

How can the Knowledge Management requirements enhance its application in the organization -Field study in The University of Ghardaïa-

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Abstract:

This study aimed to identify the impact of knowledge management requirements (organizational climate, training, management information systems and technology), on the application of knowledge management, and a questionnaire was designed to collect data from a random sample, from the study community that represents all 68 employees in all Administrative levels (upper, middle and supervision) in the Faculty of Economic, Business and Management Sciences University of Ghardaia, where questionnaires were distributed and 35 of them were retrieved, and 30 of them were subject to analysis. An effect was found to apply these requirements to improve the level of knowledge management in the institution under study.

Keywords: *knowledge management, organizational climate, training, management information systems and technology*

Jel Classification :: *L25,D83*

ملخص:

هدفت هذه الدراسة إلى التعرف على أثر متطلبات إدارة المعرفة (المناخ التنظيمي، التدريب، نظم المعلومات الإدارية والتكنولوجيا)، على تطبيق إدارة المعرفة، وقد تم تصميم استبانة لجمع البيانات من عينة عشوائية، من مجتمع الدراسة الذي يمثل جميع الموظفين البالغ عددهم 68 موظفًا في جميع المستويات الإدارية (العليا والمتوسطة والإشراف) في كلية العلوم الاقتصادية والتجارية وعلوم التسيير جامعة غرداية، حيث تم توزيع الاستبيانات واسترجاع 35 منهم، و كانت 30 منها قابلة للتحليل. وقد تم التوصل لوجود أثر لتطبيق هذه المتطلبات على تحسين مستوى إدارة المعرفة في المؤسسة محل الدراسة

الكلمات المفتاحية : إدارة معرفة، المناخ التنظيمي، التدريب، نظم المعلومات الإدارية والتكنولوجيا

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1. Introduction:

In these recent years, the Knowledge Management has known an increasing level of importance by many organizations, because of the important knowledge's role in enhancing performance, and helping firms to get a sustainable competitive advantage, after this became a clear focus on the reflection of knowledge on individuals and the impact of this on performance, the roles of knowledge management increased and its role developed day after day.

Much effort has been focused on researchers to enhance the position of knowledge management to increase the effectiveness of business organizations and influence human behavior within the organization in order to achieve excellence and uniqueness.

Perhaps the term "knowledge management" is a relatively recent field that still needs extensive and comprehensive development processes, which encouraged researchers to study it, trying to demystify its basic concepts, and it is noticeable that knowledge management is an effective tool that helps contemporary institutions enter into the era of knowledge with distinction. There is no doubt that knowledge management needs processes and mechanisms (Requirements) to support its process, and from this standpoint we can pose this problem:

1.1 The Problem of Study:

we considered that the subject of our study should focus on answering the following problem:

How can the Knowledge Management requirements enhance its application in the organization under study?

In order to be familiar with all aspects of the topic under discussion, we have divided the main problem into the following sub-questions:

- 1) What is meant by knowledge management requirements and what are their types and levels?
- 2) What are the most prominent elements, models and dimensions of knowledge management?
- 3) What is meant by knowledge management and what factors affect it?
- 4) What is the relationship between knowledge management application and KM requirements in the University under study?

1.2 Hypotheses:

Main hypothesis:

H0: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of KM requirements (management information systems and technology, organizational climate, training) on knowledge management processes to enhance the application of knowledge management in the university under study.

Sub-assumptions:

H01: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of management information systems and technology on knowledge management Application in the university under study.

H02: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of organizational climate on knowledge management Application in the university under study.

H03: There is no effect of statistical significance at the level of significance ($0.05 \geq \alpha$) of training on knowledge management Application in the university under study.

1.2 Objectives of the study:

This study aims to identify the mechanisms and requirements used in applying knowledge management in Ghardaia University.

This study also tries to achieve the following goals:

1 / Knowing the extent of applying knowledge management processes at the University under study.

2 / Knowing the impact of knowledge management requirements through studying the factors "training, management information systems, organizational climate" and their effect on creating, sharing, distributing, storing and applying knowledge.

3 / The possibility of providing recommendations to managers to improve mechanisms that help increase the effectiveness of knowledge management in the University under study.

2 .Theoretical Framework of Knowledge Management and Its requirements:

2.1 Knowledge Management:

Ibrahim Al-Malkawi confirms that: "The term knowledge management is new and some strange, and despite the increasing interest in the last two decades in knowledge management, there is still a new debate about the true concept of knowledge management, as some imagine that knowledge management is synonymous with the term information management, while others see It is a concept centered on private efforts across networks, and a third team believes that knowledge management is the latest struggle of IT producers and consultants, with the aim of selling their innovative solutions to businessmen eager for any tool that contributes to profitability and competitive progress. " (Almalkaoui, 2007, pp. 71-72)

Knowledge management was defined as "it refers to the strategies and structures that maximize intellectual and information resources, through carrying out transparent and technological processes related to finding, collecting, sharing, re-assembling and reusing knowledge, with the aim of creating new value through improving efficiency and individual effectiveness and cooperation in the work of knowledge to increase innovation and decision-making." (Abdul Sattar Al Ali, 2012, p. 26) .

