at the Entity

Assessing the maturity level of the concept of knowledge management and its applications at the entity is considered one of the relevant initiatives success factors. It is worth mentioning that it is not necessary that this process should be quite expensive, but it must be systematic.

The Guide in Annex "A" includes "Questionnaire Form of Assessment of Knowledge Management Maturity at the Entity", which provides a practical way through which the entity can define the maturity level of its knowledge management, thus helping to develop the strategy and priorities of its own knowledge management.

Some of the criteria that can be used to assess the maturity level of knowledge management at the entity as discussed by above-mentioned questionnaire form:

Leadership Criterion	:	It is concerned with setting a clear vision and strategy for knowledge management, as well as providing the necessary resources to ensure its achievement and success. It also tackles the issue of enhancing the role played by the entity leaders in the field of knowledge management, in terms of encouraging the dissemination of knowledge.
Processes Criterion	:	It is concerned with the harmonization of internal processes with the mission and strategic objectives of the entity, in order to achieve the excellence in performance.
Human Resources Criterion:	:	It is based on the development and implementation of education and training programs, in order to raise the efficiency of the employees. It also encourages the application of an orientation program for new employees, the formation of internal teams, as well as owning database for competencies of the employees.
Technology Criterion	:	It is related to the development of technology infrastructure by the entity (such as the Internet, the intranet and website), so that it can cope with its own knowledge management strategy.
Learning and Innovation Criterion	:	It is concerned with the entity's promotion of learning and innovation values, empowerment of employees, and provision of incentives and motivations for the dissemination of knowledge and information.

Assessment of knowledge assists in "knowing what the entity knows" and "knowing what the entity should know". Some of the advantages that have a positive impact on the employees and entities:

1. Defining the knowledge needs, especially with regard to the main operations and taking important decisions;
2. Identifying the knowledge gaps that negatively affect the achievement of the goals and success of the entity;
3. Assessing the quality of knowledge and information sources (including to what extent it is easy to access them, its suitability for use, and the possibility of re-use);
4. Identifying the challenges that impede the flow of knowledge and its access for those who need it;
5. Identifying the opportunities that will reduce activities costs related to knowledge (for example, avoiding duplication of efforts in having access to knowledge, its production and updating).

The most appropriate time for the assessment of knowledge is before proceeding with the preparation of the entity strategy and initiatives related to knowledge management, which will help to identify the priorities, and provide a baseline that can be referred to for measuring the achieved progress.

The following figure illustrates the steps that are recommended for assessing knowledge:

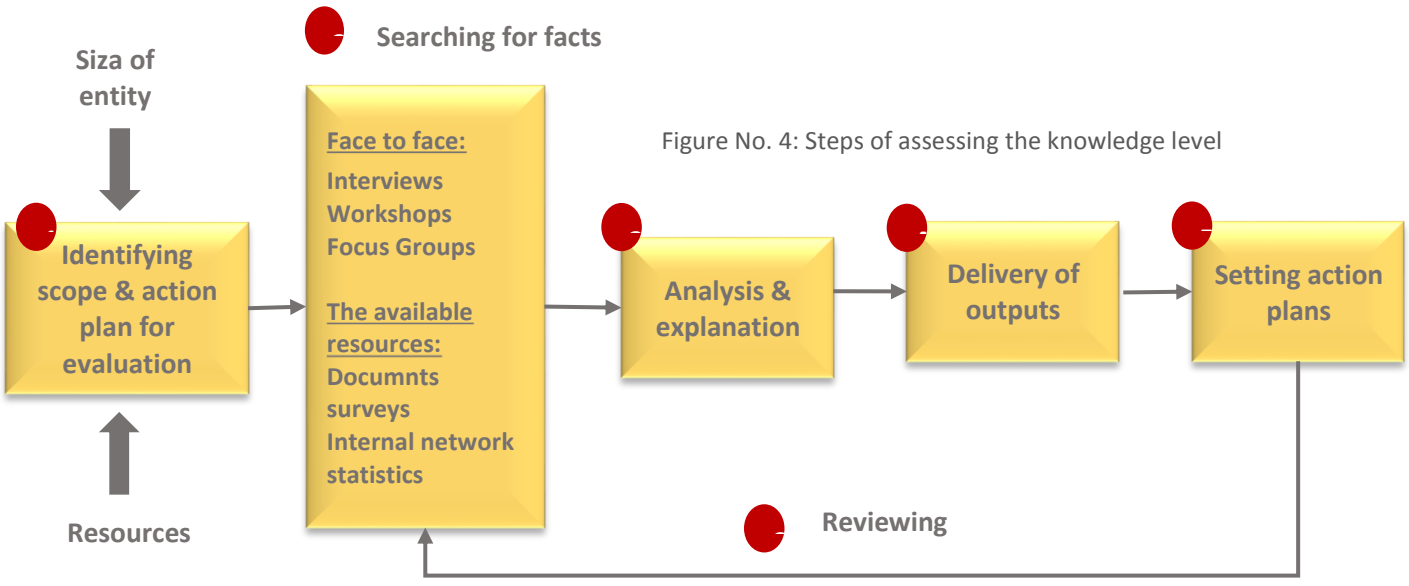

Figure No. 4: Steps of assessing the knowledge level

The first step requires "defining the scope of the assessment and its planning", so as to clarify the aspects to be covered, as well as the effort that will be exerted. Then, the "Finding Facts" stage starts, which includes the collection of data on knowledge needs, the ease of having access to knowledge and its quality, in addition to its flow path and any obstacles encountered. The "analysis and interpretation" stage is related to identifying important knowledge that requires more attention and defining the knowledge gaps and any observed duplication. Then, "output and results" will be delivered, so that "the development of effective action plans" begins regarding the knowledge management. To ensure the continued development, it is a must to "review the results of the action plans and make any amendments", as necessary and on a period basis.

It should be noted here that there are many ways that can be used to search for and collect facts, including:

Questionnaires*	Interviews	Workshops
Questionnaires gather information about the knowledge needed by the entity, as well as about the current status of the different sources of knowledge. * *Please refer to Annex "A" to review the Questionnaire Form of Assessment of Knowledge Management Maturity.*	Interviews collect information about how the employees perform their duties, and about the nature of knowledge that they use when making decisions. During the interviews, important information arise about factors that may affect the application of knowledge management initiatives, such as the corporate culture.	Workshops are considered effective in getting a lot of data and information in short time.

Focus Group (Focus Group)	Documents	Information Technology Systems
They are usually used to obtain deeper ideas regarding specific topics and practices in the field of knowledge management.	Through the documents, many issues are clarified, like the entity's objectives, plans, processes, etc. The presence or absence of some documents indicates the level of knowledge culture at the entity.	The analysis of the intranet and e-mails contents, in addition to identifying to what they are useful, could result in indications of the performance effectiveness of the entity.

As for outputs, they can be viewed or delivered in multiple ways. Most commonly used methods include:

- **Official reports:** Through which the main findings may be clarified and divided according to the results of all departments separately.
- **Databases:** Are represented in spreadsheets referring to information sources and their uses.
- **Illustrations of knowledge:** Can take the form of visual representation of the knowledge ranges in accordance with their flow at the entity, through which obstacles and opportunities for improvement can be defined, which ensure having access to accurate knowledge in a timely manner (for example: "Knowledge Process Maps").

The best results are those that can provide useful outputs, including:

- Identifying the most important knowledge, in terms of the need for its management;
- Defining the sources of knowledge, whose loss would cause damage to the entity;
- Hidden costs resulting from the lost time the employees spend in searching for specific knowledge they need to accomplish their tasks;
- Identifying available opportunities for obtaining knowledge easily (for example: Can they be obtained during performing daily duties by the employees); and
- Providing benchmarking basis so as to measure the development of knowledge management initiatives and assess them accordingly.

Practical case - the Prosecutor's Office in Singapore:

The prosecutor's office in Singapore launched a pilot project for knowledge management under the auspices of the Singapore government in 2002. The project was launched in collaboration with one of expertise firms that evaluated the maturity level of the concept of knowledge management through standards related to: a) leadership and corporate / institutional culture; b) knowledge management processes; c) measurement; and finally d) technology through conducting an internal audit of the knowledge management process, as well as preparing maps for data and information flow. The evaluation process lasted for six months and concluded the following results: Loss of knowledge because of high job turnover rate, the presence of incomplete documentation of processes and duplication of information available. It was clarified that organizational units are not familiar with the projects initiatives launched by other units. While maintaining the final decisions taken in the files, mechanism based upon to reach such decisions or even the alternatives put forward for discussion, was not found. One of the most serious findings that made the expertise firm interested in knowledge management is to give conflicting advice about the same subject for customers.

