

Processes and models for applying knowledge management in business organizations

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Abstract:

This research studies the requirements that must be met to apply knowledge Management. It also includes mechanisms for its application process and some models presented by researchers regarding approaches to apply it. In the Era of Digital Revolution Knowledge Management is considered as a strategic approach to integrate the knowledge-based economy system, and developing the organization's knowledge capital. In this research We used the descriptive analytical approach; we reached a number of results, the most important concerns the central role of the applying of knowledge management as a basic pillar for achieving the transition to the modern model based on the value of knowledge. We have also reached the importance of accurate understanding of the environment in which the organization operates and the requirements and changes required for the application of knowledge management, as well as knowing the most appropriate model for the organization to achieve the highest possible value for its own intellectual capital.

Keywords: Knowledge; Knowledge management; Knowledge Capital, Knowledge-based economy; Digital transformation; innovation.

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1. INTRODUCTION

What distinguishes the era of the knowledge economy is the change in the concept of value and its transformation from the tangible material concept related to goods and products to the intangible concept related to knowledge and information possessed by organizations and individuals, where controlling and managing knowledge as an essential resource for organizations has become the key to the success of organizations as this relates to how it is exploited and managed. For its knowledge assets and providing what it needs from various sources, whether internal or external, the organization benefits from this knowledge by processing, storing, disseminating, distributing, applying, renewing and generating it. In this study we will discuss the basic concepts and elements on which both the concept of knowledge with its various ramifications and knowledge management are based, trying to address the foundations and trends. Intellectual findings reached by researchers in the fields of knowledge and knowledge management.

The question of the study

What are the requirements, mechanisms and models for implementing knowledge management?

Hypothesis

Knowledge management is a modern administrative method that aims to raise the value of knowledge capital. Its application requires a set of human, technological and organizational requirements, it focus on mechanisms based on learning, training and qualification and are applied according to models that are compatible with the organization's environment and its cognitive capabilities.

The Objective of the study:

- Clarifying the most important concepts related to knowledge management.
- Highlighting the main motivations for adopting and applying knowledge management and knowing the most important requirements, mechanisms and models for its application.
- Highlighting the importance and impact of applying knowledge management.

The importance of the study

- Its importance comes from the importance of knowledge and its management for raising the value of knowledge and intangible assets for the organisations.
- Contributing to enriching the field of research related to the mechanisms, models and requirements for applying knowledge management.
- presenting the importance of the integration of the organizations into the knowledge-based economy.

Methodology

In this research we used the analytic descriptive method to analyse the relation between different elements of the study, its aspects and dimensions, in order to achieve the understanding of the phenomena subject of this study and the solutions to the problematic treated by this research.

Research Plan

1. Introduction
2. The nature of knowledge.
3. Introduction to knowledge management.
4. Basics of applying knowledge management.
5. Conclusion.
6. Recommendations.

2. The nature of knowledge:

We study in this section the nature of knowledge notions liked to it.

2.1 Knowledge concept:

knowledge concept is a fundamental concept in the Era of Knowledge Economy.

2.1.1 The definition of knowledge: Understanding knowledge requires familiarity with some basic concepts and the relationship between them, namely data, information and knowledge

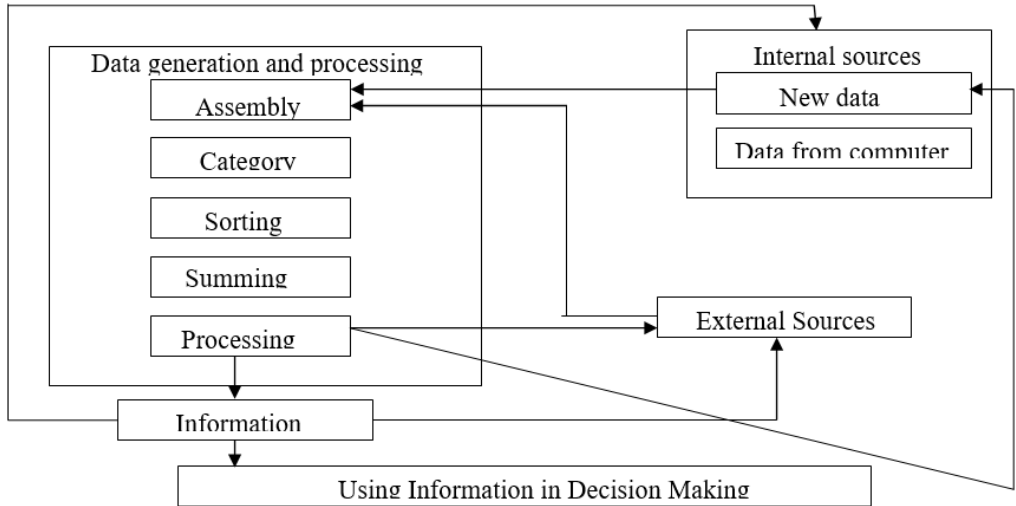
A. Data: Its singular statement is the raw material of information.

According to Wiig are also unorganized notes and unprocessed and examined facts that appear in various forms, which may be numbers, letters, words, signs, or images, without any context or organization. They are raw materials and facts that are of no value unless they are transformed into understandable and useful information (Alyan, 2012:37).

B. Information:

- According to Harris & Henderson Information is data that has been evaluated, organized, and interpreted for use in the sense that it has meaning, that is, it helps transform ideas and opinions into actions and behaviors that lead to continuous progress. (Ghadban, 2018: 69)

Figure N° (1): Data life cycle



Source: Alyan, Rabhi Mustafa (2012): **Knowledge Management**, Dar Al-Safaa for Publishing and Distribution, Amman, P. 41.

