Knowledge Management Practices among "ATS Staff" in Algerian Universities: an Exploratory Study

Brahim ACHOURI

Abdelhafid Boussouf University Center of Mila, Algeria

b.achouri@centre-univ-mila.dz

Mohammed BENMOUSSA*

Ziane Achour University of Djelfa, MQEMADD Laboratory, Algeria

bben_moussa@yahoo.fr

Received: 11/03/2021 *Accepted*: 05/10/2021 *Published*: 16/12/2021

Abstract :
This research is an attempt to identify the level of knowledge management practices among human resource (ATS staff: Administrative, Technical staff and Service agents) in Algerian universities. In order to achieve this, a sample of (28) Algerian universities is studied, this is in the context of trying to get to know of the opinions of individuals who are human resources workers in Algerian universities and are working in departments of "the administrative, technical staff and service agents" and department of "training and improvement", by using the questionnaire which targeted a sample of (126) individuals out of (140) in the study. We concluded that knowledge management practices are available with moderate level in the Algerian universities, but this is quite inadequate and it needs more efforts in order to reach the optimum utilization of knowledge management.

***Key Words*:** Knowledge Creation, Knowledge storage, Knowledge sharing, Knowledge application, Algerian universities.

JEL Classification : D83, I23**.**

* Corresponding author: Mohammed Benmoussa (*bben_moussa@yahoo.fr*)

Introduction :

Modern organizations recognize knowledge as a strategic resource that strengthens their performance and growth in a globalized environment (Giraldo, S., Aguilar, L., Giraldo, L. and Toro, I., 2019, p.1335). Knowledge is the most important resource for innovative organizations (Oliva, F., Couto, M., Santos, R. and Bresciani, S.,2019, p1964). Knowledge has been defined as a set of justified beliefs that can be arranged and managed to enhance the organization's performance through effective action (Ferraris, A., Mazzoleni, A., Devalle, A. and Couturier, J.,2019, p1927). Knowledge comprises "information processed by individuals, which includes ideas, facts, expertise, and judgements relevant to individuals, teams and organization." (Jia, X., Liao, S., Van der Heijden, B. and Guo, Z. 2019, p. 3648).

Knowledge is seen as the birth of a new economic era of knowledge-based economy "see Table (1)" (Rofiaty, R., 2019, p.665), and it is an important source for companies that operate in the competitive environment today .Knowledge and

knowledge management (KM) are assets for any business organization and determine its success or failure. Without KM, organizations will have less opportunity to survive. As organizations grow rapidly, KM is considered as a key and strategic tool that can improve their competitive position (Jami Pour, M. and Asarian, M., 2019, p.1946). Knowledge, indeed, is a primary asset in modern economy, specifically when it refers to creative industry, where it is mainly the result of individual inspirations, abilities and talents, able to create wealth and employment through the generation and exploitation of intellectual skills and craftsmanship abilities(Manfredi Latilla, V., Frattini, F., Messeni Petruzzelli, A. and Berner, M.,2019, p1337-1338).

The main issue in the implementation of KM is how KM supports the achievement of the organization's goals (Andriani, M., Samadhi, T., Siswanto, J. and Suryadi, K., 2019, p1475). As KM is considered one of the most important assets of each organization which can bring about stability and profitability, many organizations have stepped toward trying to take better advantage of knowledge and its resources. Nonaka and Takeuchi (1997) developed a conceptual framework in which traditional and non-traditional views were integrated, merging two dimensions: the ontological, in which knowledge is created by individuals, and the epistemological, where tacit and explicit knowledge are intrinsically related. When knowledge is shared, it flows beyond the individual level and adds knowledge to the overall organization (Marques, F., La Falce, J., Marques, J. and De Muylder, C., 2019, p1509).

This study attempted to make a contribution to the existing body of knowledge by describing and diagnosing organizational knowledge management practices in universities, especially at the Algerian University. It is agreed that this increased understanding would enable Decision-makers in Algerian universities to better understand their knowledge management practices, and adopt all solutions that would help to support and improve these practices.

Accordingly, the aim of the study is to present and analyze knowledge management practices, identify mechanisms for their improvement, as well as make recommendations to strengthen existing good practices and create new innovative practices.

KM practices encompass the creation of knowledge, its storage, its sharing and lastly application this knowledge. Therefore, the following research questions are designed to fit the study aims:

- *Q1 : What is the reality of knowledge creation practice in Algerian universities from respondents point of view?*
- *Q2 : What is the reality of knowledge storage practice in Algerian universities from respondents point of view?*
- *Q3 : What is the reality of knowledge sharing practice in Algerian universities from respondents point of view?*
- *Q4 : What is the reality of knowledge application practice in Algerian universities from respondents point of view?*

Through this exploratory study, the paper is structured as follows: the introductory section is followed by a review of existing literature on KM and KM practices, and a review of previous studies directly related to KM practices within higher education institutions. The methodological processes used in the study are then explored, followed by a presentation of the study findings. These findings are then discussed. Finally, the conclusions are drawn from the study, and recommendations for future research directions are presented.

I. Literature Review

1. Knowledge management

In today's knowledge economies, the ability to manage knowledge has become more critical than ever before (Ndiege, J. and Wamuyu, P.,2019, p422). A recent progress in information processing provides an extensive utilization of knowledge transfer, production and storage of knowledge, as well as knowledge reuse (Jalilvand, M., Khazaei Pool, J., Khodadadi, M. and Sharifi, M., 2019, p874). KM is defined as the propensity to learn, share and codify the knowledge to gain the firm's competence. Firms that exhibit a higher level of KM capacity are likely to increase their competitiveness through collecting, organizing and transforming knowledge into productive activities (Bashir, M. and Farooq, R., 2019, p363). Knowledge management (KM) is to create and add value through influence and active power of knowledge and experiences that are in the minds of employees which in turn affects performance and innovation in organizations (Delshab, V., Winand, M., Sadeghi Boroujerdi, S., Pyun, D. and Mahmoudian, A., 2019, p668). KM refers to the collection, analyzing processes, storage and sharing of information and knowledge within an organization. It aims to improve efficiency by reducing the need to rediscover and process unnecessary data and information (Jalilvand, M., & all, 2019, p873).