Based on the results, a workshop was held to set a vision for knowledge management with the participation of the senior leadership and knowledge management representatives from various organizational units. The leaders also participated in giving suggestions regarding the improvement of knowledge management projects and in the dissemination of success stories related to the dissemination of knowledge. In addition, this was not the final point, as the Public Prosecutor participated in field visits paid to a number of legal institutions, so as to present the experience learned from knowledge management at his entity, in order to provide the benefits for all entities.

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7. Knowledge Management Strategy

When developing special knowledge management strategy, the entity shall make sure that it is consistent with the overall strategy of the entity. It must also take into account the following components:

- Vision and mission of the entity concerning the knowledge management;
- Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT);
- Strategic objectives of knowledge management;
- Initiatives related to knowledge management; and
- Action plans related to knowledge management.

7.1 Vision and mission of the entity concerning the knowledge management

The vision is an inspiring statement explaining the future perception which the entity aspires to achieve in the field of knowledge management; while the mission is the statement of work to be done by the entity, which makes it different from others.

Explanatory example: Jordanian Ministry of Justice

Vision: It is an active and distinct ministry in knowledge management and investment to achieve its goals and improve institutional performance at the Jordanian public sector level.

Mission: Establishing a system for knowledge management at the ministry to improve the quality of services provided by employing it in strategic planning and making and taking decision, so as to keep pace with the rapid technological developments and changes.

(For further details, please refer to the website of Jordanian Ministry of Justice: http://www.moj.gov.jo)

7.2 Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT)

يعAnalysis of Strengths, Weaknesses, Opportunities and Threats is deemed a part of (Environmental Scanning) carried out by the entity to identify the factors that provide an important input for the development of appropriate strategic objectives.

It should be noted that the strengths and weaknesses are internal factors, while opportunities and threats are factors emanating from the external environment in which the entity works. In addition, to define such aspects, the entity shall answer the following questions:

Strengths	Weaknesses
Which factor does make the entity distinct? Which job does the entity do better than others? What are the resources available at the entity?	Which factor could be improved at the entity? What should be avoided at the entity? What are the things that could be considered by the (Stakeholders) as weaknesses?
Opportunities	**Threats**
What are the opportunities available in the labor market? The opportunities may be available through: ○ Rapid changes in technology ○ Developments and updates related to laws and legislations ○ Changes in social patterns and lifestyle of individuals ○ Local events	What are the obstacles faced by the entity? what is done by the competitors? Are there changes made to the standards of services provided? Does the technological progress threaten the future of the entity? Does the entity face financial problems?

Explanatory example: Government entity

Strengths	Weaknesses
There is a strategic plan for the entity, containing initiatives concerned with knowledge management (such as preparing studies and reports, along with developing a knowledge management strategy) There is an internal portal at the entity level, and there is a number of shared files that contain different information and knowledge Some types of knowledge are documented at the entity)such as periodicals, work guides/manuals and policies) Supporting the senior management and bringing its attention to the idea of developing knowledge management strategy	Weak awareness of the concept of knowledge Lack of a specific mechanism to count the explicit and tacit knowledge at the entity The lack of systematic and documented practices for processes of knowledge dissemination and transfer
Opportunities	**Threats**
Taking advantage of Emirates Program for Government Excellence in the field of knowledge Having access to the experience and expertise of ministries and entities in the field of knowledge management	Rapid changes in information technology and the high costs of some of the electronic systems that contribute to the implementation of knowledge management projects

7.3 Strategic objectives of knowledge management

The entity shall set strategic goals to ensure the implementation of its strategy, in line with its vision and mission, and it is important that such goals should be (SMART):

- (Specific)
- (Measurable)
- Attainable through the available skills and resources (Attainable)
- (Realistic)
- (Time-Bound)

Explanatory example: Jordanian Ministry of Water and Irrigation

The first strategic objective:

Raising the awareness among all staff regarding the regulations and transactions of the ministry within four years (as of 2007)

The second strategic objective:

All employees, whose work nature requires the use of computer, shall get ICDL (International Computer Driving License) for at least the next four years (as of 2007)

The third strategic objective:

Counting the assets of explicit knowledge in full within four years (as of 2007)

The fourth strategic objective:

Finding electronic protection systems for the hardware, software and data during the next four years (as of 2007)

(For further details, please refer to the website of Jordanian Ministry of Water and Irrigation: http://www.mwi.gov.jo)

7.4 Initiatives related to knowledge management

Initiatives are the programs to be applied by the entity across a range of related activities in order to achieve its strategic objectives.

Explanatory example: Federal Authority for Government Human Resources (FAHR)

Strategic Objective:	Activation and enforcement of a knowledge program that supports the achievement of FAHR strategy (2014 - 2016)

Initiatives	**Relevant activities**	
Launching and activating initiatives that contribute to raising the levels of knowledge dissemination at FAHR	1.1	Launching the Knowledge Award at FAHR
	1.2	Human Resources Club
	1.3	Forum of Government Human Resources Best Practices
	1.4	Human Resources Magazine
	1.5	Newsletters/ periodicals (Bayanati, Do you know, An Eye on)
	1.6	Launching Knowledge Competitions

7.5 Action plans related to knowledge management

The action plans related to the implementation of knowledge management objectives includes the name of the initiative, the related activities group, as well as the time frame for each activity, the implementing entity and key performance indicators that refer to progress achieved in the application.

Explanatory example: Federal Authority for Government Human Resources (FAHR)

Initiative	Activity	2016				Implementing Entity	Key Performance Indicators
		First Quarter	Second Quarter	Third Quarter	Fourth Quarter		
Launching and activating initiatives that contribute to raising the levels of knowledge dissemination inside and outside FAHR	Launching the Knowledge Award at FAHR				4	Human resources and services department + Strategy and future department	Number of honorees based on the results of Knowledge Award Employee, Leader, Department
	Forum of Government Human Resources Best Practices		1			Human Resources Policies Sector and Programs Sector	Forums number
	Versions of Human Resources Magazine		6		6	Government Communication	Number of versions

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8. Application of Knowledge Management Strategy

8.1 Dimensions related to Knowledge Management Strategy

To ensure the success of knowledge management strategy, there are important dimensions that must be examined and studied by the entity, along with identifying any gaps related to them, and then bridging them through clear action plans. These dimensions include the following:

Leadership	▯ The leadership focuses on the knowledge management as a strategic priority: ○ Setting a vision and clear expectations for employees with regard to knowledge management; ○ Developing, reviewing, updating the knowledge management strategy, then adopting it to make plans for the activities and identify specific targets related to knowledge at the entity level; ○ Providing the resources required for the application of strategy and initiatives of knowledge management. ▯ Senior leadership's commitment to the efforts exerted with regard to knowledge management: ○ Actively contributing to the activities related to the knowledge production / acquisition, classification, storage, dissemination and use / re-use; ○ Using knowledge assets to support the decision-making process.
Culture	▯ Creating thought adopting knowledge management culture: ○ Enable the employees to participate in activities related to knowledge management, as well as honoring those who support its application and development; ○ Promoting and encouraging creativity and innovation at the entity. ▯ Developing the ability to accept change and learn from it: ○ Raising awareness of the importance of the change and its positive impact on the entity, through various channels such as, for example, training workshops, periodic meetings, and others; ○ Using resources and knowledge assets available to manage the process of change;

	○ Explaining any changes / amendments related to the operations of knowledge management for the employees, customers and stakeholders; ○ Assessing the impact of the changes / amendments made to the knowledge management processes and to what extent they can achieve the targeted results.
Operational and management aspects	▯ Defining clearly the roles and responsibilities related to knowledge management: ○ For further details, please refer to "8.2 – Roles and Responsibilities" in this Guide. ▯ Developing, implementing and updating clear policies, procedures and processes regarding the knowledge management.
Institutional resources	▯ Designing the technology and developing its databases, so that they are characterized by the following: ○ High operational capacity; ○ Ability to integration between different systems and software; ○ Quick performance; ○ Accessibility; ▯ Development of human resources efficiency, so that culture of knowledge management can be enhanced: ○ Identifying and classifying knowledge and skills of human resources, along with using them according to the needs of the entity; ○ Providing training and development opportunities related to knowledge management and measuring the return of them; ○ Providing an appropriate environment that encourages human resources to improve the performance through knowledge acquisition and dissemination at the entity level. ▯ Providing financial support for designing programs and implementing projects related to knowledge management: ○ Studying the financial implications of projects and investments in assets through the use of financial instruments and standards to ensure effective funding of the activities of knowledge management.
Continuous improvement	▯ Developing performance indicators related to knowledge management and reviewing them periodically, so as to

ensure their effectiveness, as well as measure progress in achieving the goals.