B. 1 Characteristics of information and dimensions of its quality: There are many important characteristics of information:

- ✓ Timing: The right timing.
- ✓ Precision: Correct, error-free.
- ✓ Validity: Suitability to the needs of beneficiaries.
- ✓ Flexibility: Adaptability to meet different needs.
- ✓ Clarity: Free from ambiguity.
- ✓ Reviewability: Agreement between different beneficiaries for review.
- ✓ Objectivity: Lack of bias.
- ✓ Accessibility: Easy and quick to obtain.
- ✓ Measurability: Possibility of quantitative measurement.
- ✓ Holism: The degree to which it covers the needs of beneficiaries. (Alyan, 2012: 48-50)

C. Knowledge (Knowledge): Many opinions of researchers on the concept of knowledge

Table N° (01): Concepts of knowledge from the perspective of a number of researchers

Concept of knowledge	Researcher
According to (1991Goldman: It is the justification of true beliefs	(Firstone & McElory2011, :03)
It is the direct result of understanding the content of information, which adds value to it and can contribute to increasing the effectiveness of decision-making	(Wen,2009:363-367)
Wikipedia definition: It is a description of a state or process of some aspect of life for people or a group that is prepared for it.	http://ar.m.wikipedia.org website:

Source: (accomplished by the author).

- The difference between data, information and knowledge:
(Table N° 02)

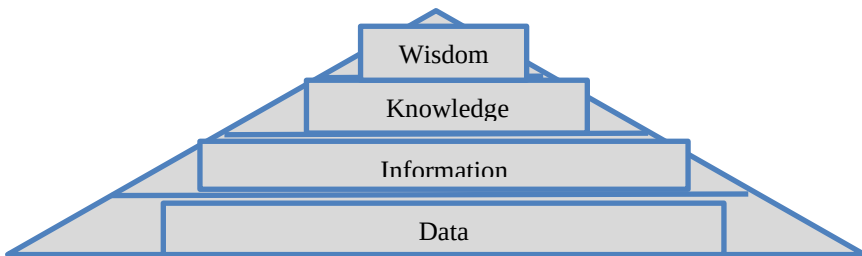
Table N° (02) The basic differences between data and information

the information	data	field
Organized within an organizational structure	Irregular in an organizational structure	Ranking
Value is determined by determining the factors of value and influence on the value of information	Unspecified value	value
It is used at both the formal and informal levels	It is not used at the official level	Usage
Source specific	Many sources	Source
High	Low	Precision
Outputs	Input	location (in system)
Relatively small data size	Very big	the size

Source: Alyan, Rabhi Mustafa (2012): **Knowledge Management**, Dar Al-Safaa for Publishing and Distribution, Amman, P. 45.

D. wisdom: It is the embodiment of intelligence and represents the pinnacle of the cognitive pyramid, confronting the most complex processes practiced by the human mind to distil knowledge and investigate it to the best results represented by creativity and optimal exploitation of resources with best results for less cost, time, And distance. (Alyan, 2012: 70)

Figure N° (3): The pyramid of knowledge



Source: Alyan, Rabhi Mustafa (2012): **Knowledge Management**, Dar Al-Safaa for Publishing and Distribution, Amman, P. 38.

Table N° (03): Different definitions of data, information and knowledge

Knowledge	Information	Data	Researcher
Experiences, values, insight, contextual information.	Messages aimed to Change the recipient's outlook.	Different facts.	Davenport & Prusak, 1998
Texts that answer the questions (why? and how?).	Texts that answer the questions (Who? When? What? Or Where?).	Texts that do not answer questions related to a specific form.	Quigley & Debons, 1999
Valuable information from the human mind.	Linked and meaningful data	Simple notes	Davenport, 1997
Being able to define that meaning.	Meaningful data.	Unexplained symbols.	Spek & Spijkervet, 1997

Correct interpretations and beliefs.	Meaningful data.	Facts and messages.	Choo, Deltor & Turnbull, 2000
Commitments and beliefs created from these messages.	Flow of meaningful messages.		Nonaka & Takeuchi, 1995
Facts, beliefs, viewpoints, judgments, know-how and methodologies.	Facts organized to describe a particular situation or circumstance.		Wiig, 1993

Source: Ben Ghida, Sarah (2014): The impact of training on the performance of human resources in light of the knowledge economy - a case study of the institution of building fabricated metal structures and the Oum El Bouaghi unit -, Master's thesis, **Ben M'hidi University, Oum El Bouaghi, Algeria**, P. 18.

2.2 Characteristics and types of knowledge:

knowledge is characterised by some characteristics and it has different types as follows.

2.2.1 Characteristics of knowledge:

- Knowledge can be generated(Al-jamous, 2013:35)
- Knowledge can die (Hassan, 2008: 29)
- Knowledge can be possessed (Al-Malkawi, 2007:37)
- Knowledge can be stored (Najm, 2007:33)
- Knowledge can be classified (Al-jamous, 2013:36)
- Knowledge can be shared (Al-Malkawi, 2007:38)
- Knowledge is inexhaustible (Hassan, 2008:31)
- Knowledge is instantaneous(Ghadban, 2018: 77)

2. 2. 2 types of knowledge:

Table N° (04): types of knowledge according to some researchers

Researcher	Categories
Quinin et al.(1996,72), similarities to Sackmann (1992)	Knowledge thinking (what do I know?), advanced skills (knowing how), systems understanding (knowing why), and self-creativity (nurturing your why).
Heideloff /Baitech (1998, 69) similarities to cognitive sciences	Fact knowledge (about things), contingent knowledge (about events), and procedural knowledge (about relationships).
Polanyi (1966,4ff)	Implicit knowledge and explicit knowledge
Collins(1993,96ff) classifies knowledge according to its location	Knowledge of mentality (mind), knowledge of the body (body), knowledge of culture (culture), and symbolic knowledge (symbols).
Zack (1999b, 133f) categorizes industry knowledge.	Core knowledge, advanced knowledge, and creative knowledge.