KM has been identified as an important antecedent of innovation, previous studies convey that knowledge generation and dissemination play a crucial role in gaining a sustainable competitive advantage, such as innovation, because of their uniqueness to the firm (Chierici, R., Mazzucchelli, A., Garcia-Perez, A. and Vrontis, D., 2019, p1906). KM includes the firm's processes of acquiring new knowledge, converting knowledge into a form that is usable and easily accessed, and applying this knowledge in the organization (Ferraris, A. & all, J., 2019, p1927). Managing organizational knowledge involves developing new content or replacing existing content within the organization's tacit and explicit knowledge (Manfredi & all,2019, p1338).

KM cultivates an environment in which new knowledge can be created, shared and utilized, KM cultivates an environment in which new knowledge can be created, shared and utilized, which improves not only the characteristics of work content components , but also work environment components (Razzaq, S., Shujahat, M., Hussain, S., Nawaz, F., Wang, M., Ali, M. and Tehseen, S. 2019, p927). The capabilities enable the efficient use of resources while improving both innovativeness and performance (Ndiege, J. and Wamuyu, P.,2019, p422).

KM is initially defined as a systematic approach of capturing, structuring, developing and sharing effectively the relevant knowledge among the people of the organization (Haddadi Harandi, A., Bokharaei Nia, M. and Valmohammadi, C., 2019, p1733). New classification has been provided for KM which is based on technical and non-technical mechanisms. *Technical mechanisms* are mechanisms in which KM is implemented through technology tools including internet and virtual communication within the organization like organizational knowledge, and video conferencing, etc. While *Non-technical mechanism*: Contrary to the technical mechanism, KM is implemented in a real and non-virtual form through this mechanism such as in-person or face to face training (Jami Pour, M. and Asarian, M., 2019, p1946). It is "the process of capturing the collective expertise and intelligence in an organization and using them to foster innovation through continued organizational learning" (Chierici, R., & 2019, p1906).

KM is conductive to the implementation of a model of managerial behavior which is in line with the expectations of the employees and promotes the capitalization on intellectual capital (Guo, W., 2019, p304).The lack of KM in an organization can lead to the learning degeneration and, consequently, to a reduction in the effectiveness of organizational processes (Oliva, F. & all ,2019, p1965)

2. Knowledge management practices

Developing a good business model using KM capabilities, namely, knowledge acquisition, knowledge conversion, knowledge dissemination, knowledge application and knowledge re-use is elusive which needs further development and refinement (Bashir, M. and Farooq, R., 2019, p363). Knowledge of workers and their leaders display a more intensive propensity toward harvesting, storing, generating and leveraging both existing and novel knowledge (re)sources. KM as process is "capturing, distributing, and effectively using knowledge" (Deja, M. and Rak, D. 2019, p481).

It is performed through a schematic process comprising eight key steps to be developed: "definition of knowledge objectives; knowledge identification; knowledge acquisition; knowledge development; knowledge dissemination; knowledge use; knowledge retention; and knowledge assessment", see Figure (1) (Oliva, F. & all , 2019, p1965). Through social and collaborative processes as well as individual's cognitive processes, knowledge is created, shared, amplified, enlarged and justified in organizational settings (Manfredi & all,2019, p1338). KM practices, also known as KM processes, refer to the flow of information and knowledge among the actors of the firm through the practices like knowledge acquisition and knowledge codification. The operational definition of KM practices for this research study includes the activities or practices of knowledge creation, knowledge sharing, knowledge codification and knowledge retention (Razzaq, S., & all. 2019, p927-928).

KM capabilities are among the most widely cited works in KM literature. The model identified two major enablers of KM capabilities, namely, knowledge infrastructure capability and knowledge process capability. Knowledge infrastructure capability is composed of multiple dimensions such as technology,

structure and culture of the organization, whereas knowledge process capability is made up of acquisition, conversion, application and protection of the information (Meher, J. and Mishra, R., 2019, p443) .The KM practices stimulate the employees to move beyond their comfort zone and rethink something new about the smooth functioning of the organization (Meher, J. and Mishra, R., 2019, p442).

2.1 Knowledge creation (discovery & capture)

To compete successfully in today's market place, organizations need to promote a culture of competitiveness and knowledge development (Fantazy, K. and Tipu, S.,2019, p936). The importance of KM cannot be neglected in today's complex and ever-changing conditions. The organizations that know-how to effectively acquire, use and disseminate knowledge among their employees would be the leaders of their industry (Haddadi Harandi, A., & all, 2019, p1733). The purification of knowledge identification, creation and assimilation and evaluation process is regarded as knowledge integration (Meher, J. and Mishra, R., 2019, p442). Knowledge discovery may take place through collaborative and social activities, and through the cognitive reflections of individuals. Knowledge capture is associated with the processes that enable the retrieval of the knowledge residing within people and organizational entities or artifacts (Ndiege, J. and Wamuyu, P.,2019, p423).