- The targeted results can include the following indicators associated with knowledge:
  - Participation and knowledge exchange rates;
  - Knowledge counting rate at the entity;
  - Ease of accessibility to the knowledge at the entity.
- Identifying knowledge exchange practices and future development opportunities for the activities related to knowledge management.

8.2 Roles and Responsibilities

The size and extent of the maturity of the entity, in terms of knowledge management, could have a significant impact on defining the relevant roles and responsibilities. Some entities may establish an organizational unit specialized in knowledge management and then the responsibility will be divided between it and Strategic planning and future department, human resources department, information technology department, as well as other organizational units, while defining clearly the role of each of them by their speciality. .While other entities may form a team specialized in knowledge management – Knowledge Management Champions "consisting of five to seven members from different organizational units in the entity (the number of members depends on the size and scope of the work).

Regardless of the organizational structure of the entity, the roles and responsibilities usually revolve around the following:

1. Knowledge Management Champions:

- Preparing, developing and updating an integrated strategy for knowledge management, as well as the relevant objectives and key performance indicators, so as to be consistent with the strategy and objectives of the entity;
- Developing, implementing and updating policies and procedures related to knowledge management;

- Designing and applying the initiatives related to knowledge management, along with monitoring the level of their achievement (taking into account a number of factors including, but not limited to, the maturity level of the concept of knowledge management at the entity, the availability of resources, etc.);
- Having access to the best local and international practices in the field of knowledge management in order to modernize and develop the style of work;
- Conducting assessments of knowledge management (Knowledge Assessments) in order to identify strengths and areas for improvement;
- Creating reading and knowledge management culture, taking into account the best practices locally and internationally, through using different methodologies including, but not limited to, workshops, monthly newsletters of the entity, and others; and
- Cooperating with other organizational units to ensure the achievement of the objectives within the time frames and specified financial allocations.

2. **Strategy and future department (regarding knowledge management):**

- Ensuring alignment of the strategic plan of knowledge management with the strategic plan of the entity;
- Reviewing the objectives and performance indicators of knowledge management for ensuring their accuracy and effectiveness;
- Following up the results of performance indicators and reviewing the accomplishment reports related to the knowledge management to ensure continuous improvement; and
- Participating with other organizational units within the entity to review and amend any developmental processes.

3. **Human resources department (regarding knowledge management):**

- Developing, applying and updating policies and procedures of human resources in order to serve the operational plans of knowledge management (for example, training, learning and development system, hiring and education policy, job performance management system, etc.);
- Ensuring the effectiveness of hiring and appointment processes, so that qualified candidates, as well as those who adopt knowledge and reading management culture, can be employed and appointed;
- Defining training and learning needs for all employees of the entity, in cooperation with the organizational units (including knowledge team), ensuring that needs are fulfilled within the specified time frame, in addition to following up the implementation procedures of knowledge dissemination;
- Establishing, developing and updating personnel database, so that it can define the different competencies, skills and knowledge of the employees, and thus taking advantage of them when needed (skills bank); and
- Contributing to building a knowledge culture at the entity by launching initiatives to encourage and reward employees to transfer knowledge (for example, Outstanding Employee of the Month, etc.).

4. **Information technology department (regarding knowledge management):**
   - Coordinating with knowledge team to define the technical requirements that contribute to the achievement of strategic objectives;
   - Ensuring the alignment and integration of technical systems and software for the purposes of storing resources;
   - Providing technical support for initiatives related to knowledge management, within the time frame and financial allocations; and
   - Facilitating the employees' access to the technology by which they can get the knowledge that will help them accomplish their tasks.
5. **Other organizational units (regarding knowledge management):**
   - Providing the necessary support for the knowledge team in order to apply the policies and procedures effectively;
   - Encouraging employees to participate in initiatives related to knowledge and reading management.

The entity should not ignore the important role played by the employee in the production, storage, dissemination and application of knowledge; therefore, the employee is deemed, in various functional groups and organizational units, a key partner in the creation and adoption of a culture of knowledge, which is beneficial to business results.

8.3 Challenges and Solutions Proposed to Overcome them

Before applying the framework of knowledge management, the entity should make a survey of the internal and external work environment to find out the challenges that may be faced in this area, and develop appropriate action plans to overcome them based on results and priorities. A number of tools can be used, for example, Questionnaire Form of Assessment of Knowledge Management Maturity at the Entity (Annex "A"), analysis of "SWOT" (strengths, weaknesses, opportunities and threats), or others.

Most of the challenges to be faced by the entity stem from the absence of one or all of the dimensions that we discussed above. Thus, the entity shall deal with the challenge, according to its own priorities and potentials.

Factor	Challenge	Proposed Solution
Leadership	Lack of adoption of the concept and applications of knowledge management at the entity and not considering it of strategic importance.	Showing the positive results which will be reflected on the entity, in terms of the productivity and profitability through (*Cost-Benefit Analysis*) for example.
Culture	The system of values, standards and practices prevailing in the entity does not believe in the concept of knowledge management and prevent its application for the monopoly of knowledge, fear of change or lack of awareness of the desired target and benefit.	Raising the awareness about the concept of knowledge management, reading, as well as the desired objectives and benefits of its application, using many methods, including, for example, workshops, internal newsletter, and others. Developing an integrated program of change regarding the application of the concept of knowledge management, provided that the employees and the leader are mainly involved in the process. Providing learning and development opportunities for the employees, so as to increase their efficiency, which would positively affect the internal practices and processes at the entity.

Factor	Challenge	Proposed Solution
Culture (continued)		- Developing a system of reward and appreciation for the behaviors that support reading and knowledge management culture, as well as the dissemination of success stories.
Operational and management aspects	- Lack of clarity of roles and responsibilities related to knowledge management. - Lack of proper organizational structure to create knowledge management culture. - Absence of clear and documented policies and procedures with respect to knowledge management.	- Clarifying the roles and responsibilities related to the process of knowledge management, taking into account the nature, size and needs of the entity. - Providing the process of transfer of knowledge when there are many employees involved in multiple project teams. - Developing clear and documented policies and procedures for the knowledge classification, storage and dissemination.
Institutional resources	- Limited operational capability of the technology, slow performance and security violations. - There is no integration between different systems and software. - The difficulty of access to the technology and information technology. - Poor efficiency of human resources. - Lack of financial resources for the design and implementation of programs and projects related to knowledge management.	- Investment in the establishment and modernization of a solid and secured infrastructure of information technology. - Ensuring that there are backup copies of all materials stored electronically to ensure the business continuity and non-stoppage of services. - Ensuring the possibility of upgrading systems and software, as well as the ability to connect them with others in the future. - Providing access to information technology resources (such as providing the user name and e-mail address for all employees, and others). - Developing the efficiency of human resources through the relevant training, learning and development processes. - In case of lack of financial resources, programs and

		projects related to knowledge management can be designed and implemented through the optimum utilization of available resources (for example, depending on the efficiency of the staff instead of outsourcing companies, etc.).
Continuous improvement	Not setting suitable performance indicators or developing many indicators not focused on what should be measured. Not reviewing, monitoring performance indicators in a timely manner, and delaying in their amendment.	Developing key performance indicators that measure the important aspects that affect the course of the implementation of relevant initiatives. Linking performance indicators with the strategic objectives of the entity to illustrate the return on investment in knowledge management. Developing a mechanism to monitor the performance indicators and setting a clear timetable for review; as well as making required amendments.

The following is a practical example on the challenges faced by an institution upon the application and how to overcome them:

Practical case – Engineering Conductors Authority (People's Republic of China):

Engineering Conductors Authority was founded in 1984 and currently owns plants in a number of Asian countries, including Japan, Korea and Malaysia. This Authority manufactures integrated electronic circuits, not only for home use but also for use in manufacturing processes related to the field of aviation and spacecraft.

During the period starting from 2002 to 2005, the Authority possessed a number of factories in Asia, resulting in a significant increase in its size and continuous restructure. As a result, a large number of new employees was hired, as well as the loss of a similar number of experienced staff. Consequently, some engineers began seriously considering the issue of the establishment of a system for knowledge management. The initial efforts exerted were random and voluntary, since such engineers searched for some software that will help them build a platform for knowledge management. However, **in the absence of support from the senior leadership and guidance appropriate to regulate the process of using the platform and making sure the employees are aware of it**, the platform was just a repository for some of the reports and documents that are difficult to be classified or referred to when needed.

In 2006, the director of the engineering sector decided to invest in the establishment of a centralized knowledge management system based on an internal study of the current situation in the company, at a cost of up to 189,000 US Dollars. Full-time 6 employees were appointed to work in the project.