Source: Al-Nasser: Amer Abdel-Razzaq (2014): **Knowledge Management within the Framework of Business Intelligence Systems**, Al-Yazouri Publishing, Amman, P.25-26.

Table N° (05): Comparison between tacit knowledge and explicit knowledge

Characteristics of explicit knowledge	Characteristics of tacit knowledge
The ability to disseminate, produce, access, and reapply in organizations.	Adaptation ability to deal with exceptional and new conditions.
Ability to teach and train.	Experience, know how, why, care for what.
The ability to organize, synthesize, and translate the vision into a message, and then into operating guidelines.	Ability to collaborate, share vision, and transmit culture.
Transfer of knowledge through goods, services and documented processes.	Training and guidance to transfer experiential knowledge from one person to another, on a face-to-face basis.

Source: Al-Nasser: Amer Abdel-Razzaq (2014): **Knowledge Management within the Framework of Business Intelligence Systems**, Al-Yazouri Publishing, Amman, P. 27.

2. 3 Sources of knowledge and their maps:

Knowledge has internal and external sources, and it has maps known as knowledge maps.

2. 3. 1 Sources of knowledge:

A. Internal sources of knowledge:

A. 1 People or individuals of the organization: Three types of individuals work with knowledge in the internal environment of the organization (Ghadban, 2018: 82-84):

- * **Knowledge strategists:** They are knowledge-based strategy and competition experts.
- * **Knowledge professionals:** They deal with knowledge as a subject. This category is the one that comprehends the cognitive content and is the expert in obtaining and assimilating it with the effective method for generating and working in various fields.
- * **Knowledge workers:** They work in the field of knowledge in order to provide support and support factors for knowledge professionals.

A. 2 Books and recorded documents: Much of the knowledge in books and documents is available to everyone, such as patents. (Ghadban, 2018: 82)

B. External sources of knowledge: These sources were limited to the following elements:

- **customers:** Customers are considered a renewable source of knowledge, and the source of knowledge of the needs that develop products
- **Suppliers:** They are the most important primary source of knowledge related to the industrial market, resources and their specifications.

- **Competitors:** The most influential source because they seek to make their knowledge difficult to imitate by making their knowledge rooted.
- **Partners:** A source that provides, in a ready and quick manner, the knowledge and experience the organization lacks through partnership and alliance.
- **Brokers (distributors):** An important and essential source of knowledge, especially since they are the closest to the market elements.
- **New workers:** New graduates either have recent knowledge, or are workers with experience. (Ghadban, 2018: 85)

2. 3. 2 Knowledge maps:

A. The concept of knowledge map: Knowledge maps are treatments of materials that accompany other information and knowledge.

According to what was known, there are three types of knowledge maps (Al-Aali, 2005: 29) :

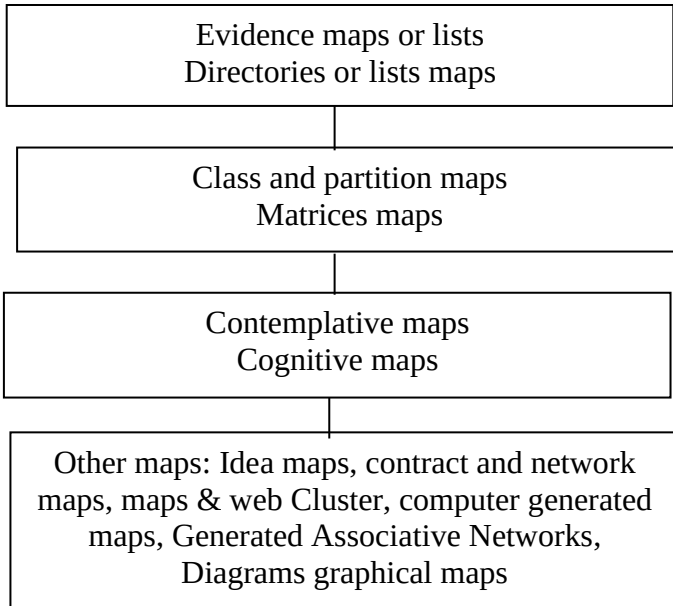
- Documented cartographic knowledge materials, such as websites sections, databases.....etc.
- Maps of individuals and groups in their work sites of expertise.
- Maps of quoted and learned lessons attributed to their original reports and stories taken.

B. Knowledge map classifications: It can be classified in two convenient ways:

form of knowledge (Form), Their purpose (Purpose). (Alian, 2012: 118)

C. Format and uses of maps: Maps: evidence and lists, matrices and divisions, speculative, other (Al-Aali, 2005: 30), (Figure No. (05)).

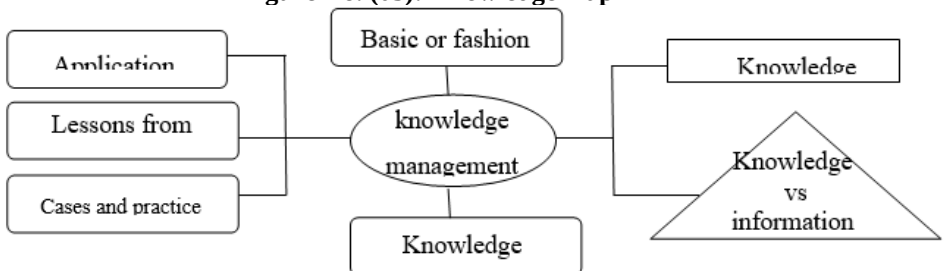
Figure N° (04): Different types of knowledge maps



Source: Alyan, Rabhi Mustafa (2012): **Knowledge Management**, Dar Al-Safaa for Publishing and Distribution, Amman, P. 119.