"Wiig" also defines it as: "planning, organizing, monitoring, coordinating and synthesizing knowledge and assets associated with intellectual capital, operations, personal and organizational capabilities and capabilities, and in a manner that achieves the greatest possible positive impact on the results of competitive advantage." (Hijazi, 2005, p. 22)

As for "Ghaleb Yassin" knowledge management is seen as: "working to maximize the efficiency of the use of intellectual capital in business activity, and it requires networking and linking to the best brains of individuals through collective participation and collective thinking." (Ghalib, 2004, p. 124)

It is noticeable that through reviewing the previous definitions and other abundant knowledge management literature, it revolves around the basic processes of knowledge management from generation to application, in order to optimize the use of intellectual capital and knowledge assets in the organization.

2.2 The concept of organizational climate:

The term organizational climate is one of the concepts that crystallized in the context of the development of contemporary administrative thought. The positions of writers who dealt with this topic vary over the last two decades of the last century in order to vary their specialties, their intellectual doctrines, some of them expand its scope and some of them narrow it, and the source of this difference and difference is related to the term climate , Being restricted to the internal environment of the organization or whether it includes its external environment as well (Al Kobaissi, 1998, p. 62).

The concept of organizational climate is used in administrative literature metaphorically, because the word climate in the literal sense is a geographical term related to the environment and the nature of the climate in terms of coldness and warmth. The use of this concept in administrative literature is an affirmation of the necessity of looking at administrative organizations from an organic systemic view that sees the administrative organization as an organism that affects and is affected by the surrounding environment. (Kariouni, 1994, p. 78)

It was defined by both "Stringer" and "Lit win" as : a set of characteristics that distinguish the working environment in the organization and are directly perceived by individuals working in an environment that have a reflection or influence on their motivations and behavior. (Halima Abed El Fattah, 1992, p. 31)

This definition refers to the most important main characteristics that characterize the work environment and which workers are aware of them and their effects. A group of characteristics are identified through the attitudes and behavior of individuals in the organization towards that environment.

And the climate as "Hilal" defines it as: a set of rules, policies, procedures, systems and regulations that define how the work of the administrative organization proceeds in a continuum without interruption or disruption (Hilal, 1993, p. 42).

The administrative climate is not rigid, fixed, or determinant, but rather is the product of an internal interaction between its components, the definition of the importance of this interaction was not indicated by the awareness of the members of the organization and its impact on their behavior, attitudes, and values.

2.4 Training concept:

There are many definitions given to the concept of training, as there is not one agreed definition, and this is due to the difference of views of writers who are familiar with this concept, but we will limit ourselves to dealing with some of them in a way that satisfies the purpose.

First definition: "Training is defined as an organized procedure through which individuals learn knowledge and skills related to a specific purpose." (Aboubaker, 2008, p. 331)

The second definition: "The process by which workers are provided with the knowledge or skills to perform and execute a specific job." (flippo, 1976, p. 3)

The third definition: "It is a learning process that includes the acquisition of skills, concepts, rules or directions to increase and improve an individual's performance." (Ali, 2000, p. 51)

It is also known as "a planned process that aims to improve an individual's skills and capabilities, refine them, and broaden his knowledge through learning, to raise his level of competence and the efficiency of the organization in which he works." (Aliane, 2007, p. 285).

The United Nations defines the training process as a reciprocal process of teaching and learning a set of knowledge and methods related to working life, and it is an activity to transfer knowledge to individuals and groups who are believed to benefit from it. In short, training is the transfer of knowledge and the development of skills.

2.5 The concept of management information systems:

Until now, there is no specific and comprehensive definition of management information systems. Therefore, a number of concepts of information systems will be reviewed in order to reach general features of management information systems. First definition:

"Senn" known as "Management Information System": Management Information Systems is an integrated system to provide Information necessary for planning, control and operations functions in systems. It helps management and decision-making processes by providing information describing the past and present and forecasting the future regarding the organization's internal operations and external

intelligence, and thus provides standardized information at the appropriate time for the organization (Soltan, 2000, p. 78).

The second definition:

"Scott" defined the management information system as: "a comprehensive and coordinated set of sub-information systems that rationally integrate together, to convert data into information in multiple ways to raise productivity and consistent with patterns of characteristics of managers, and on the basis of agreed standards for quality" (Kordi, 2000, p. 181)

Third definition:

Management information systems are defined as "a computer-based system, which provides information to those responsible for an organizational unit, and this information describes what has happened in the past, what is happening now, and what is likely to happen in the future, and this information is available in the form of periodic reports, And special reports, and mathematical model outputs, and this information is used for decision making and problem solving. " (Soltan, 2000, p. 252).