The most well-known knowledge conversion application is the knowledge spiral of Nonaka and Takeuchi that has the components of socialization, externalization, combination and internalization (Barrantes Briceño, C. and Almada Santos, F., 2019, p 904). Knowledge acquisition is the process used to develop new knowledge from data and information, while knowledge conversion refers to making the acquired knowledge useful for the organization by structuring it or transforming tacit knowledge into explicit knowledge (Ferraris, A. & all, J.,2019, p1927). In certain specific contexts, the knowledge worker may wish to develop the internalized knowledge further through re-contextualization, induction and deduction reasoning. This operation may generate elaborated tacit knowledge, which would continue to evolve, following the knowledge cycle (Oufkir, l. and Kassou, I., 2019, p1408).

2.2 Knowledge storage

The more knowledge is stored, the more likely it is to be retrieved, and the more intensive is the knowledge retrieval. Once knowledge is retrieved, there are two possibilities: either the knowledge worker attempts to assimilate it through internalization or uses it in a knowledge utilization solution (Oufkir, l. and Kassou, I., 2019, p1408). It is imperative that once relevant knowledge has been discovered, this knowledge is captured and stored in an accessible and reusable form (Ndiege, J. and Wamuyu, P.,2019, p422-423).

Once information is collected and coded in some form, it has to be stored so it can be accessed to be of any value to an organization. Several mechanisms have been proposed as a means for storing organizational knowledge. Knowledge storage and organizational memory are closely linked (Adobor, H., Kudonoo, E. and Daneshfar, A., 2019, p676).

2.3 Knowledge sharing

Knowledge is perceived as a source of priority, advantage, and even power. Employees are usually not willing to share knowledge without strong personal motivation as they may face a risk of losing personal privilege (Delshab, V., & all, 2019, p668). Individuals are an essential factor of knowledge transfer and should be considered, especially when sharing tacit knowledge, which requires more interaction among people, because people's experience and knowledge is an important aspect of KM, and it helps improve the capacity for knowledge absorption. Conversational and social skills influence knowledge transfer and relationship-building (Giraldo, S., Aguilar & all, 2019, p1379-1380). Knowledge sharing is associated with the processes that enable knowledge retrieval. It is imperative, therefore, that keen attention is paid to building cultures and practices that support knowledge sharing (Ndiege, J. and Wamuyu, P.,2019, p423), in this activity, knowledge, information, skills and expertise are transformed.

Knowledge transfer, on the other hand, pertains to an articulated process of sharing values, purposes, common belief as well as a specific know-how embedded in the organizational processes and in the ability of its workers. Knowledge transfer can be interpreted as "a process of exchange of explicit or tacit knowledge between two agents, during which one agent purposefully receives and uses the knowledge provided by another". Rigorous knowledge creation and dissemination impart the employees for their inherent quality and make them capable of doing something new. (Manfredi & all,2019, p1338). (Meher, J. and Mishra, R., 2019, p442). Participative practices foster knowledge sharing among employees through well-structured meetings, feedback, and discussions. On the other hand, standardized practices support employees by providing access to stored knowledge in formats such as standard operating procedures and guidelines. These two knowledge sharing mechanisms, i.e. participative practices and structured practices, provide knowledge that is useful for solving problems (Galeazzo, A. and Furlan, A., 2019, p1018).

2.4 knowledge application

Knowledge application refers to the use of knowledge to perform tasks (Ferraris, A. & all, J.,2019, p1927). It means the exploitation of knowledge; in other words, putting knowledge into use, and it involves bringing together the knowledge that has been discovered, captured and shared for application and use (Ndiege, J. and Wamuyu, P.,2019, p422). The application of knowledge means that members are able to apply internal and external knowledge to accomplish task (Akhavan, P., Philsoophian, M. and Karimi, M., 2019, p409).

Knowledge application refers to "the phase in which existing knowledge is brought to bear on the problem at hand." Knowledge application is perceived as a critical stage since knowledge creation or transfer would not inevitably result in positive organizational outcomes unless they are applied. This is called the knowing–doing gap which implies that it is not sufficient just to share and transfer knowledge within companies, rather it is important to apply knowledge effectively to tackling issues and delivering products and services (Akhavan, P., & all, 2019).

2.5 Knowledge management practices within higher education institutions in empirical studies

a. Study of: (V. Nair, B. and Munusami, C. (2019), "Knowledge management practices : An exploratory study at the Malaysian higher education institutions ")

"**Purpose**": The purpose of this paper is to investigate KM practices that exist in the higher education institutions (HEIs) and whether the KM practices are made known to the employees for improving the teaching and learning environment provided at the Malaysian higher education institutions. "**Methodology**": Data were collected using a personal administrated method made available to private higher education institutions academic members in five states with 30 or more employees. A total of 1,100 survey questionnaires were handed, out of which 273 were collected and were usable (24.8 per cent response rate). The sample was checked for response and non-response bias. Results were tested using SPSS application and questionnaire tools. "**Findings**": It was essential to establish knowledge management (KM) capacity in key areas such as the ability to recognize experts within the institution, leadership's innovation, knowledge sharing and knowledge acquiring work culture, and technology usage. KM tools and techniques would help the institutions to meet their competitive goals; therefore, it is vital for HEIs to create KM awareness among the employees.

b. Study of: (Veer Ramjeawon, P. and Rowley, J. (2018), "Knowledge management in higher education institutions in Mauritius")

"**Purpose**": The purpose of this paper is to research on knowledge management (KM) in higher education institutions (HEIs) by studying its processes, knowledge creation (KC), knowledge sharing (KS) and knowledge transfer (KT), in Mauritius. "**Methodology**": Semi-structured interviews were conducted with senior staff in the main public and private HEIs in Mauritius. Questions focussed on KM strategy and processes. Interviews were recorded and transcribed prior to thematic analysis. "**Findings**": Although participants could discuss KM processes, none of the participating institutions had a KM strategy. All institutions are involved in KC and acquisition, KS and KT. In addition to research, knowledge was regarded as being created through teaching and learning activities, consultancies, organizational documentation and acquisition from external sources. Knowledge is shared among peers during departmental and curriculum meetings, through annual research seminars, and during conferences and publications in journals. KT with industry through consultancies is restricted to a few public HEIs. In the remaining HEIs, KT is limited to their students joining the workforce and to organizing tailor-made courses and training programmes for public and private institutions. The study also provides evidence that some processes and activities contribute to more than one of KC sharing and transfer.