D. Elements of the knowledge map: The map elements consist of the following (Fig 05):

Figure No. (05): Knowledge map



Source: Al-Aali, Abdel Sattar et al. (2005): **Introduction to Knowledge Management**, Al Masirah Publishing and Distribution, Amman, P. 33.

- **Fundamental or fashionable:** Explaining the reason for the interest in it now, many specialists in the field of knowledge, such as (Kermally 2002), answered that knowledge is basic and not a fad, as it is one of the intangible basics in the organization's operations, but before that, knowledge management was seen as a fad until the late nineties became essential.

- **Knowledge agenda:** It consists of knowledge teams and their bases, such as search engines and exploration tools that artificial intelligence has contributed to clarifying, in addition to the visual tools used in financial markets, collaboration tools, video conferences, and knowledge centers that perform multiple tasks, such as defining the facility's library.

- **Knowledge:** Opposite of information: To differentiate between knowledge and information, you must start with the basis, which is data, which is abstract facts, while information is classified and understandable data resulting from the data processing process.

- **Knowledge cycle:** In general, it consists of the following stages, which begin with the formation and definition of knowledge, then collecting it, then classifying it, then organizing and storing it, then sharing and publishing, and finally accessing and using, and so.

- **Knowledge leadership:** Knowledge leaders have qualities that must be present, such as a clear vision and a valued position on sharing best practice, innovation and reuse of knowledge, developing intellectual capabilities and assets, and enhancing communications.

- **Applications:** Many researchers have pointed out the necessity of applying knowledge management even in companies in order for it to bear fruit. Application is what enhances knowledge and enables competition.

- **Cases and practices:** Knowledge management has been applied in many companies, the most famous of which is Skandia Life, which was the first company to include intellectual property and intangible assets in its budgets, and concluded with the following equation (information technology).+Intellectual capital+Values = smart organization) knowing that intellectual capital = customer capital+Human capital+Structural capital) also applied by the company (Glaxo Welcome) by building a knowledge architecture network through team skills, learning, core capabilities, strategy, communications, people and process improvement. (Al-Aali, 2005: 33-36):

3. Basics of knowledge management:

Knowledge management is a new entrance of administration based on knowledge.

3.1 The concept of knowledge management: Table No. (07)

Table No. (07): Different definitions of knowledge management

Definition	Ref
It is a set of different, precisely defined approaches and processes for searching for critical positive and negative knowledge, managing it (organizing it), and employing it in various types of activities, defining new strategies and products, improving human resources management, as well as achieving a number of pressing goals.	(Wiig, 1993: 16)
It is the work required to obtain the best outputs from knowledge sources	(Fernandez & Sabherwal,2010:04)

Source: (accomplished by the author)

3.1.2 Importance of knowledge management: It derives its importance from that:

- It allows the organization to identify, document, develop, share, apply and evaluate K.

- A tool for contemporary institutions to invest their intellectual capital.
- It supports the organization's efforts to benefit from all tangible and intangible assets.
- It enhances the organization's ability to maintain and improve its systemic performance.
- provides the opportunity to obtain permanent competitive advantage. (Ghadban, 2018: 92)

3. 2 Objectives of knowledge management:

- ❖ Capturing knowledge from its sources, storing it, and then reusing it.
- ❖ Relying to attract greater intellectual capital to find solutions to organization's problems.
- ❖ Creating an organizational environment that encourages to share knowledge.
- ❖ Identifying core knowledge and how to access and protect it.
- ❖ Reusing and maximizing knowledge. (Al-Kubaisi, 2005:44)

3. 3 areas of knowledge management: According to Wiig, there are four main areas that should be managed together in a good way, as shown in Figure No. (8), as these areas are overlapping and each one affects the other and are represented as follows (Elayan, 2012: 198):

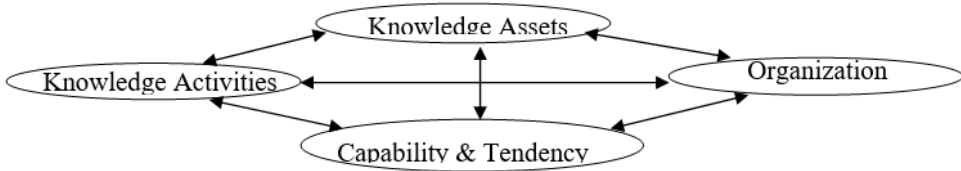
-Area of knowledge assets: It contains expertise, experiences, skills, skills and competencies.

-Field of knowledge activities: It contains the processes of collection, generation, construction, transmission, monitoring, use and evaluation.

- The field of abilities and inclinations: The capabilities and inclinations of individuals, as well as the organization's capabilities to build and use knowledge.

- The field of the organization: It includes: organization's goals, strategies, culture, practices.

Figure N° (07): Fields of knowledge management.



Source: WIIG, Karl MK, **Knowledge Management the Central Management Focus for Intelligent Acting Organizations-**, Schema press E&D LTD, Arlington, 1994, USA, P. 29.

4. Applying knowledge management: requirements, models, and strategies:

The implementation of knowledge management is important for modern organisations.