A number of elements can be drawn in light of the previous definitions, namely:

- It is a computer-based information system, for entering and processing data and converting it into information that benefits decision-makers in the organization.
- It is an integrated system that connects different functional areas (marketing, manufacturing, purchasing, financing of individuals), and achieves the integration between the information systems of different functional areas to describe the operations of the organization as a whole.
- It is a system that supports planning, control and operations functions, and is the required activities in all areas of activity.
- It is a system that helps management make decisions after solving problems, whether they are distinct, not repeated, duplicate, or routine.
- It is a system that describes the past and the present and predicts the future. Information describes the organization's past, present, and future status.

3. Method of the study:

3.1 Society and Study Sample:

The study population consists of all 68 employees at all administrative levels (Upper, Middle and Supervisory) at the Faculty of Economic sciences and Commercial sciences and Management in University of Ghardaia .

- A random sample of 40 workers from different levels was selected, where the questionnaires were distributed and 35 were retrieved, of which 30 were subject to analysis.

3.2 Statistical concepts used in the study:

Statistical processing methods to achieve the objectives of the research and analysis of collected data, the researcher adopted a set of appropriate statistical methods using the program called "Statistical Packages for Social Sciences", which is abbreviated as SPSS, where version 19 was used

The researcher used in the analysis of the study data many concepts related to descriptive and indicative statistics, which can be highlighted as follows:

- 1 - Spearman correlation coefficient to ensure the internal consistency between each paragraph of the questionnaire and all the paragraphs of the tool and the coefficient of confusion (Pearson) to ensure the structural consistency of the study paragraphs with the study as a whole.
2. One-way ANOVA test to determine whether there is an effect of the dependent variable on the independent variable due to the demographic variables.
3. Simple and multiple regression: to test the hypotheses in addition to the test of the significance of the relevant significance using the program SPSS.
4. Determination factor R²: To determine the explanatory power of each independent variable to determine the effect of each independent variable in the dependent variable
5. Fisher's test: To determine whether there is a statistically positive relationship between the independent variable with its combined dimensions and the dependent variable.

4. Results and Discussion :

4.1 • Main Hypothesis:

H₀: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of knowledge management requirements (management information systems and technology, organizational climate, training) to knowledge management Application in the University under study.. The results of this hypothesis test are shown in the following table:

Table (1): Results of the main hypothesis test

Variables	B	T calculated	T Significance	The existence of an effect	Hypothesis Test
Constant	1.499	6.479	0.00	////////////////	////////////////
KM requirements	0.642	10.543	0.00	It exists	H1
R ²	0.787	Y=1.499+0.642X			
R	0.887				
F266Significance	0.000				

Source: Prepared by the researchers based on SPSS results

In the table above, we find that the value of the coefficient of determination is 0.787 R². This means that the change in the KM Application is explained by KM requirements (78%) and (22%) by other variables. We also note from the table that Fisher's test is equal to 0.000 and therefore less than 0.05. This indicates acceptance of hypothesis H1, which states that there is a statistically significant positive correlation between the KM requirements and the KM application.

4.2 First Hypothesis Test Results:

01H: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of management information systems and technology on knowledge management Application in the University under study. The results of this hypothesis test are shown in the following table:

Table (2): Results of the First sub-hypothesis test.

Variables	B	T calculated	T Significance	The existence of an effect	Hypothesis Test
Constant	0.515	1.177	0.248	////////////////	////////////////
management information Systems and Technology	0.831	7.746	0.000	It exists	H1
R ²	0.667	Y=0.515+0.831X			
R	0.817				
F267Significance	0.000				

Source: Prepared by the researchers based on SPSS results

In the table above, we find that the value of the coefficient of determination is 0.667 R² = This means that the change in the dimension of the KM Application is explained by the management information systems and by (66%) and (34%) by other variables.

We also note from the table that Fisher's test is equal to 0.000 and therefore less than 0.05, indicating the rejection of the null hypothesis and acceptance of hypothesis H1.

4.3 Second Hypothesis Test Results:

02H: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of the organizational climate on knowledge management Application in the University under study. The results of this hypothesis test are shown in the following table:

Table (3): Results of the second sub-hypothesis test.