c. Study of: (Veer Ramjeawon, P. and Rowley, J. (2017), "Knowledge management in higher education institutions: enablers and barriers in Mauritius")

"**Purpose**": The purpose of this study is to contribute to research on knowledge management in higher education institutions (HEIs), by studying the enablers and barriers to knowledge management in a country with a developing higher education sector, Mauritius. "**Methodology**": Semi-structured interviews were conducted with senior staff in the main public and private HEIs in Mauritius. Questions focused on knowledge management, including relevant barriers and enabling factors to knowledge creation, knowledge sharing and knowledge transfer. "**Findings**": Although participants were able to discuss knowledge management, none of the universities had a knowledge management strategy. Moreover, more barriers than enablers to knowledge management were identified. Barriers included: lack of policies and reward mechanisms, resources, data, funding and time for research, coupled with frequent leadership changes, a lack of a knowledge-sharing culture and research repositories and weak industry–academia linkages. Enablers were perceived to be: qualified and experienced academic staff in public HEIs, information technology (IT) infrastructure, and library/digital library and some incentives for knowledge creation and transfer.

d. Study of: (Chawla, A. and Saxena, S. (2016), "A confirmatory factor analysis of knowledge management assessment instrument in Indian higher educational institutions")

"**Purpose**": The purpose of this paper is to examine the reliability and validity of the knowledge management assessment instrument (KMAI) developed by Lawson (2003) that consists of 24 items. "**Methodology**": The study involved 225 research scholars and 225 faculties' members from nine higher educational institutions. The respondents were required to respond to a five-point Likert scale from strongly agree to strongly disagree. The collected data were then analyzed using the SPSS 18.0 and AMOS 18.0 software packages. An exploratory factor analysis was conducted earlier than performing a confirmatory factor analysis. "**Findings**": All constructs revealed the acceptable internal consistency reliability. A good model fit was found for the measurement model using several fit index tests like CMINDF, TLI, GFI AGFI, CFI and RMSEA. The findings showed that all fit indices criteria were accomplished. It also showed the acceptable reliability and construct validity.

II. Methods and Materials:

1. Data collection tools

In order to collect data related to the reality and level of study variable in Algerian universities, the questionnaire was used. For the purpose of analyzing and extracting useful information, many statistical tools were used, most of which are available in the SPSS program.

In order to measure the Respondents' awareness about items of study axis, the closed form was adopted in questionnaire preparation according to five point Likert scale. So, the degree of approval is as follows:

- Mean of 1 to 1.79, representing (strongly disagreeing) towards each item;
- Mean from 1.80 to 2.59, representing (disagreeing) towards each item;

- Mean from 2.60 to 3.39, representing (neutral) towards each item;
- Mean 3.40 to 4.19, representing (agree) towards each item;
- Mean 4.20 to 5.00 represents (strongly agree) towards each item;

The degree of approval for whole axis follows:

- Mean of 1 to 2.33, reflecting a (low) level of the axis to be measured;
- Mean from 3.34 to 3.67, reflecting a (medium) level of the axis to be measured;
- Mean from 3.68 to 5.00, reflecting a (high) level of the axis to be measured;

The study measurement tool, which is represented in the questionnaire, consists of (13) items as follows:

- The first axis; contains the functional data that reflect the respondents sample characteristics (job status, interest, university).
- The second axis (organizational KM practices); contains (13) item on the Likert five-level scale, the items were distributed to include the following four dimensions:

- The first dimension (knowledge creation) 'KC': phrases (1-2-3) are assigned to it;
- The second dimension (knowledge storage) 'KSt': phrases (4-5-6) are allocated to it;
- Third dimension (knowledge sharing) 'KSh': phrases were assigned (7-8-9);
- The fourth dimension (knowledge application) 'KA': and assigned him phrases (10-11-12-13).

2. Data analysis tools

In order to achieve the study objectives by collecting and analyzing data, many suitable statistical methods were used through SPSS "22nd edition", the following are the most important statistical tests used:

- Cronbach's Alpha: coefficient to measure internal consistency of questionnaire;
- Kolmogorov-Smirnov test: in order to check whether data are normally distributed;
- Frequencies and Percentages: in order to identify the sample functional characteristics of respondents and determine their responses to the items of axis included in the study;
- Mean: in order to find out how high or low the responses of respondents sample of to each items;
- Standard deviation: to identify deviation extent of sample responses to each of the items and was also used to rank item with equal mean in favor of the least dispersion.

3. Study population and statistical sampling unit

The field of this study is the Algerian universities as one of the institutions of higher education. According to the Algerian Ministry of Higher Education, the universities are divided regionally in line with (the socio-economic fabric and the

number of students) according to three aspects: (Center area "17 universities"), (East "22 universities"), (West "11 universities").

The statistical sampling unit was represented in the human resources who work in the Algerian universities both in department of "The administrative, technical staff and service agents" (DATSSA) or department of "Training and Improvement" (DTI).

4. Sample of the study

The number of the sample of the study (140) individuals selected from twenty-eight (28) universities "out of (50) universities, selected by stratified random method according to the proportional allocation level.

5. Questionnaire stability

In order to verify internal consistency of questionnaire we used the Kronbach alpha coefficient, which was (0.905) and this indicates a very high consistency, thus, there is a possibility of consistency in the results.