4.1 Knowledge management requirements and models:

There are a set of requirements for applying knowledge management, as follows:

4.1.1 Knowledge management requirements:

The application of knowledge management need some requirements as follows:

A. Providing human resources: It is considered one of the most important components on which the success of knowledge management depends in achieving its goals (the organization), and these individuals are known as knowledge individuals (knowledge managers, knowledge makers and knowledge workers), who are responsible for carrying out the activities necessary to generate, preserve and distribute knowledge, in addition to preparing the software for that. (Al-Malkawi, 2007:85), organization must invest in its human resources to transform their knowledge, skills and experiences into resources that reflect their value to the

organization and through their management it can maximize its assets. (Rallid, & Othmani, 2023, p. 9-10),

B. Organizational leadership style: In general, knowledge management requires an unusual style of leadership to achieve a high level of productivity, as leaders are no longer described as bosses, but rather as trained coordinators and facilitators. (Buffalo, 2013:204), then the appropriate leader for knowledge management must be characterized by three basic qualities: the ability to clarify the vision for others and represent a role model for them, in addition to the ability to link this vision to more than one content that concerns the organization and through which it operates. Among the characteristics of knowledge leaders are the following (Al-Jamous, 2013:205):

- * Having a clear vision about the knowledge and knowledge management program.
- * They support and motivate knowledge makers about the knowledge programme.
- * Possessing a holistic view in the organizational, technological and strategic areas.
- * They believe on the success of knowledge (despite its cost, difficult measure its benefits).

C. Organizational Chart: It is characterized by sufficient flexibility To be possible Knowledge individuals unleash their creativity and work freely to discover, generate and exchange knowledge. Here is an indication of the positive impact on how knowledge is obtained, controlled, managed, stored, developed and reused, and the identification and renewal of procedures, means, facilities and knowledge management processes to be effective and efficient to gain meaningful economic value. (Al-Malkawi, 2007:85)

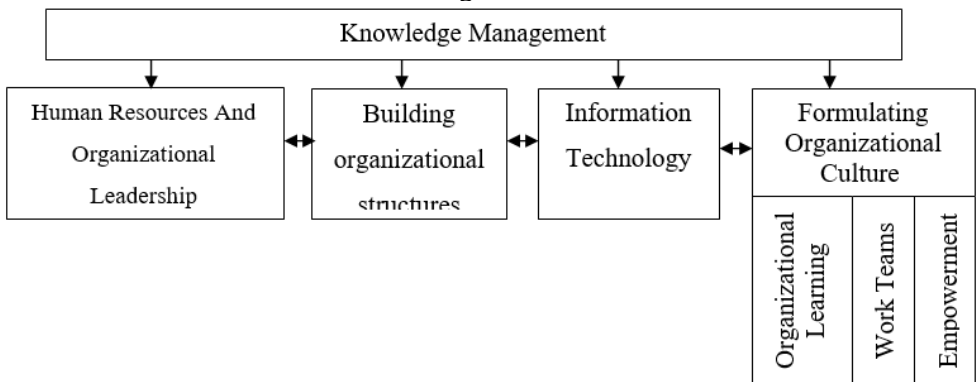
D. Technology-related infrastructure (technology): The process of implementing the knowledge management process in the organization requires providing the technology infrastructure,

which is the computer and related software, such as software, electronic search engines, and various means related to that, and here we specifically refer to information technology and information systems. (Al-Malkawi, 2007:85)

E. Organizational culture: build an organizational culture that includes the following:

- Team strategy Team Work Strategy: Considering work teams as a work method.
- Organizational learning strategy Learning Organization Strategy: Relying on a set of processes and activities with the aim of improving its competitive ability, developing itself, activating its relationships with its environment, and adapting to it.
- Employee empowerment strategy improvement Strategy: Giving them the independence to do their work. (Al-jamous, 2013: 178)

Figure N° (08): Basic requirements for implementing knowledge management

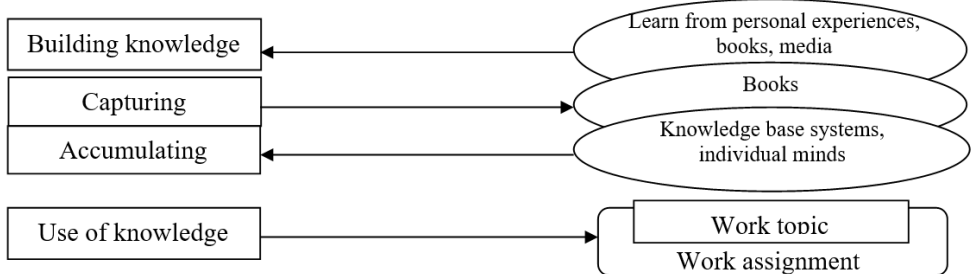


Source (adapted): Al-Jamous, Abdul Rahman (2013): **Knowledge Management in Business Organizations and its Relationship to Modern Administrative Approaches**, Dar Wael for Publishing and Distribution, , Amman, P. 173.

4. 1. 2 Knowledge management models: researchers have presented many models for applying knowledge management. We address two models:

A. Wiig's Model: He presented another model that achieves four basic goals:(Buran, 2016: 68): Building knowledge; knowledge retention; knowledge accumulation; Use of knowledge. In this model, the basic functions in various areas of building and using knowledge are integrated and unified. The model focuses on identifying and linking the functions and activities performed by the organization and individuals to produce products and services.