Variables	B	T calculated	T Significance	The existence of an effect	Hypothesis Test
Constant	2.147	11.563	0.000	////////////////	////////////////
organizational climate	0.536	9.787	0.000	It exists	H1
R ²	0.761	Y=2.147+0.536X			
R	0.873				
F268Significance	0.000				

Source: Prepared by the researchers based on SPSS results

In the table above, we find that the value of the coefficient of determination is 0.761 $R^2 =$ This means that the change in the dimension of KM Application is explained by the change in the organizational climate by 76% and 24% by other variables. 0.000) and therefore less than (0.05). This indicates rejection of the null hypothesis and acceptance of hypothesis H1.

4.4 Third Hypothesis Test Results:

03H: There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of training on KM Application in the University under study. The results of this hypothesis test are shown in the following table:

Table (4): Results of the third sub-hypothesis test.

Variables	B	T calculated	T Significance	The existence of an effect	Hypothesis Test
Constant	1.229	5.100	0.00	////////////////	////////////////
Training	0.673	11.216	0.00	It exists	H1
R ²	0.807	Y=1.229+0.673X			
R	0.899				
F268Significance	0.000				

Source: Prepared by the researcher based on SPSS results

In the above table we find that the value of the coefficient of determination is 0.807 $R^2 =$ this means that the change in the dimension of KM Application is explained by the change in Training by 80% and 20% by other variables.

We also note from the table that Fisher's test is equal to 0.000 and therefore less than 0.05, indicating the rejection of the null hypothesis and acceptance of hypothesis H1.

5. Conclusion :

Through this study, we tried to link two important topics, one related to the Requirements of applying knowledge management, in which we focused on "organizational climate, training, and management information systems".

As for the second topic, it relates to knowledge management at Ghardaia University.

Thanks to this study, we touched on the most important theoretical aspects related to the two variables, but the primary goal is to know the role entrusted to the requirements of knowledge management and knowledge management in the university, especially those related to "organizational climate, training, and management information systems" which they consider to be the main elements in The Department of Knowledge, as the theoretical aspect was dropped on the field study, which was the reason for the level of a knowledge institution represented at the University of Ghardaia.

* *Theoretical conclusion:*

The theoretical presentation of the study, we can draw the following conclusions:

- 1- The importance of knowledge has increased in the management of today and has become a subject of competition between organizations.
- 2- Knowledge management is a product of the information and communication technology revolution.
- 3- That among the conditions for integration in the world today are the following:
 - Existence of an information and communication technology infrastructure.
 - Paying attention to and encouraging scientific research.
 - Provide highly qualified human resources capable of creativity and innovation.
- 4- Knowledge management is a set of challenges it imposes on human resources management in general and on mechanisms to enhance the application of knowledge management, including:
 - The necessity of investing in the knowledge inherent in human minds in what is known as investing in intellectual capital.
 - Attention to the effective training of human resources in order to produce human capital capable of creativity and innovation.
- 5- The university's role has shifted from a place to acquire knowledge to an institution to produce it.
- 6- There is a set of challenges facing knowledge that must be taken into consideration, especially information piracy and brain drain.

* *Practical conclusion:*

As for the results that we can reach through the field study that was conducted at the level of the University of Ghardaia, which focused on developing the cognitive abilities of the teaching staff, we include them in the following points:

We cannot deny that there are efforts being made by the administration of the University of Ghardaia to develop its human resources, especially the development aspects related to the pedagogic staff.

- Concerning the first hypothesis "there is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of management information systems and technology on knowledge management application in the University under study. After we collect the workers answers and test the hypothesis, we can say that the management information systems and technology affects "highly" the KM application.

. - The second hypothesis "There is no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of the organizational climate on knowledge management processes in University under study. After we collect the workers answers and test the hypothesis, we can say that the organizational climate affects "highly" the KM application.

- As for the third hypothesis, "There is no statistical significance at the level of significance ($0.05 \geq \alpha$) of training on knowledge management processes in the University under study. After we collect the workers answers and test the hypothesis, we can say that the Training affects "highly" the KM application.

*** Recommendations:**

Through the previous results, whether related to theoretical or applied aspects, we can provide the following recommendations:

1- The university administration must take into consideration the challenges posed by knowledge management and try to adapt to its requirements.

2- Paying attention to the human element as it is the real capital of the institution and must be invested in it.

3- Paying attention to the knowledge inherent in human minds and investing in it effectively.

4- As for the institution under study, that is, University of Ghardaia or Algerian universities in general, it must take into account the challenges imposed on it by the knowledge-based economy, and transform from institutions to teach knowledge to institutions for the production and management of knowledge makers.

5- The necessity of providing the adequate number of TIC hardware at Ghardaia University, given the vital role it plays in facilitating knowledge transfers.

6- Providing an effective information network that contributes to the flow of information between individuals of knowledge.

7- Providing the university library with automated media devices to facilitate the process of searching for books or what is known as bibliographic research.

8- Providing an appropriate environment that allows doing business and performing tasks.

9 . The university administration, when selecting candidates for training courses, must define clear frameworks in this area.

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