Thus, thinking about the establishment of a system for the management of knowledge and its application underwent three stages as shown in the following table:

First Stage	Second Stage	Three Stage
Status at the company		
▯ The staff were using their computers to save the documents. ▯ The intranet was an unstructured or unorganized database. ▯ The engineers were spending long time and exerting many efforts to get the knowledge they need. ▯ Upon the resignation of an engineer, the new engineers found out it was difficult to perform their functional tasks, due to the lack of guides or any kind of training in the workplace. ▯ Although there were reports explaining the problems of the last projects, the difficulty of having access to them led to the same problems during the implementation of new projects. ▯ The intranet was exposed to security breach because it could be accessed by anyone with an e-mail account at the Authority.	▯ The Authority faced challenges when applying the knowledge management system, including: ○ Engineers hesitated in uploading documents that contain knowledge, due to the lack of intellectual properties protection policy; ○ The possibility of security breach of the intranet; ○ Absence of a regular maintenance plan for the intranet. ▯ An organizational unit for knowledge management was established, along with appointing a director and experienced team. ▯ An integrated action plan was developed after studying the needs of the Authority, as well as the challenges faced during the first stage and the beginning of the second stage. ▯ The application process began on a trial and interim basis, so as to include at first the research and development department, and some sections at the engineering department. ▯ The application steps included the establishment of a website (using service provider free of charge) for each department, so that the existing knowledge can be systematically arranged in it, and nobody could have access to it, except after obtaining a prior permission from the concerned officers. ▯ The senior leadership gave directions to set an annual goal related to knowledge management for each employee, so that everyone can accountable and participant.	▯ The second phase has been successful at the level of engineers; however, complaints were filed by users, which required conducting a review of the effectiveness of the knowledge management system till that time. ▯ Since the managers have the authority to check and audit the quality of the documents as well as the possibility of whether to save or not them without clear criteria, this issue started affecting the course of action. ▯ As a result of following a different way in saving and storing the documents by each department, this led to the fact that some of the staff prepared many detailed reports and saved them without classification, which caused difficulty in searching for a particular topic. ▯ It was clarified for the concerned officers that the free websites created in the second stage of the application need very high costs to be updated and developed in order to overcome the new difficulties. ▯ The senior leadership, represented by the director of the engineering sector, decided to invest in the development of a centralized system for knowledge management, in collaboration with consulting firms, as well as the appointment of full-time staff to work in the project.

First Stage	Second Stage	Three Stage
Available knowledge documents		
☐ Reports on field visits of the managers ☐ Reports on the quality control of the projects ☐ Training materials related to some functions	☐ Reports on field visits of the managers ☐ Reports on the quality control of the projects ☐ Training materials related to some functions	☐ Reports on field visits of the managers ☐ Reports on the quality control of the projects ☐ Training materials related to some functions ☐ External knowledge sources ☐ Documents proving the personal knowledge of the employees.
Documents classification		
☐ Not available	☐ Not available	☐ Available
Appointment of experts		
☐ N / A	☐ N / A	☐ Available
The responsibility of personnel accounts manager		
☐ The responsibility is not clear and is undertaken by a volunteer.	☐ Low control level: An account is opened for employees who file an application, and there is an unlimited number of accounts for each employee.	☐ High control level: Employees' accounts were aligned with the available database at human resources department, so that one account is only available for each employee. Employees are only allowed to have access to knowledge management system.

As per this resolution, the exerted efforts began reaping their fruit through providing knowledge to the largest number of the Authority employees in various operational positions; the training and career development indicators for employees improved; the employees' confidence in their workplace or entity increased; as well as the internal work environment improved.

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9. Tools and Methods of Knowledge Management

There are diverse and specific tools and methods for knowledge production, acquisition, classification, storage, dissemination, use and re-use, according to the maturity of entity with respect to this point (please refer to "Annex A"),) , taking into account the commitment to what is stated in the "Guide of specifications of open data for the government entities in the United Arab Emirates", "Cabinet's resolution No. 21 / 2013 regarding the regulation of information security in the federal entities", and "framework for regulating the dissemination and exchange of data".

9.1 Tools and Methods of Knowledge Production / Acquisition

9.1.1 –Knowledge Café (including brainstorming sessions and laboratories of innovation)

Employees may be preoccupied with achieving their job goals and miss the chance to go back and think carefully about the discussions held during the teams meetings or brainstorming sessions; which could lead to the loss of benefits that may be gained by the entity, due to gathering knowledge and experience covered by the discussions and dialogues held in this respect. Hence the role of (Knowledge Café).

Knowledge Café is a way to motivate the employees to discuss and produce applicable and meaningful ideas and visions, as participants will sit in a circle and the – facilitator" would clarify the objective of the meeting and its topic, then ask one or two questions. For example, if the subject of the meeting is related to the management of competencies and talents in the institutions, the question asked to the group could be as follows: "How can talents and competencies be attracted and solicited? And how can they be kept and motivated?"

After asking questions, the group will be divided into small groups, each one consists of about five employees. Each group discusses the questions for about 45 minutes. These discussions are not managed by the facilitator,

and no summary of the discussion held, is prepared for the purpose of presentation to the large group.

After the specified time has elapsed, the small groups will hold again dialogues within the large group led by the facilitator for 45 minutes more. At this stage, participants will listen to the ideas raised by each group and think about them in order to express their opinion and feedback on what they have heard.

To ensure the effectiveness and success of the Knowledge Café, the following is recommended:

- Participation of 15 – 50 persons / participants (the optimal number varies according to the size of participation);
- Restricting the time of the meeting between 1 and 2 hours and spending time in discussion, as there are no presentations and feedback sessions when using this method for the production and acquisition of knowledge;
- Making the participation voluntary and spontaneous.

"Brainstorming" and laboratories of innovation are deemed activities that can take place through Knowledge Café. They are easy ways to help a group of employees produce a large number of new ideas and non-traditional solutions.

Idea innovation process is divided into:

<u>The first phase - collecting ideas:</u>

- Putting forward the maximum number of new and non-traditional ideas
- Gathering and writing down ideas without checking their usefulness

<u>The second phase - evaluating ideas:</u>

- Searching for innovative ideas
- Judging the ideas positively
- Refining and improving ideas

The following steps illustrate how to reach the innovative (creative) ideas:

1. Approval of the (facilitator) who will lead the process;
2. Ensuring that all participants are aware of the topic of discussion, as well as the instructions related to brainstorming;
3. The participants agreed on the criteria that will be used for the selection of ideas and solutions, and then they will present their ideas;
4. Searching for duplicate ideas gathered under one title; and then voting for feasible ideas according to the criteria agreed upon at the beginning of the session;
5. Choosing the ideas that got the highest number of votes, and discussing how to apply them through a clear action plan.

For the success of the sessions, the following points shall be taken into consideration:

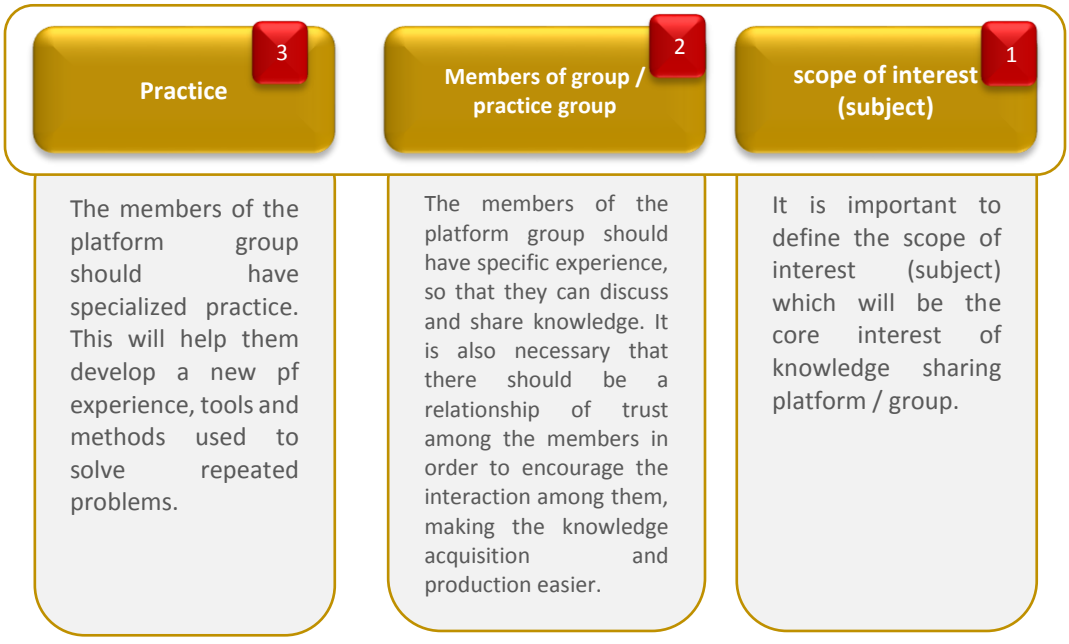
- Inviting experts and specialists to attend the sessions / meetings and participate in them;
- Setting clear and specific goals for the session;
- Providing information on the subject of the discussion; and
- Encouraging the participants to ask relevant questions and contribute effectively.