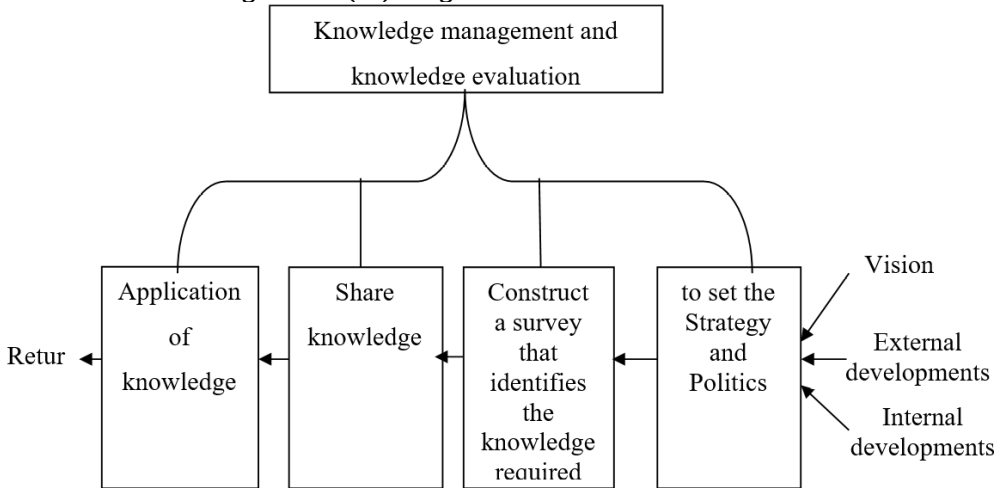
Figure N° (09): Wiig's knowledge management model.



Source: WIIG, Karl MK, **Knowledge Management the -Thinking about Thinking- (How People And Organizations Create, Represent, And Use Knowledge)**, Schema press E&D LTD, Arlington, 1994, USA, P. 56.

B. Cognitive value chain model: Bots & Brujiin: according to Potts Bots and Brujiin The best ways to manage and evaluate knowledge is through the knowledge value chain, in which the effectiveness of each step of the cognitive process is evaluated, and it is considered effective and successful if these activities are performed well (Al-Aloul, 2011: 72).

Figure No. (10): Cognitive value chain.

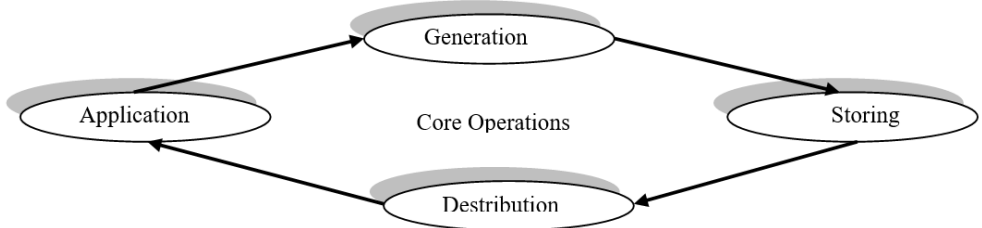


Source: Alyan, Rabhi Mustafa (2012): **Knowledge Management**, Dar Al-Safaa for Publishing and Distribution, Amman, P.235.

This model is based on dealing with knowledge according to an analytical technical concept or the user model, as this organization is considered progressive and contradictory. The knowledge evaluation process occurs by determining how knowledge management keeps pace with each perspective at all stages, and evaluating the steps that would increase work efficiency. (Al-Aloul, 2011: 72)

4.2 Knowledge management processes: In this study, we will focus on four fundamental processes as they are the most comprehensive and upon which many researchers have agreed, as shown in Figure No. (Al-Kubaisi, 2005: 62), but before discussing these fundamental processes, we will point out two equally necessary processes: diagnosis and acquisition of knowledge. (Shahid, 2011: 29)

Figure No. (11): The core processes of knowledge.



Source: Al-Kubaisi, Salah El-Din (2005): **Knowledge Management**, Arab Organization for Administrative Development, Cairo, Egypt, P. 62.

4.2.1 Diagnosis of knowledge: The process of accessing the required knowledge is considered one of the most difficult and permanent obstacles in the life of the organization, and therefore diagnosing knowledge is extremely important because its success depends on the accuracy of the diagnosis that is provided regarding knowledge, as its absence represents the core of the problem in knowledge organizations, and therefore if organizations want to recruit their knowledge capabilities, they must It must work in two directions, the first of which is to know its internal knowledge, whether the capabilities of the organization as a whole or its individuals, their experiences, and various information and experiences that can benefit the organization and its goals, in addition to researching the external sources of the organization, that is, in its surrounding knowledge environment, which should be monitored and Defining it precisely in a way that is compatible with the organization's goals and interests, and working to link the organization with it (Shahid, 2011:29).

4. 2. 2 Acquiring knowledge: The process of acquiring knowledge is represented by the mechanisms related to finding and creating knowledge in order to retain it, then distribute it and use it. After the stage of cognitive diagnosis comes the process of acquiring knowledge from its various sources. It may be internal, such as

knowledge repositories, or through sharing experiences, skills, and practices, or attending conferences, seminars, dialogue, and communication between different individuals. And groups within the organization, such as employees, work groups, the manager, etc. This is related to basic data, such as financial and economic data, through which knowledge is transferred from implicit to explicit and vice versa. The result of this is organizational cognitive creativity, as it may be from external sources that are committed to either bringing it, preparing it, and participating in it, and in doing so it depends on modern means and technology and the facilities it provides, such as video conferences. The World Wide Web, the Internet, etc., and the organization also obtains them through marketing intelligence, analysis of industry research, academic research, and from experts and specialists in the field of its industry, as well as through the integration and attraction of new workers. (Hassan, 2008:27)

4. 2. 3 generating: The process of generating organizational knowledge includes the process of developing new content or replacing existing content with regard to both tacit and explicit knowledge and can be generated through social and collaborative processes or through individual learning processes, as the model emerges.(SECI) by: (Takeuchi Nonaka &), which includes concepts related to the places of knowledge generation, cognitive assets, the continuous interaction between tacit and explicit knowledge, and the growth of the spiral flow of knowledge when it moves between the levels of the individual, the group, and the organization. (Al-Nasser, 2014: 51-52), There are four processes for generating knowledge from tacit to explicit and vice versa (Al-Banna, 2014: 83) They are as follows:

A. The output: It is the transformation of knowledge from implicit to explicit, in which an individual's knowledge is revealed and

becomes available for transfer to others, relying on methods such as discussions and specialized conferences.