6. Normality Test

The values of One-Sample Kolmogorov-Smirnov Test is (0.044) with a significant level of (0.2), which means that data study follows the normal distribution, where the statistical significance was higher than (0.05).

III. Results and discussion

Below we present and discuss data on availability level of KM practices in Algerian universities, by measuring the availability degree of: knowledge creation 'KC', knowledge storage 'KSt', knowledge sharing 'KSh', knowledge application 'KA'. For this, we rely on the calculation of frequencies, percentages, means and standard deviation.

1. Availability level of KM practices in Algerian universities

The mean and standard deviation of the dimensions of organizational management processes are illustrated and arranged in Table (2).

It is clear from Table (2) that the respondents agree on the availability of KM processes in the Algerian universities.

The mean for this axis was (3.274) with SD of (0.724), and falls within the category (2.34 to 3.67), which indicates that KM processes availability with a moderate degree from respondents point of view. 'KSt'came first with mean of 3.601, which is higher than the general mean (3.274), and a SD of 0.910, while 'KSh' came fourth and last with mean of 3.011, which is lower than general mean (3.274) – and SD of (0.886).

The following is an explanation of sample respondents views on items that measure availability of each dimension of KM practices.

2. Availability level of KC practice in Algerian universities

This dimension consists of three items, whose order in the questionnaire corresponds to (1, 2, 3). For the purpose of analysis, we calculate the means and SDs, and present approval degrees according to the respondents opinions of the study sample.

Table (3) refers to the responses to items related to the KC availability in the Algerian universities, and it is clear from this table that respondents agree to KC availability, where the approval mean of this dimension (3.117) with SD of (0.913), and this mean falls into the category (2.34 to 3.67), which indicates the availability of KC with medium degree from respondents point of view.

The items under the KC are arranged according to approval degree as follows:

- **Item No. (2)**: ranked first in terms of approval degree of the respondents, where the approval degree mean is (3.45), and SD of (1.025). This reflects an acceptable level of interest by Algerian universities in enriching skills and expertise of employees, but this level can be enhanced by stimulating interactions between employees or between them and their environment and all this in order to derive tacit and explicit knowledge. The University can also develop staff skills by encouraging mechanism of their learning from each other by sharing their experiences among themselves and by organizing and coding their tacit knowledge thorough making their knowledge visible (within the university);
- **Item No. (1)**: ranked second in terms of approval degree of the respondents, where the approval degree mean is (2.95), and SD of (1.137). This interest is not great, it is below average, and this points out that Algerian universities do not attach importance to organization such as seminars targeting employees would contribute to enrich their knowledge and make them more susceptible to make their tacit knowledge in a context in which it is active and effective. Such spaces (seminars) are very necessary in order to obtain external knowledge and to attract it in the university through the transfer of knowledge to staff.
- **Item No. (3)**: ranked third in terms of approval degree of the respondents, where the approval degree mean is (2.94), and SD of (1.068). This indicates that this view exists, but it is completely immature and does not go beyond recognition of the employee's academic certificate or level of education and this must be exceeded much further. The employee - if seen as a knowledge resource - will work to devote and allocate all his knowledge and knowledge acquired in order to raise his performance to the highest possible level, which contributes a great deal in raising the degree of acquiring knowledge on a voluntary and continuous basis.

3. Availability level of KS practice in Algerian universities

This dimension consists of three items, whose order in the questionnaire corresponds to (4, 5, 6). For the purpose of analysis, we calculate the means and SDs, and present approval degrees according to the respondents' opinions of the study sample.

Table (4) refers to the responses to items related to the KS availability in the Algerian universities, and it is clear from this table that respondents agree to KS availability, where the approval mean of this dimension (3.601) with SD of (0.910), and this mean falls into the category (2.34 to 3.67), which indicates the availability of KS with medium degree from respondents point of view.

The items under the KS are arranged according to approval degree as follows:

- **Item No. (5)**: ranked first in terms of approval degree of the respondents, where the approval degree mean is (3.75), and SD of (1.017). This is due to the nature of the university's activity, which is mainly based on dealing with documents that require great care in dealing with and retaining them. Any failure in this storage process could make the university face the risk of loss of knowledge. Therefore, great attention must be paid to the so-called organizational memory, which constitutes an integrated organizational archive of all university knowledge;
- **Item No. (6)**: ranked second in terms of approval degree of the respondents, where the approval degree mean is (3.69), and SD of (1.008). This reflects the minimum and acceptable level of care required by the university's knowledge, which has been arranged and organized in a manner that is easy to refer to and use;
- **Item No. (4)**: ranked third in terms of approval degree of the respondents, where the approval degree mean is (3.36), and SD of (1.135). This commitment, even if it is not large and sometimes limited, reflects permanent and orderly storage of acquired and formed knowledge, In order to ensure high efficiency in this process, the university must continuously evaluate the available knowledge with a view to develop and update it, and then keep it in the custody of employees, individuals and groups, as well as within the traditional means of preservation such as documents and files, and modern like computer-style

4. Availability level of KSh practice in Algerian universities

This dimension consists of three items, whose order in the questionnaire corresponds to (7, 8, 9). For the purpose of analysis, we will work to calculate the means and SDs, and present approval degrees according to the respondents' opinions of the study sample.

Table (5) refers to the responses to items related to the KSh availability in the Algerian universities, and it is clear from this table that respondents agree to KSh availability, where the approval mean of this dimension (3.011) with SD of (0.886), and this mean falls into the category (2.34 to 3.67), which indicates the availability of KSh with medium degree from respondents point of view.