9.1.2 Knowledge Sharing Platforms

Consist of a group of employees who have a common interest in a particular subject, so that they can learn more about it through periodic interaction among them. Knowledge Sharing Platforms are established to produce and share knowledge, experience and skills among their members.

The size of the group, which forms the platform, can vary from no more than five persons and could reach thousands of people. It is possible that the members belong to one organizational unit or more inside the entity, and it can also include members related to exterior entities. An example of knowledge sharing platforms, include occupational health and safety team in the federal government, in addition to the heads of happiness and positiveness in the federal entities.

The following three elements should be taken into account when forming knowledge sharing platforms:



The steps that can be followed to form knowledge sharing platforms and maintain their sustainability include the following:

1. Creating a significant motive for a group of employees to join the knowledge sharing platform due to the urgent and dire need to gain and share knowledge and experience.
2. Inviting the employees having passion in the specified subject to be present at knowledge sharing platform, and then present their thoughts and feedback on the following:
   - How is the topic / subject related to the strategy of the entity?
   - What are the main knowledge that can be produced, acquired and shared?
   - Who are the potential participants who will benefit from and provide benefits to the knowledge sharing platform?
   - What are the main activities that will contribute to the sustainability of the partnership between the various practitioners?
   - What are the major benefits to be gained by the entity and the participants?
3. Launching an initiative related to knowledge sharing platform through the social events of employees, since the atmosphere would be friendly and enhance the trust among them.
4. Holding main activities through the results can be achieved, along with maintain the enthusiasm of the participants. The activities are numerous and they include, but not limited to, the following: Classifying tacit knowledge provided by old employees or sharing good experience. It is very important the first meeting of the members of the knowledge sharing platform would be successful, along with concluding clear results to emphasize on the value of perseverance to participate in it.

   Default groups represent one of the forms of knowledge sharing platforms, including, for example, electronic cafes and "Whatsapp" groups.

9.1.3 Reading

Reading is deemed an intellectual exercise aimed at the acquisition of knowledge, the access to science, the development of individual skills, as well as increasing culture and awareness on a specific topic or general subjects. Reading sources vary, since it could be exercise through paper books, e-books, newspapers, magazines, specialized periodicals, the intranet of the entity and others.

It should be noted that "National Law of Reading" issued by the United Arab Emirates is the first legislation that gives the employee the right to enjoy specialized reading within the official working hours. The employers shall provide reading material as the professional or specialized culture is prerequisite for the development of performance and improving the productivity. The benefits of reading gained by the employee and the entity include, for example, but not limited to:

- **Increasing the ability of analysis:** Reading strengthens the ability to analyze the data and events and link them to each other, so as to achieve results that are helpful in improving work performance.
- **Brainstorming:** Reading is considered an important source of acquiring knowledge in various fields, which helps the reader to actively participate in brainstorming sessions.
- **Reducing stress and tension:** Reading grants peace of mind, helping the employee to focus and relax so that he/she can consider the work challenges as opportunities for learning and development.

To ensure the acquisition of knowledge through reading, the employee must:

- Define the goal of reading as it will help him/her identify the type of material that will be read;
- Read what he/she is interested in, so that reading would be interesting and not boring. It is not necessary to read the material / book in sequence, but an employee can be read paragraphs that he/she sees they are beneficial to him/her;
- Be familiar with more than one source of information, so that reading can give him/her more ideas.

The entities which seek to promote this useful habit, should adopt initiatives such as:

- **Membership of public and electronic libraries:**

The entity can invite the representatives of public libraries to define the terms of membership and encourage employees to join. The entity can also pay the membership fees of some electronic libraries, so that their employees can have access to the latest references that benefit them.

- **Reading Club:**

The entity shall establish a reading club, and then you select a book or an article published in a specialized periodical and provide an appropriate number of copies for the members, so that the most important ideas put forward by the text, can be presented and discussed at regular meetings of the club. The entity can also invite the

author to hold the dialogue and give the necessary clarifications about the proposed concepts.

Practical Case - Reading Clubs in the federal entities in the United Arab Emirates:

Due to their keenness on promoting the culture of reading and dissemination of knowledge among their employees, many federal agencies established reading clubs to encourage their employees to have access and benefit from the experience of others, through organizing a series of periodic cultural events and meetings that enable them to broaden their knowledge and enrich their experience at the professional and personal levels.

- **Reading Hour**

  Each organizational unit can allocate specific time of one hour in the morning of last Thursday of each month to discuss a book or an article, and then the summary of the discussion will be published (for example, the main ideas, lessons learned, etc.) at the entity level.

- **Reading Competitions:**

  The entity can choose a certain book or an article, so that representatives of its organizational units can read, and then the date is set for a competition between different teams, as relevant questions will be asked and awards will be granted to the winning team at the end of the competition.

9.1.4 – Mentoring Scheme

Mentoring represents a work relationship between an experienced employee and another employee who needs guidance to perform his functions effectively. The experienced employee has professional experience and knowledge in a specific area, as he/she has the skill to

provide advice and guidance to support the professional development of other employees.

Mentoring Scheme provides the opportunity for transfer and exchange of knowledge in an informal atmosphere dominated by mutual trust among the employees, as the "Mentor"will help the employee understand the problem faced from different perspectives and aspects, and support him/her to reach appropriate solutions.

Some entities apply the mentoring scheme to help new employees to cope with the work environment, and enhance their skills, as well as for the purposes of leadership development. Therefore, they reap many positive results, including, for example, raising the level of employees efficiency, improving the quality of institutional communication, and strengthening the relationships between the employees, in a way supporting the work with team spirit to achieve the strategic goals.

9.2 Mechanisms of Storage and Dissemination

9.2.1 Knowledge Assets Management Systems / Archiving Systems

Document management systems (archiving systems) are deemed one of the most widely used methods at the present time to save institutional knowledge inventory, classify and describe data, so that it will be easy to search for and access them at the appropriate time, through exerting reasonable efforts.

Many systems are available for the purposes of knowledge assets management, and they differ in terms of cost (some are paid and free). They also differ in their design, in terms of complexity and comprehensiveness. To select the best among them, we have to take into account the following:

- Effectiveness of the system in terms of security;
- The possibility of managing knowledge assets by those in charge, the ability to modify their content by the employees, as well as the possibility of viewing them (in accordance with the powers available);
- Having access to the system easily via the intranet of the entity or through mobile devices and / or mobile phone;
- The possibility of Auto-archiving of knowledge assets (Auto-archiving), as well as keeping multiple formats (such as documents, presentations, multimedia), along with searching for them in developed databases;
- The possibility of making backup copies of the knowledge assets easily and periodically;
- The ability to keep old versions of the knowledge assets and easy reference to them when needed; and
- The ability to provide specific statistics on knowledge assets, such as number of views, duration of viewing, and others.

Practical Case - Dubai Courts:

Dubai Courts regulate the courts in the Emirate of Dubai, in terms of financial and administrative aspects, including and covering courts of first instance, courts of appeal and courts of cassation.

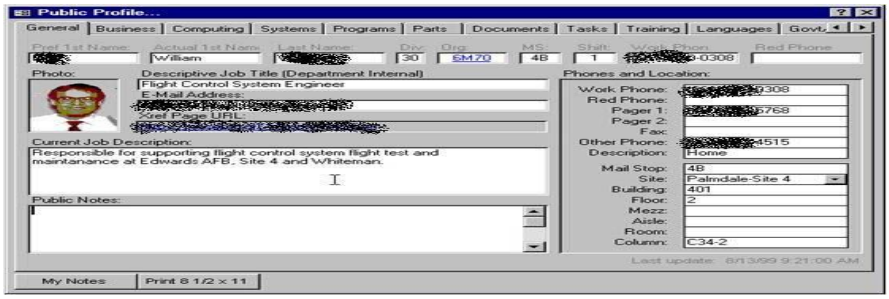
Dubai Courts are considered as leading entities in the field of knowledge management, since they use "E-Judge System". This system contains a network of electronic applications and tools, which include the procedures and mechanisms used by Dubai Courts judges to do their work, including: Electronic communication and correspondence system; e-knowledge system; electronic office of the judge; electronic archiving system; electronic pleadings system, electronic system for case management, etc.