B. Upbringing: It transforms knowledge from tacit to tacit, and this is done through electronic meetings, chat, sharing of experiences, dialogue confrontation, and meetings.

C. Interconnectedness: The declared knowledge is conveyed from one party to another based on various means of communication, such as the Internet, audio-visual means of communication, documents, e-mail, and reports.

D. Globalisation: This happens when the individual obtains knowledge of what a new learning process takes place in him, so he retains this information, reinforces it, analyzes it, and links it to his own mental contents, which generates a new type of knowledge for him that makes him expand his ability to comprehend complex concepts that he had acquired and managed better on his own, thus enabling him to formulate a new and special form. Of knowledge he monopolizes only in the form of implicit knowledge in his mind.

4. 2. 4 Storing knowledge: The process of storing knowledge represents the link between both capturing knowledge and the process of extracting it and returning it to organizational memory (Organization Memory) which includes knowledge contained in various forms such as written documents, information stored in electronic databases, human knowledge stored in expert systems, as well as knowledge contained within organizational procedures and processes, and technical knowledge acquired by individuals and business networks. Information technology also plays an important role. It is essential in expanding organizational memory and retrieving stored information and knowledge. Knowledge repositories constitute a pivotal issue in knowledge-based organizations that are keen to manage their knowledge stock as a

basis for facing the challenges of the external environment and future opportunities and changes. Knowledge stock management carries out both the processes of acquisition, retention and employment of knowledge with the help of technology that supports this. . (Hassan, 2008:28)

4. 2. 5 Distribution of knowledge: It represents the transfer of correct knowledge to individuals who need it at the right time to carry out essential tasks, relying on appropriate means of communication and a culture that encourages the dissemination of knowledge within the boundaries of the organization. It represents sharing the available knowledge, whether implicit or explicit, especially the implicit knowledge that exists in the minds, experiences, and skills of individuals and how to distribute it. This represents the greatest concern for the organization's management because sharing knowledge represents important processes related to improving creativity and the performance of the organization in order to reach a learning organization, which is what contributes to the use of knowledge exchange processes that are based on explicit and used for the purpose of transferring and exchanging it between individuals, groups and organizations, in addition to the use of qualification processes that are based on sharing tacit knowledge, especially with regard to creating new tacit knowledge, and the creation and distribution of knowledge is the basis for achieving the organization's competitive advantage. (Al-Batayneh, 2010: 56)

4. 2. 6 Application of knowledge: The application of knowledge is an essential step to ensure the efficiency of the organization's knowledge system and its success in achieving its goals, as the application of knowledge is more important than the knowledge itself. Knowledge comes from work and how it is taught to others, as it requires learning and explanation, and learning comes through experimentation and application, which improves the level of knowledge and It deepens it, and therefore the application of

knowledge must be taken first, as there is no work free of errors, and the organization must understand that. By correcting errors, the organization's efficiency in benefiting from its knowledge is evaluated and assessed. The processes of creating, storing and distributing knowledge will not lead to improving organizational performance as the process of effective application of knowledge does, especially with regard to the strategic process of achieving quality and customer satisfaction, as the power of knowledge appears in its application. (Al-Aali, 2005: 45)

Table No. (08) Comparing knowledge management processes in some models

Nicholas 1999	Wiig 1993	McElroy 1999	Rollet 2003	Bukowitz 2003	Zack 1996
Organization	Supply	The validity of the knowledge claim	creativity	the use	Liquidation
Specialization	Category	Acquiring information	Merger	Learning	Store and retrieve
Store and access	the transfer	Credibility of knowledge	Organization	Contribution	distribution
Retrieval	Publishing	Integration of knowledge	Transport	Evaluation	the use
distribution	Application		Maintenance	Build and Sustain	
Acquisition	creativity	Individual and group learning	Planning	Fetch	Acquisition
preserving	Realizing value		Evaluation	Abstraction	
get rid of					

Source: Al-Banna, Hussein Musa Qasim and Al-Khafaji, Nima Abbas (2014):

Organizational Empowerment Strategy to Enhance the Effectiveness of Knowledge Management Processes, Dar Al-Ayam Publishing and Distribution, Amman, P. 81.

4. 3 Knowledge management strategies, obstacles, success factors and challenges:

4.3.1 Knowledge management strategies: Based on a model of Nonaka regarding tacit and explicit knowledge, companies employ these two types through two strategies: the coding strategy and the personalization strategy.

A. Coding strategy (Codification Strategy): It depends on explicit knowledge as formal, standard knowledge that can be described, measured, transferred and exchanged. It can also be easily transformed into data and a standard knowledge base that the company can circulate to all employees through its network with the aim of viewing, absorbing and employing it in the company's work. (Najm,2007 64-63:)

B- Personalization strategy (Personalization Strategy): This strategy is based on tacit, non-codable knowledge, as it is interactive and dialogic in the face-to-face relationship between individuals. It can be learned through direct observation and work participation. It is adopted especially by consulting companies and individuals who acquire this knowledge through studying a unique consulting case. They do not encode it, but rather it remains in their minds. It is not exchanged with others in the organization except in cases of team work, such as solving problems, providing consultations, in work sessions, exchanging ideas, and dialogue with individuals. (Buran, 2016: 72)

Table No. (09) : Comparison of knowledge management strategies.

