IMPROVEMENT OF KNOWLEDGE MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS

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Knowledge management is a relatively recent phenomenon in its scope, but it has emerged on the wave of growing interest in changing the conventional/ traditional format of knowledge management. At the beginning of the last decade, many organizations found that they could no longer keep up with the increasing complexity of their tasks. Managers could not simply do what they were used to doing in the rigid production hierarchy. To do what they were supposed to do, they needed access to knowledge, but they also needed new skills to acquire it. The transmission of knowledge through successive "transfers" is an essential part of the concept of the "technological society" in which we live today, including educational institutions. The aim of this article is to demonstrate, through a documentary analysis, the usefulness of integrating knowledge management concepts and practices into the activities of higher education institutions in order to improve performance and simplify work processes.

Key words: *knowledge management, educational institutions, educational management, institutional management.*

1. INTRODUCTION

The information brings to the fore two important components that are intertwined in the definition of knowledge management, namely the evaluation of knowledge and the appropriate management of human capital. Knowledge management is a branch of management that deals with knowledge actions such as organizing, blocking, filtering, collecting, storing, sharing, disseminating, and using knowledge objects identified as information, data, experiences, assessments, analyzes, and initiatives. Knowledge management is about capturing knowledge where it is created, sharing it with people, and applying it in a productive process. Because knowledge management focuses on identifying knowledge and formally sharing and reusing it, it enables problem solving, dynamic learning, strategic planning, and decision making in an efficient

and effective manner. The research method used is the analysis of documents from external secondary sources.

Although universities are a kind of knowledge repository, according to recent studies, the knowledge developed in academic institutions is not adequately preserved or collected, and most of the content developed in academic institutions is unknown to the general public (Galgotia & Lakshmi, 2022). The article aims to raise awareness about the importance of appropriate knowledge management in higher education. [3]

2. THEORETICAL FRAMEWORK

2.1. Knowledge management theoretical framework

According to David and Dominique (2013), there are 4 changes that have influenced the knowledge society:

- the increasing dominance of intangible capital - the micro- and macroeconomic levels;
- innovation should be seen as a multifaceted activity in the life of the knowledge society;
- the use of knowledge tools and their impact on society;
- increase in the production of knowledge.

The two authors describe these four changes by noting other princes and the fact that they are produced with different force and speed in the different economies and regions of the world. This creates economic stratification based on the ability and speed of absorption of the four changes in national or regional economies. The trigger for the four changes lies in the social developments that have led to the demystification of production and services by changing the rules of the game of economic competition.

Fig. 1 Knowledge management processes and applicability (Source:*https://www.teamcarney.com/capabilities/knowledge-management-solutions/*)

The most competitive companies are not those that offer a unique product in thousands of copies, but those that are able to offer products that can be adapted to the needs of different customers, up to unique products for each customer. The theoretical models of knowledge

management present work patterns and thought patterns that, when understood and applied, lead to a better valorization of knowledge in organizations. Among the numerous approaches in the field, we have selected two models that are considered fundamental in the field of knowledge management: the dynamic process of knowledge creation (SECI) proposed by Ikujiro Nonaka and the intellectual capital model, with variants proposed by different authors. Among the most appreciated authors in this field are the Japanese Ikujiro Nonaka and Hirotaka Takeuchi, who developed the SECI model. This model is a description of the dynamic creation of knowledge in organizations and its practical use. The model, originally developed by Nonaka and Takeuchi, was supplemented by Toyama and Konno to make it more applicable to organizations. The name of the model is an abbreviation for the four stages to be developed for the creation and valorization of knowledge through applications: S — Socialization, E — Outsourcing, C — Combination, I — Internalization. To better understand the model, it is necessary to define the two types of knowledge that Nonaka used in the development of the model: explicit knowledge and tacit knowledge. [5]

Explicit knowledge can be analyzed from a dual perspective: Words and numbers. Both perspectives may involve assumptions, intuitive responses, and mental connections that are difficult