In order to maximize the usefulness of the system and ensure its updating, the judge is required after issuing the judgment in a case, to enter the details of the case and how the judgment is issued in the system. Thus, the "E-Judge System" forms a resource and a reservoir of knowledge that can be referred to on a regular basis, as it helps the judge to carry out his duties, as well as facilitate his access to the information needed and previous cases considered and decided upon by current and former judges.

It should be noted that in 2011, it was clarified that the use of the system reduced the time spent for the completion of 86 % of the cases with a period up to three months, while the remaining part (14 %) is being completed in just six months.

9.2.2 Expertise Sources ("Ask an Expert")

Expertise Source (or so-called "Ask an Expert") is a technical tool that allows us to use the existing knowledge and effective dissemination through linking of the employees who need specific knowledge and others who possess such knowledge. This helps to avoid making mistakes or repeat them, and save resources.



It is possible that this tool can take the form of electronic yellow pages or in the form of more complicated systems that support the process of identifying experts and linking them to those who need them. The use of this method is easy, as we can search for a specific word. Accordingly, descriptive data will be immediately shown for the experienced employee, such as the name, image, telephone number, email address; in addition to the aspects of basic knowledge as shown in the figure above.

The design of such system requires the following:

1. **Defining the objectives of knowledge management at the entity:** "Sources of knowledge (Ask an Expert)" can be used as one of knowledge tools only if aligned with the goals.
2. **User interface design:** The design must be easy to use and adjustable when necessary. The employees are required to provide continuous feedback for the purposes of improvement and development of the tool.
3. **Recording users experience and knowledge:** This stage requires exerting the effort to convince the experienced employees who have knowledge that it is important to record the knowledge topics in which they are specialized. To encourage them to do so, the entity should

allocate incentive bonuses and publish success stories resulting from benefiting from the knowledge of a specific employee.

4. **Maintaining the system:** An employee or a specific organizational unit shall be appointed to monitor the use of the system and follow up the observations of users about it, so that it can be amended and developed to increase the effectiveness and efficiency.

Practical Case – Roads and Transport Authority (Dubai):

Roads and Transport Authority (RTA) in Dubai is developing integrated and sustainable systems of roads and transport. Due to its keenness on knowledge transfer and exchange, RTA launched the "Ask an Expert" initiative, through a group of internal experts will answer the questions posed by the employees in order to help them perform their job duties.

Experience has been classified, which can be benefited from as per the standard of expertise. Such experience is gained from a golden expert, as a result of his long experience in his expertise field, and another less experienced one, in order to direct the inquiring employee to define the expert who can help him meet his knowledge needs. The recipient can evaluate to what extent he benefited from the responses and answers, as the highly rated answers will be automatically archived, so that they can form a reference for anyone who needs information in the future.

Practical Case – Federal Authority for Government Human Resources (FAHR):

Believing in the importance of the transfer and dissemination of knowledge, the Federal Authority for Government Human Resources launched an initiative of "Ask a Legal Expert" on its website. This Initiative allows the public to ask the legal expert at FAHR about their questions, which he will answer. The answers will be published and posted after being classified according to their topic, for the purposes of easy access.

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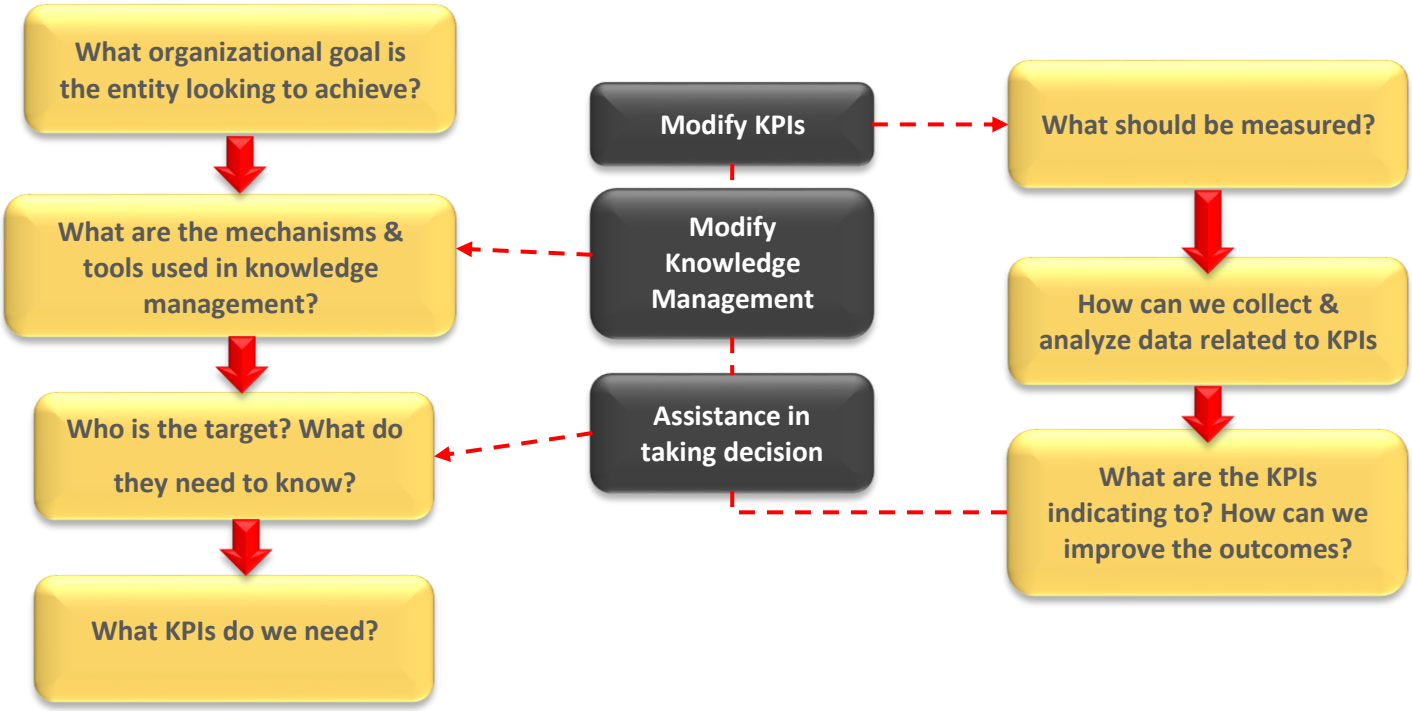
10. Measurement and Assessment of Knowledge Management

To ensure the success of efforts exerted in the field of knowledge management, it is necessary for the entity to set appropriate indicators to follow up the progress made and measure the relevant initiatives impact on the institutional or corporate performance results. However, the identification of these indicators requires an understanding of the needs of beneficiaries, what exactly is intended to be measured, as well as the extent of the results contribution to giving an added value, along achieving the strategic objectives of the entity.



Performance indicators results take the form of quantitative or qualitative measurements represented by a number, a percentage or a period. They help us predict the outputs of a process, and also support the entity in amending its track, with regard to achieving a certain goal. It should be noted that it is important when developing key performance indicators related to knowledge management that we shall take into account the extent of their usefulness in measuring return on investment, the barriers that prevent the transfer of

knowledge at the entity, the behavior and qualifications of the employees, as well as the maturity level of the concept of knowledge management at the entity.

Knowledge management indicators can be divided into two types, namely: Strategic and operational:

Indicator type	Example of the indicator
Strategic indicators	- Return on investment, in terms of knowledge and reading management initiatives - Employees retention rate (retention)
Operational indicators	**Indicators related to the activities:** - The number of tools and mechanisms used for knowledge management - The number of participants in the different knowledge management initiatives (such as knowledge sharing platforms, brainstorming sessions, etc.) - The number of documented processes / procedures - The rate of visits for the internal website of the entity (with respect to knowledge assets) **Indicators related to the operations and work procedures:** - Time used to respond to inquiries - The number of global standard certificates obtained by the entity - Information / data security rate - The level of accuracy of the content **Indicators related to the knowledge itself:** - The number of inquiries about the knowledge assets - The number of good practices developed - The number of active knowledge sharing platforms - Average time used to have access to knowledge assets **Indicators related to human resources:** - Percentage of employee satisfaction about the bonuses related to knowledge management - Number of learning and training programs held as compared to planned number **Indicators related tp the institutional work:** - Customers satisfaction rate

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11. Conclusion

Knowledge and reading management has become one of the basic issues that contribute to the success of entities and their ability to attract and retain distinct and innovative employees. Therefore, it is necessary that the senior management adopts this concept and ensures the harmonization of the relevant initiatives with the strategy of the entity. It is also important to study and understand the internal processes, culture of the entity, and the infrastructure of information technology, so that the knowledge management framework can be applied. In addition, action plans and performance indicators shall be developed and set, along with using the mechanisms and tools that help to create a working environment that encourages the production and acquisition of knowledge, as well as the storage and dissemination effectively.