The items under the KSh are arranged according to approval degree as follows:

- **Item No. (8)**: ranked first in terms of approval degree of the respondents, where the approval degree mean is (3.12), and SD of (1.025). This is an indication that Algerian universities sometimes seek to contribute to dissemination of knowledge among employees by encouraging communication and interaction among them. This encouragement can be activated through the adoption of knowledge transfer strategies such as the sequential transfer of knowledge by a team of staff who transfer their expertise and experience from one location to another at the university where it ensures speed, skill and mastery in completing tasks;
- **Item No. (9)**: ranked second in terms of approval degree of the respondents, where the approval degree mean is (3.12),and SD of (1.100). It is clear here that the availability element sometimes exists, but not always, and this is incompatible with the proposition that knowledge should be delivered to the researcher in a timely manner and the importance of reaching the maximum number of employees at the

university. Therefore, Algerian university decision makers should focus on this aspect through facilitating staff access to information and knowledge, which can be done by eliminating the closure of interests and departments in the university on each other and in return encourage the policy of openness to the other so that the organizational units in the university operate in an integrated and synergistic format.

- **Item No. (7)**: ranked third in terms of approval degree of the respondents, where the approval degree mean is (2.79), and SD of (1.127). This is an indication that Algerian universities sometimes hold meetings that bring their staff together in order to facilitate the process of meeting and exchanging of knowledge and information acquired through direct contact. Further consideration should be given to other aspects that contribute to the transfer of knowledge between the different organizational levels of the University, which may be intended through official communication channels (eg reports, correspondence, seminars, etc.), or inadvertently through (informal arrangements ,.informal meetings, side events and open discussion forums).

5. Availability level of KA practice in Algerian universities

This dimension consists of three items, whose order in the questionnaire corresponds to (10, 11, 12, 13). For the purpose of analysis, we will work to calculate the means and SDs, and present approval degrees according to the respondents opinions of the study sample.

Table (6) refers to the responses to items related to the KA availability in the Algerian universities, and it is clear from this table that respondents agree to KA availability, where the approval mean of this dimension (3.369) with SD of (0.769), and this mean falls into the category (2.34 to 3.67), which indicates the availability of KA with medium degree from respondents point of view.

The items under the KA are arranged according to approval degree as follows:

- **Item No. (13)**: ranked first in terms of approval degree of the respondents, where the approval degree mean is (3.76), and SD of (0.862). This reflects a clear and significant interest on the part of staff to apply the knowledge they hold for use in the context of improving the performance of the university. This indicates that employees are aware of the fact that knowledge is one of the most important means of accomplishing many works as they are employed in the activities of the University.
- **Item No. (11)**: ranked second in terms of approval degree of the respondents, where the approval degree mean is (3.55), and SD of (1.001). This is an indication that Algerian universities rely on the expertise, skills and acquisitions of their employees to perform their various activities. This can be explained by the belief of Algerian university decision makers that the application of knowledge is the goal of knowledge management. It is not enough to obtain and store it ideally and fully.
- **Item No. (12)**: ranked third in terms of approval degree of the respondents, where the approval degree mean is (3.18), and SD of (1.015). It is clear from this that sometimes the knowledge held by the university is one of the means or strategies

through which to adapt to changes in the surrounding environment. However, the role should always be such that Algerian university staff must be convinced that knowledge is one of the most important weapons through which the University's activities are harmonized with the requirements of the external environment.

- **Item No. (10)**: ranked third in terms of approval degree of the respondents, where the approval degree mean is (2.98), and SD of (1.073). This shows that sometimes the environment in which staff apply their knowledge and experience is appropriate, although staff members have always sought to use available knowledge to improve the performance of the University, and although the University relies on staff skills and knowledge to perform its activities, substantive requirements must be provided in order to create an enabling environment for the application of acquired knowledge, including the delegation of more authority to staff and empowerment of staff, which will create a positive environment makes the application of knowledge in the most efficient way possible.

Conclusion

The essence of knowledge management is its practice, which can be collected in four fundamental stages (knowledge creation, storage, sharing and application), for these processes to be organized in a high and orderly manner, an enabling regulatory environment should be created and allowed to maximize the use of knowledge efficiency. The study questions centered on "*trying to explore the knowledge practices reality in Algerian universities*", through this exploratory study and by studying a sample of 28 Algerian universities, our answer to these questions is in this **result**:

"Knowledge management practices are available at Algerian universities in terms of approval degree of the respondents, where the approval degree mean was (3.274), and from the perspective of their constituent dimensions the approval degree mean was (3.117, 3.601, 3.011, 3.369), respectively".

The above result does not prevent from saying that there is a problem of knowledge management in Algerian universities, as knowledge system improvement within the university through the activation of knowledge management practices (creation, storage, sharing, and application) it cannot be achieved as long as there are obstacles in the organizational environment, such as (lack of leadership awareness with cognitive action importance of knowledge activity, the absence of a supportive organizational culture of knowledge, the existence of a traditional organizational structure that does not fit knowledge flow, the existence of technological and information backwardness) .

Knowledge management practices level in Algerian universities is quite inadequate, therefore, we propose the following **recommendations** to the decision makers in Algerian universities:

- Increased interest in enriching the skills and expertise of staff and working to improve it, which can be achieved through the activation of interactions;
- Looking at every university employee as a source of knowledge;

- Great interest in the organizational memory of the university as it is an integrated organizational archive of all knowledge of the university;
- Focus on knowledge availability by facilitating employees' access to information and knowledge;
- Adopting knowledge transfer strategies, such as a sequential transfer of knowledge by a team of staff who transfer their expertise and experience from one location to another;
- Believing that the application of knowledge is the goal of knowledge management, as the acquisition and storage of knowledge is not enough, the most important is to make knowledge available to apply and make perfect use of it.

Addressing subject of knowledge practices in Algerian universities raises several important topics, in general, they constitute interesting **research prospects**. As research topics, we propose the following:

- Obstacles to knowledge management practices at the University;
- Towards activating cognitive action in universities;

Team works and their role in knowledge creation and acquisition in the university.