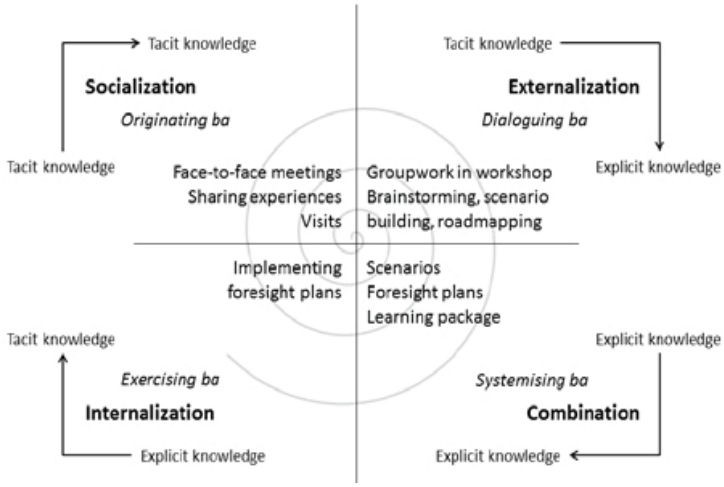

Fig. 2 SECI model created by Ikujiro *and Hirotaka, theoretical perspective*
(Source: *Nonaka, Toyama, & Konno, 2000*)

to formalize and express, leading to difficult exchanges. They are often the result of practical experience and learning through trial and error. One of the philosophical ideas behind the model is that ”we can know more than we can say”. Based on the differences between tacit and explicit knowledge, the basic scheme of the model includes four stages, as shown in Figure no. 2:

Socialization may be the process by which tacit knowledge is passed on by employees through their experiences. Since tacit knowledge is contextual, the key to acquiring it is to share the same experiences and collaborate with those who have it. The best example is the traditional master-disciple relationship. The teacher learns the profession by directly imitating the actions of the master and improving his knowledge through practice, not through words or writings. The quality of the relationship between those who share common experiences, whether it is the student and the master, the employee and the customer, or the boss and the subordinate, is a fundamental factor in promoting knowledge creation in the organization.

Outsourcing is the process of expressing tacit knowledge in the form of explicit knowledge. Of the four steps, it is the most important in knowledge creation because it leads to the emergence of new knowledge and concepts. When tacit knowledge becomes explicit, it crystallizes into forms that can be communicated to others and form the basis for the emergence of other knowledge. An example of outsourcing is improvement meetings, where employees primarily try to identify and name the problems they face. This leads to new knowledge about the situation they are facing. The success of transformation depends on the use of methods to verbalize experiences shared by members of a community or small group. Metaphors, analogies, or schemas are often used to crystallize new ideas and concepts.

In the combination phase, the explicit knowledge gained is linked and filtered to yield only those categories that can be translated into lessons learned to ensure organisational sustainability. Reconfiguration of existing knowledge through sorting, collecting, combining, and classifying leads to the creation of new knowledge. An illustrative example is that of an analyst who collects financial data and reports on the company’s finances. The synthesis of the report represents new knowledge for the decision maker to use in decision making. [1]

Internalization is the process of transforming explicit knowledge into tacit knowledge. It is achieved by embedding explicit knowledge in actions, practices, or simulations of concrete situations. Therefore, the

process is also referred to as learning by-doing. Through internalization, explicit knowledge is disseminated throughout the organization and the creation of a new set of tacit knowledge leading to the resumption of the entire knowledge production cycle is initiated. For this reason, the core of the model proposes a spiral, which proposes the continuous resumption of the SECI cycle, resulting in the continuous growth of the organization's knowledge.

2.2. Educational management theoretical framework

Higher education is organized in universities, academies of studies, institutes, colleges of higher education, hereinafter referred to as institutions of higher education, or universities that have received provisional accreditation or accreditation. Higher education institutions are educational institutions that carry out educational activities based on study programs provisionally approved or accredited in accordance with the law, as well as education and training programs at the college level, based on the principle of quality and correlation of the educational offer with the labor market.

Management is the science, art and technique of planning, administering, organising and controlling the elements of a system, a particular field of activity. The term was first used in business and then extended to all areas of activity, and it has been used to develop specific characteristics (e.g., personnel management, priorities, stress, etc.). However, it has also found its own expression in every other field (military, medicine, education, etc.). Education is directly responsible for the success of future generations. A predictable correlation of the educational offer with the demands and dynamics of the labour market affects the professional integration of human resources and the sustainability of fundamental areas for the Romanian economy and society.

The management theory applied in the field of education contributes to this by providing the scientific basis for a global approach to achieve the goals of the educational system. Educational management has clear and hierarchical goals, principles of efficiency and quality, specific functions, strategic elements, affirmation of creativity in solving situations, interdisciplinary and systematic approach, basic research. It differs from general management by specific reporting of educational content, content, trained human resources, information, communication and participation of stakeholders through specific educational strategies (based on motivation, responsibility, cooperation, logic, affectivity).