It is worth mentioning that the application of the concept of knowledge and reading management takes time to become an integral part of the entity structure. Accordingly, the entities shall invest time and effort in disseminating awareness about it, motivating employees to actively participate, as well as rewarding the behaviors that enhance such concept.

Finally, we should not forget the enormous benefits that will be gained by the entity on the short and long term, which include, but not limited to, reducing costs, increasing the employee and customer satisfaction, improving the operations, and increasing the profits.

Annex "A"

Questionnaire Form of Assessment of Knowledge Management Maturity at the Entity

This questionnaire has been designed to help you assess the maturity level of the entity, in terms of the knowledge management, along with identifying the strengths and areas for improvement in this regard.

Please fill in the questionnaire by marking items from 1 to 5 according to the following:

1	2	3	4	5
The task is done in a very poor manner / the task is not done	The task is done in a poor manner	The task is done in a proper manner	The task is done in a good manner	The task is done in a very good manner

Serial No.	Criterion 1: Leadership	Mark
1.	The entity disseminated the strategic aspirations strongly associated with is vision, mission and objectives.	
2.	The entity has done the necessary arrangements with regard to knowledge management initiatives (for example, the formation of a team of knowledge management, the appointment of coordinators of knowledge, knowledge networks, quality improvement teams / practice communities, etc.).	
3.	Financial resources have been allocated for knowledge management initiatives.	
4.	The entity developed a policy to protect knowledge (for example, copyrights, patents, etc.).	
5.	The managers are the role-model regarding the dissemination of knowledge and cooperation. They spend a lot of time in the dissemination of information among their employees. They ensure the transmission of information among their employees and employees of other organizational units.	
6.	The department appreciates and rewards the practices related to improving performance, learning at the employee and entity level, dissemination of knowledge, as well as knowledge production and innovation.	
	Subtotal	
Serial No.	**Criterion 2: Processes**	**Mark**
7.	The entity defines its main and major potentials (important strategic potentials which give it a competitive advantage), and it has also harmonized them with its mission and strategic objectives.	
8.	The entity designs its work systems and main operations in a way ensuring the creation of value for customers and achieving excellence in performance.	
9.	When the processes are designed, the following factors will be taken into account: Technology, sources of knowledge published at the entity, flexibility and efficiency.	
10.	The entity has a system for the management of emergencies and unexpected events, in order to ensure not to disrupt operations, and if they happen, operations will not be disrupted.	
11.	The entity implements and manages the key business procedures to ensure the fulfillment of customer requirements and achieving the desired results.	
12.	The entity assesses the work procedures and improves them continuously in order to achieve better performance, improve services and keep pace with the latest developments.	
	Subtotal	

Serial No.	Criterion 3: Human Resources	Mark
13.	The education, vocational training and development program of the entity builds knowledge, skills and competencies of the employees, along with supporting the achievement of the overall objectives, and contributing to the achievement of higher performance.	
14.	The entity has a systematic program to guide new employees and includes informing them about the concept of knowledge management, its benefits and the adopted knowledge management system and its tools.	
15.	The entity has documented procedures and processes for (mentoring and coaching).	
16.	The entity owns a database for competencies of its employees.	
17.	Teams / small work groups are formed (such as quality sessions, work improvement teams, practice communities, etc.), which solve the work problems.	
	Subtotal	

Serial No.	Criterion 4: Technology	Mark
18.	The department has developed a technology infrastructure (such as the Internet, intranet, and website), as well as the relevant competencies to ensure the effectiveness of efforts related to knowledge management.	
19.	The technology infrastructure is consistent with knowledge management strategy of the entity	
21.	All employees are able to have access to the Internet / intranet and they have also e-mails.	
22.	The information displayed on the website / intranet is updated periodically.	
23.	The intranet (or any similar network) is used as the primary source of communication at the entity level, to support the efforts of knowledge and information transfer.	
	Subtotal	

Serial No.	Criterion 5: Processes	Mark
24.	The entity owns the methodology for the identification, production, storage, dissemination and application of knowledge.	
25.	The entity possesses knowledge database, through which the knowledge sources and resources at the level of the entity can be defined.	
26.	Knowledge related to tasks or projects completed is documented and disseminated.	
27.	Important knowledge possessed by employees leaving the entity shall be kept.	
28.	The entity disseminates the best practices and lessons learned at the level of the entity, so as to avoid duplication.	
29.	Benchmarking activities are conducted within and outside the entity, and results are used to improve the corporate performance and the production of new knowledge.	
	Subtotal	

Serial No.	Criterion 6: Learning and Innovation	Mark
30.	The entity clarifies and strengthens the values of learning and innovation continuously.	
31.	The entity considers the risks and making mistakes as opportunities for learning, so that they cannot be repeated continuously.	
32.	Teams whose members belong to different organizational units are formed, so to solve the problems at the entity level.	
33.	The employees feel that they are empowered, and feel that the entity appreciates their ideas and contributions.	
34.	The entity wants to test new tools and methods.	
35.	There are incentives available for the employees to work together and disseminate knowledge and information.	
	Subtotal	

Serial No.	Criterion 7: Knowledge Management Outputs	Mark
36.	The entity owns track record in the successful application of knowledge management initiatives and other change initiatives.	
37.	There are standards to evaluate the impact of contributions and knowledge management initiatives on the entity.	
38.	The entity has achieved higher productivity rates through cost savings, improved efficiency and optimal use of resources (including knowledge), along with improving the decision-making process, and increasing the rate of innovation.	
39.	The entity profitability increased by improving the productivity, quality and customer satisfaction.	
40.	The quality of products / services improved as a result of the application of knowledge, in order to improve business processes or customer relationships.	
41.	The entity maintained its growth due to the increased productivity, profitability and quality of service.	
	Subtotal	

Instructions:

- Write your subtotal for each criterion in box (1).
- Compare each subtotal with the maximum points located in the opposite side in box (2).
- Collect all subtotals at the end of box (1) and compare them with the maximum points at the end of box (2).
- Order the criteria from "1" till "7" in box (3), so that (1) is placed at the highest ranking and (7) is the lowest.
- Compare the total achieved by your organization with the current readiness levels of knowledge management.

	(1)		(2)	(3)
Criterion	**Marks related to criteria according to the assessment**		**The maximum points**	**Order (1 – 7) [1 = highest, 7 = lowest]**
1	**Criterion 1: Leadership** (Questions from 1 to 6)		30	
2	**Criterion 2: Processes** (Questions from 7 to 12)		30	
3	**Criterion 3: Human Resources** (Questions from 13 to 18)		30	
4	**Criterion 4: Technology** (Questions from 19 to 24)		30	
5	**Criterion 5: Processes related to knowledge** (Questions from 25 to 30)		30	
6	**Criterion 6: Learning and Innovation** (Questions from 31 to 36)		30	
7	**Criterion 7: Knowledge Management Outputs** (Questions from 37 to 42)		30	
		Gross Total	**210**	

Entity maturity level related to knowledge management:

(Most mature)

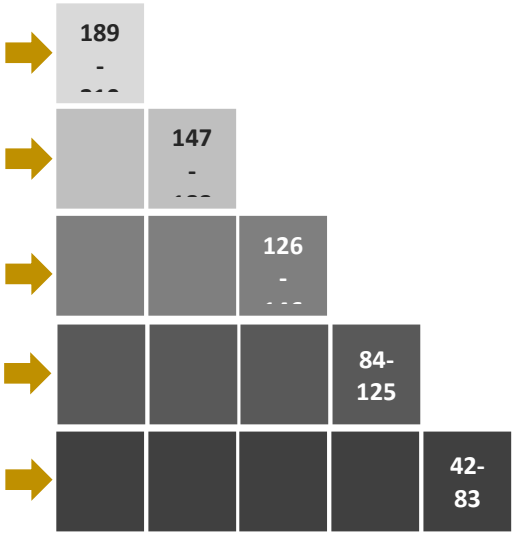
The Knowledge Management is across the entity

The Knowledge Management is being evaluated continuesly for improvement purpose

The Knowledge Management is being practiced in some ways

The entity has realized its need for adopting Knowledge Management and it has proposed an experimental project for KM

The entity is not aware of the Knowledge Management concept and its importance in improving the productivity & competition



(Least mature)

Total	The level of entity readiness for the knowledge management	Leadership	Processes	Human Resources	Technology	Processes related to knowledge	Learning and Innovation	Knowledge Management Outputs
189 – 210	**Fifth level:** The knowledge management is prevalent at the entity.	The senior management represents the role-model regarding the dissemination of knowledge and cooperation. The entity achieves the	There are excellent systematic processes and there are no gaps.	Employees are looking for opportunities related to the presence of people, whom they may benefit from their knowledge, and they volunteer to	There are effective links between employees and technology. There are strong partnerships between organizational units and the representatives	There are effective processes for the management of quality at the entity. Processes / procedures have undergone several	The assessment process is carried out systematically, and there are continuous improvements, learning processes and innovation at the entity.	The entity maintains excellent performance levels and shows positive performance patterns.

		added value through institutional knowledge.		provide this knowledge free of charge.	of knowledge at the entity and the employees.	stages of review and amendment.		