Bibliography:

- Adobor, H., Kudonoo, E. and Daneshfar, A. (2019), "Knowledge management capability and organizational memory: a study of public sector agencies", International Journal of Public Sector Management, Vol. 32 No. 6, pp. 671-687.
- Akhavan, P., Philsoophian, M. and Karimi, M. (2019), "Selection and prioritization of knowledge management strategies as proportionate with organizations' level of maturity using fuzzy TOPSIS approach, case study", VINE Journal of Information and Knowledge Management Systems, Vol. 49 No. 3, pp. 397-419.
- Andriani, M., Samadhi, T., Siswanto, J. and Suryadi, K. (2019), "Knowledge management strategy: an organisational development approach", Business Process Management Journal, Vol. 25 No. 7, pp. 1474-1490.
- Asiaei, K. and Bontis, N. (2019), "Translating knowledge management into performance: the role of performance measurement systems", Management Research Review, ahead-of-print. Retrieved from: www.emerald.com/insight/content/doi/10.1108/MRR-10-2018-0395/full/html
- Barrantes Briceño, C. and Almada Santos, F. (2019), "Knowledge management, the missing piece in the 2030 agenda and SDGs puzzle", International Journal of Sustainability in Higher Education, Vol. 20 No. 5, pp. 901-916.
- Bashir, M. and Farooq, R. (2019), "The synergetic effect of knowledge management and business model innovation on firm competence", International Journal of Innovation Science, Vol. 11 No. 3, pp. 362-387.
- Chawla, A. and Saxena, S. (2016), "A confirmatory factor analysis of knowledge management assessment instrument in Indian higher educational

institutions", International Journal of Quality & Reliability Management, Vol. 33 No. 7, pp. 1019-1029.

- Chierici, R., Mazzucchelli, A., Garcia-Perez, A. and Vrontis, D. (2019), "Transforming big data into knowledge: the role of knowledge management practice", Management Decision, Vol. 57 No. 8, pp. 1902-1922.
- Deja, M. and Rak, D. (2019), "Knowledge management and academic information behaviour", Aslib Journal of Information Management, Vol. 71 No. 4, pp. 480-499.
- Delshab, V., Winand, M., Sadeghi Boroujerdi, S., Pyun, D. and Mahmoudian, A. (2019), "Analyzing the influence of employee values on knowledge management in sport organizations", Journal of Science and Technology Policy Management, Vol. 10 No. 3, pp. 667-685.
- Fantazy, K. and Tipu, S. (2019), "Exploring the relationships of the culture of competitiveness and knowledge development to sustainable supply chain management and organizational performance", Journal of Enterprise Information Management, Vol. 32 No. 6, pp. 936-963.
- Ferraris, A., Mazzoleni, A., Devalle, A. and Couturier, J. (2019), "Big data analytics capabilities and knowledge management: impact on firm performance", Management Decision, Vol. 57 No. 8, pp. 1923-1936.
- Galeazzo, A. and Furlan, A. (2019), "Good problem solvers? Leveraging knowledge sharing mechanisms and management support", Journal of Knowledge Management, Vol. 23 No. 6, pp. 1017-1038.
- Giraldo, S., Aguilar, L., Giraldo, L. and Toro, I. (2019), "Techniques for the identification of organizational knowledge management requirements", Journal of Knowledge Management, Vol. 23 No. 7, pp. 1355-1402.
- Guo, W. (2019), "Collaborative knowledge management for corporate ecological responsibility", Data Technologies and Applications, Vol. 53 No. 3, pp. 304-317.
- Haddadi Harandi, A., Bokharaei Nia, M. and Valmohammadi, C. (2019), "The impact of social technologies on knowledge management processes", Kybernetes, Vol. 48 No. 8, pp. 1731-1756.
- Jalilvand, M., Khazaei Pool, J., Khodadadi, M. and Sharifi, M. (2019), "Information technology competency and knowledge management in the hospitality industry service supply chain", Tourism Review, Vol. 74 No. 4, pp. 872-884.
- Jami Pour, M. and Asarian, M. (2019), "Strategic orientations, knowledge management (KM) and business performance", Kybernetes, Vol. 48 No. 9, pp. 1942-1964.
- Jia, X., Liao, S., Van der Heijden, B. and Guo, Z. (2019), "The effect of socially responsible human resource management (SRHRM) on frontline employees' knowledge sharing", International Journal of Contemporary Hospitality Management, Vol. 31 No. 9, pp. 3646-3663.