Coding strategy	Personalization strategy
- Interest in information and communications technology - Focus on explicit knowledge - Documenting and coordinating individuals' current knowledge - Coding and education culture - Scientific management - Near-term advantage - Other institutions are adversaries who steal knowledge (failure to transfer knowledge to other institutions).	- Paying attention to personal interactions - Focus on tacit knowledge - Knowledge generation and its applications - Participatory culture - Harmony, care and sharing - Long lasting advantage - Transferring knowledge between institutions is a method of transferring it through the movement of individuals to other institutions.

Source: Al-Aqab, Kamal (2009): Knowledge management in the organization, a field study of public economic institutions in Algeria, Master's thesis in Management Sciences, **University of Algiers 3, Algeria**, P. 52.

5. Obstacles, factors of failure and success of applying KM and its challenges:

For the success of knowledge management application some factors should be noted.

5.1 Obstacles to applying knowledge management:

FOLEY & PRUSAK Locate a number of mistakes can lead to the failure of a knowledge management program, which are: The inability to develop and define a practical definition of knowledge management, which determines the failure to define the distinction between data, information and knowledge.

- Weak rational deductive thinking (conclusions, assumptions and prevailing beliefs).

- The absolute belief that knowledge exists outside the minds of individuals, but the opposite is true (most of it is implicit)
- Ignoring the primary goal of knowledge management to create shared contexts through dialogue.
- Not realizing the importance of tacit knowledge and not encouraging it to be highlighted.
- Isolating knowledge from its uses. (Muslim, 2015: 53-54)

5. 2 Factors that help the success of knowledge management:

Many researchers have stipulated the integration of knowledge management with the business strategy of organizations in the culture of the organization, in addition to the availability of reliable information to the right individuals at the right time, as he summarized (Rastogi, 2000) The success factors of knowledge management are as follows:

- ✓ Innovating and working on continuous learning opportunities for individuals.
- ✓ Providing opportunities for individuals to participate in dialogue, discussion and research.
- ✓ Establishing systems for understanding, disseminating and sharing learning.
- ✓ Working to push individuals to develop and share the collective vision.(Ghadban, 2018: 110-111)
- ✓ Learning increases an individual's intellectual energies and improves his behaviour. (Zeinab Hamid, 2022, page 39)

5. 3 Knowledge management challenges:

Business organizations face many challenges in implementing knowledge management, and (McDermott) points to four challenges, which are (Muslim, 2015: 54-55):

- **Technical challenge Technical Challenge:** Designing systems and information to help individuals think together.

- **Social challenge Social Challenge:** Representing developing organizations that share knowledge and support intellectual diversity to encourage creativity instead of imitation and imitation.
- **Management challenge Management Challenge:** Related to creating an environment for evaluating knowledge sharing.
- **Personal challenge:** Personal Challenge: represented by openness to the ideas of others, the desire to share ideas, and the continuous pursuit of good knowledge.

6. Conclusion:

Through this research, we reached a set of results, the most important of which are:

- * Proving the main hypothesis:
- * We also reached other results that we present as follows:
 - In light of the changing data of the general environment and the rules on which the modern economy is based, or what is known as the era of the knowledge economy, organizations and institutions have become obligated to adopt the new concept of value based on knowledge and how to employ and benefit from it with the aim of achieving excellence and ensuring survival, that is, they must apply knowledge management.
 - Knowledge management is the sum of the processes, activities, means and systems that the organization uses in its effort to organize knowledge in order to benefit from it, whether from its internal or external sources.
 - In order for the organization to be able to apply knowledge management, it must provide the necessary requirements for this, which are mainly represented by qualified and appropriate human resources and leadership that is aware, encouraging and motivating this approach, in addition to adopting an organizational culture that

is commensurate with the changes necessary for the success of its application, as well as adopting an appropriate and flexible organizational structure based on decentralization in taking decisions, and finally providing the appropriate technology infrastructure for the type of knowledge applied.

- The application of knowledge management in the organization goes through several processes, the researchers differed in their number and arrangement, but they agreed on four fundamental processes: generating knowledge, storing knowledge, distributing knowledge, and applying knowledge.

Researchers have presented several models of knowledge management that differ depending on the priorities and foundations of each researcher and his insistence on the influences of the environment, arrangement, number and type of operations that must be carried out to implement knowledge management in an effective manner. Among the most important models we mention: Model (Wiig); Cognitive Value Chain Model (Bots & Brujiin)

- There are several strategies for applying knowledge management in the organization that differ according to the criteria on which it is based. Among the most important classifications, we find, for example, according to (Nonaka & Takushi) According to the criterion of explicit and implicit knowledge, there are two strategies: encoding, and personalization strategy.

- Finally, among the most important factors for the success of implementing knowledge management we find: accuracy in estimating knowledge needs (knowledge gap), flexibility of organization and procedures, participatory work teams, stimulating competencies and creativity, interaction and exchange of experiences, application of modern technology and software such as databases and data analysis software, and availability of...

Knowledge is for everyone, whether from internal or external sources. The organization's success in applying knowledge management ensures its excellence and achieving a competitive advantage characterized by sustainability.

7. Recommendations:

- Understand the various aspects of knowledge management and realize the importance of its application in contemporary organizations.
- The necessity of understanding and analyzing well the characteristics of the organization's environment to choose the most appropriate model for knowledge management for the organization.
- Applying information systems to the organization's functions to achieve adaptation to changes in the technological and technological environment.
- Forming, educating and training the human resource and applying knowledge management achieve the development of intellectual capital and raise the creative capabilities of the organization and thus achieve excellence for the organization.

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