Total	The level of entity readiness for the knowledge management	Leadership	Processes	Human Resources	Technology	Processes related to knowledge	Learning and Innovation	Knowledge Management Outputs
147 – 188	**Fourth level:** Knowledge management is continuously assessed for the purpose of continuous improvement.	The department reviews the corporate performance on an ongoing basis, and the results are also used to enhance the trend of the entity, improve services and develop new services.	Systematic processes improved and became more efficient.	Mechanisms of knowledge dissemination and cooperation are assessed on a regular basis for the purpose of continuous improvement.	The technology infrastructure is reviewed on an ongoing basis, so as to ensure its alignment with the knowledge management strategy and improve it accordingly.	The processes are reviewed on an ongoing basis and are compared, as per benchmarking, with other entities for the purposes of continuous improvement. Operations / processes have been modified at least once.	Administrative tools are used, such assessment, systematic improvement and institutional learning (including the innovation) on a periodic basis. The amendment is made as a result of analysis and knowledge sharing at the entity level.	The institutional performance results are ranging between good and excellent, and maintain a positive patterns over time. There are aspects of leadership and very good performance, as compared relatively to standard benchmarking.
126 – 146	**Third level:** Knowledge management is practised in some aspects.	The department leads the efforts related to the implementation of knowledge management. There is a system of reward and motivation.	There are systematic processes and they are better activated over time.	The employees share knowledge even more outside their organizational units. There is growing cooperation between organizational units in the implementation of activities and projects.	Increased use of information technology. A large number of employees has the ability to have access to the Internet / intranet. Knowledge and information needed by employees can be accessed to perform their duties at all times and in all places.	There are systematic knowledge operations at the entity level. Employees began using the knowledge gained through participation and dissemination for the purposes of improving the methods related to undertaking their duties.	There is a systematic process for evaluation and improvement, and there are some practices related to the institutional learning, including innovation, for the purpose of improving the efficiency of key processes.	The entity shows good performance results and they include some positive patterns. The entity shows relatively good performance as compared to benchmarking.

84 – 125	**Second level:** The entity has started the following: - Awareness of the need for knowledge management. - Launching a pilot project for knowledge management.	A vision and a strategy for knowledge were developed in order to guide the entity towards knowledge management initiatives. A coordinator has been identified and appointed to support knowledge management activities, and a team was formed to coordinate and arrange these activities.	Systematic operations have initially appeared	Knowledge is voluntarily disseminated, but only when an employee is asked within the scope of his/her organizational unit. The employees, including managers, are trained on knowledge management techniques.	The process of understanding the role of information technology is executed in knowledge management. Technology infrastructure is established in line with the strategic objectives. Competencies of information technology team members are developed.	Developing and implementing processes for knowledge production, organization, dissemination and application have been started.	A systematic way to evaluate and improve key processes has initially arisen.	There are few good performance results and there are some negative performance patterns. Collection of standard data has been started to analyze and compare the performance.
42 - 83	**First level:** The entity is not aware of the essence of knowledge management and does not its importance in improving productivity and competitiveness.	The leadership is not aware of or not convinced of the importance of knowledge management and its value in the achievement of the entity's mission. The support provided by the senior leadership for the knowledge management initiatives is either weak or not available.	The processes related to the design and delivery of services, as well as works and support are not systematic.	The employees extensively protect knowledge owned by them or they otherwise make it available while hesitating when asked to do so. The dissemination of knowledge, if any, is limited within the limited range of employees. The individual learning is rarely converted into institutional or corporate learning. Knowledge is lost when employees leave the entity.	Limited use of the computer, intranet / Internet, or other networks for the purpose of improving communication, sharing information and building databases, etc. (for the entities which have existing infrastructure for information technology). "Storytelling" or the delivery of information and knowledge verbally is very common.	The employees repeat the work or duplication in efforts may occur continuously. Mistakes are committed continuously twice or more.	The response of the entity to problems is not proactive. Organizational units are independently working at the entity and there is no harmonization at the entity level.	The entity does not keep the results related to important performance aspects to achieve the mission of the entity, including the information collected for the purposes of benchmarking.

Annex "B"

FAQ

We present below a number of the most common questions with their answers in detail in the Guide.

Question 1: Is there difference between "data", "information" and "knowledge"?

Yes. There is a difference between the three concepts:

- "– Data": They are facts, measurements or reviews that can be obtained by observation or by search and registration.
- "– Information": Data processed through its classification, organization and analysis, so as to be used for specific purposes in accordance with the context in which it appears.
- "– Knowledge": Is the result of blending the information with personal experience and perceptions.

Question 2: What are the types of knowledge?

Knowledge is divided into the following types:

1. "Tacit Knowledge": Knowledge that is existing in the minds of people and is difficult to be transferred from one person to another through writing or verbal expression.
2. "Embedded Knowledge": Knowledge inherent in the systems and routines "Routines" at the entity. It is shaped by the relationships between information technology and the functional roles, official procedures and routines within the institutional system.
3. "Explicit Knowledge": Knowledge that can be identified and expressed in words, numbers, or symbols, and can be stored electronically or in writing, in addition to the ability to publish and refer to it easily.

Question 3: What are the stages of knowledge development cycle?

Knowledge Development Cycle is based on social interaction between staff and stakeholders, so that new knowledge appears which can be shared and transferred continuously. The Cycle consists of the following stages:

1. Knowledge production stage: During which tacit knowledge is created.

2. Knowledge conversion stage: During which the tacit knowledge is converted into explicit knowledge.
3. Different knowledge integration stage: During which new knowledge is produced by blending both types of knowledge; explicit and tacit.

Question 4: What are the sources of knowledge?

Knowledge sources are divided into:

1. Internal knowledge sources
2. External knowledge sources

Question 5: What are the components of knowledge management strategy?

The knowledge management strategy includes the following components:

- Vision and mission of the entity concerning the knowledge management;
- Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT)[9]
- Strategic objectives of knowledge management;
- Initiatives related to knowledge management; and
- Action plans related to knowledge management.

Question 6: What are the tools and methods of knowledge management?

There are various tools and methods for knowledge management, including, for example:

- Tools and Methods of Knowledge Production / Acquisition
  - "Knowledge Café" (including brainstorming sessions and laboratories of innovation)
  - Knowledge Sharing Platforms
  - Reading
  - "Mentoring Program"
- Mechanisms of Storage and Dissemination:
  - Knowledge Assets Management Systems / Archiving Systems
  - Expertise Sources ("Ask an Expert")

Annex "C"

References

Books:

- *A Guide to Managing Knowledge: Turning Information into Capability*
  (Published in 2013 by the Public Sector Commission, Government of Western Australia)
- *Knowledge Management for the Publis Sector*
  (Published in 2013 by the Asian Productivity Organization)
- *Knowledge Management Initiatives in Singapore* - Volume No.: 12
  (Authors: Margaret Tan and Madanmohan Rao)
- *Knowledge Management Tools and Techniques Manual*
  (Published in 2010 by the Asian Produtivity Organization)
- *Knowledge Management: Facilitators' Guide*
  (Published in 2009 by the Asian Productivity Organization)

Website:

- http://www.dubaicourts.gov.ae/jimage/files/Knowledge_Management_AR_2012.pdf
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Laws, guides and resolutions:

- Federal Law Decree No. 18 / 2016 regarding the reading
- Guide of specifications of open data for the government entities in the United Arab Emirates (issued by the Telecommunications Regulatory Authority, Second Edition, 2016).
- Cabinet's resolution No. 21 / 2016 regarding the regulation of information security in the federal entities.