- Manfredi Latilla, V., Frattini, F., Messeni Petruzzelli, A. and Berner, M. (2019), "Knowledge management and knowledge transfer in arts and crafts organizations: evidence from an exploratory multiple case-study analysis", Journal of Knowledge Management, Vol. 23 No. 7, pp. 1335-1354.
- Marques, F., La Falce, J., Marques, J. and De Muylder, C. (2019), "The relationship between stress and maturity in knowledge management", International Journal of Organizational Analysis, Vol. 27 No. 5, pp. 1504-1521
- Meher, J. and Mishra, R. (2019), "Assessing the influence of knowledge management practices on organizational performance", VINE Journal of Information and Knowledge Management Systems, Vol. 49 No. 3, pp. 440-456.
- Ndiege, J. and Wamuyu, P. (2019), "Knowledge management practices and systems in county governments in developing countries", VINE Journal of Information and Knowledge Management Systems, Vol. 49 No. 3, pp. 420-439.
- Oliva, F., Couto, M., Santos, R. and Bresciani, S. (2019), "The integration between knowledge management and dynamic capabilities in agile organizations", Management Decision, Vol. 57 No. 8, pp. 1960-1979.
- Oufkir, l. and Kassou, I. (2019), "Performance measurement for knowledge management project: model development and empirical validation", Journal of Knowledge Management, Vol. 23 No. 7, pp. 1403-1428.
- Razzaq, S., Shujahat, M., Hussain, S., Nawaz, F., Wang, M., Ali, M. and Tehseen, S. (2019), "Knowledge management, organizational commitment and knowledge-worker performance", Business Process Management Journal, Vol. 25 No. 5, pp. 923-947.
- Rofiaty, R. (2019), "The relational model of entrepreneurship and knowledge management toward innovation, strategy implementation and improving Islamic boarding school performance", Journal of Modelling in Management, Vol. 14 No. 3, pp. 662-685.
- V. Nair, B. and Munusami, C. (2019), "Knowledge management practices: an exploratory study at the Malaysian higher education institutions", Journal of Research in Innovative Teaching & Learning, Vol. ahead-of-print. Retrieved from:
- www.emerald.com/insight/content/doi/10.1108/JRIT-01-2019-0008/full/html
- Veer Ramjeawon, P. and Rowley, J. (2017), "Knowledge management in higher education institutions: enablers and barriers in Mauritius", The Learning Organization, Vol. 24 No. 5, pp. 366-377.
- Veer Ramjeawon, P. and Rowley, J. (2018), "Knowledge management in higher education institutions in Mauritius", International Journal of Educational Management, Vol. 32 No. 7, pp. 1319-1332.

Appendices

Table1 : « Characteristics of the industrial age and the knowledge age »

The industrial age	The knowledge age
Physical assets	Intangible assets
Job fragmentation	Job integration & cooperation
Mass marketing	Just in time
Operating efficiency	Innovation
Control management	Goal achievement
Training	Learning

Source: (Rofiaty, R., 2019, p665)

Fig. 1 : «Knowledge management practices»

Source: author's illustration

Table 2 : « Summary of of KM processes availability in Algerian universities »

KM practices	Mean	SD	Rank	Availability
KC	3.117	0.913	3	Medium
KSt	3.601	0.910	1	Medium
KSh	3.011	0.886	4	Medium
KA	3.369	0.769	2	Medium
Means & SD of the axis	3.274	0.724	/	Medium

Source: Author's preparation based on statistical analysis result

Table 3 : «Approval degree, means and SDs of KC items in Algerian universities»

Items		Approval degree					Mean	SD
		Strongly Agree	Agree	Neutral	not agree	Strongly Disagree		
1- The university is interested in organizing seminars in order to give staff new knowledge and information.	Fr	5	49	21	37	14	2.95	1.137
	%	4	38.9	16.7	29.4	11.1		
2- The university encourages the development of staff skills and experience.	Fr	15	58	26	23	4	3.45	1.025
	%	11.9	46	20.6	18.3	3.2		
3- The University views every employee as a source of knowledge.	Fr	9	29	46	30	12	2.94	1.068
	%	7.1	23	36.5	23.8	9.5		
General mean and SD of availability degree for KC							3.11	0.913

Source: Author's preparation based on statistical analysis result

Table 4 : « Approval degree, means and SDs of KS items in Algerian universities»

Items		Approval degree					Mean	SD
		Strongly Agree	Agree	Neutral	not agree	Strongly Disagree		
4- University knowledge is stored continuously and orderly.	Fr	23	36	36	25	6	3.36	1.135
	%	18.3	28.6	28.6	19.8	4.8		
5- University knowledge is stored in various formats (reports, documents, electronic files in computers).	Fr	30	55	24	14	3	3.75	1.017
	%	23.8	43.7	19	11.1	2.4		
6- Knowledge is organized and categorized in an appropriate format that helps it be retrieved easily.	Fr	25	59	23	16	3	3.69	1.008
	%	19.8	46.8	18.3	12.7	2.4		
General mean and SD of availability degree for KS							3.60	0.910

Source: Author's preparation based on statistical analysis result

Table 5 : «Approval degree, means and SDs of KSh items in Algerian universities»

Items		Approval degree					Mean	SD
		Strongly Agree	Agree	Neutral	not agree	Strongly Disagree		
7- The University is keen to hold meetings with staff in order to exchange information and knowledge..	Fr	7	33	28	43	15	2.79	1.127
	%	5.6	26.2	22.2	34.1	11.9		
8- The University promotes communication and interaction among staff.	Fr	10	39	38	34	5	3.12	1.025
	%	7.9	31	30.2	27	4		
9- Employees have easy access to the information and knowledge they need.	Fr	10	46	27	35	8	3.12	1.100
	%	7.9	36.5	21.4	27.8	6.3		
General mean and SD of availability degree for KSh							3.01	0.886

Source: Author's preparation based on statistical analysis result

Table 6 : «Approval degree, means and SDs of KA items in Algerian universities»

Items		Approval degree					Mean	SD
		Strongly Agree	Agree	Neutral	not agree	Strongly Disagree		
10- The University is keen to provide an appropriate environment for staff to apply the knowledge acquired.	**Fr**	8	36	39	32	11	2.98	1.073
	%	6.3	28.6	31	25.4	8.7		
11- The performance of the university depends on the skills and knowledge of the staff.	**Fr**	16	63	26	16	5	3.55	1.001
	%	12.7	50	20.6	12.7	4		
12- University's knowledge helps to respond to changes in the surrounding environment.	**Fr**	10	42	41	27	6	3.18	1.015
	%	7.9	33.3	32.5	21.4	4.8		
13- Staff seek to use available knowledge to improve university performance	**Fr**	16	79	20	7	4	3.76	0.862
	%	12.7	62.7	15.9	5.6	3.2		
General mean and SD of availability degree for KA							3.36	0.769

Source: Author's preparation based on statistical analysis result