Educational management involves the mastery of theory, methodology, principles, a specific mentality, a right way, a leadership art and learning resources.

3. KNOWLEDGE MANAGEMENT AND ITS IMPACT ON ROMANIAN UNIVERSITIES

Knowledge management focuses not only on the acquisition and transfer of knowledge, but also on how this knowledge is used to achieve a competitive advantage. It highlights the difference between the learning process and the simple acquisition of knowledge. Learning is about changing behavior in the sense of creating the ability to do something new, to perceive the world and relationships with it differently, to expand the spirit of innovation. Knowledge utilization refers to the transformation of knowledge into new products and services. Innovation is both a social process and the result of personal transformation. Transforming individual imagination through an iterative process into values that can be shared contributes to the development of employees' sense of belonging to the company and fosters innovation. To realize an innovative project, the individual vision must match intelligence, competence and collective will. Innovation can be understood as a process of eliminating routine and outdated strategies to enable the development of organizational creativity. [6]

In universities, knowledge development refers to the accumulation of new knowledge to innovate, adapt, and achieve organizational goals. The forms of knowledge accumulation differ according to the entity that accumulates the knowledge. The human resource accumulates knowledge through socialization (human interaction), explicit internalization (formal or informal learning), implicit internalization, implementation of work processes or through practice), generation (analysis and mental synthesis). Artificial intelligence systems acquire knowledge by processing new facts in the context of an original knowledge base and mindset. The organization, considered as a learning organization, changes its range of possible actions in a given context. The speed at which an organization learns to anticipate and adapt to developments in the environment is a source of competitive advantage. The organization gathers from the outside by hiring (hiring a consultant and using his expertise to gain new knowledge) or buying (buying a company for the knowledge it contains). From the inside, the organization gathers knowledge by disseminating knowledge from a particular component source and

expanding existing knowledge sources.

In the academic environment, an important aspect of knowledge development is the process of transforming tacit knowledge (from the practical environment) into tacit knowledge (related to human resources) through the exercise of work processes. The efficiency of this process is determined by the individual's mental model or mindset, the individual's prior knowledge, and the practical context. The role of each of these factors can be derived from the following analogies: The practical context corresponds to the raw material supplier; the mental model corresponds to the technology of raw material transformation; and the prior knowledge has the role of a catalyst that enables the transformation of the raw material.

The mental model can be regarded as a sum of knowledge and the most important factor in the knowledge development process. In knowledge management theory, two types of mental models are distinguished: linear thinking and systemic thinking. Studies on the two mental models show that systemic thinking enables high efficiency and effectiveness of human decisions in professional or social life. In the systemic approach, a system of decisions is built to change the system, which can compensate for the negative effects of decisions made only for a part of the system in the case of linear thinking. The previous knowledge can be characterized by scope, structure and quality. The larger the scope, the larger the platform on which new knowledge can be built. The structure or variety of knowledge contributes to the building of deeper knowledge. The quality of knowledge reflects its ability to respond more effectively to practical needs. The better the knowledge is matched to practical needs, the more intensive the accumulation process. The practical context is intended to provide information or knowledge that is the substance needed to acquire new knowledge. Through its dynamics, the practical context leads to new connections or new knowledge. [4]

Universities must adapt to the times and create new professions, such as knowledge transfer experts: people who extract knowledge from various sources, organize it so that everyone can use it, and update it regularly; knowledge management strategies: people who develop strategies for the knowledge base - audit the sources of knowledge, determine the requirements arising from the assumed mission, goal and objectives, strategically plan the necessary knowledge, determine the implementation modalities, etc.; knowledge designers: people with similar concerns to specialists who have been developing rules and facts

for expert systems for two decades. In the new profession, knowledge designers aim to design the rules and the knowledge base at the level of the whole organization; knowledge management officers: responsible for creating the knowledge infrastructure, its structures and processes, and an organizational culture focused on learning and knowledge acquisition (Figure no. 3).

(Andrei, Zait, Zbuchea & Vătămănescu, 2019), both those in leadership positions and regular employees, in educational institutions it is a challenge to identify the key employees who possess important knowledge. These individuals, in fact, constitute a true knowledge architecture of an organization and are formally or less formally capable of providing the essential functions

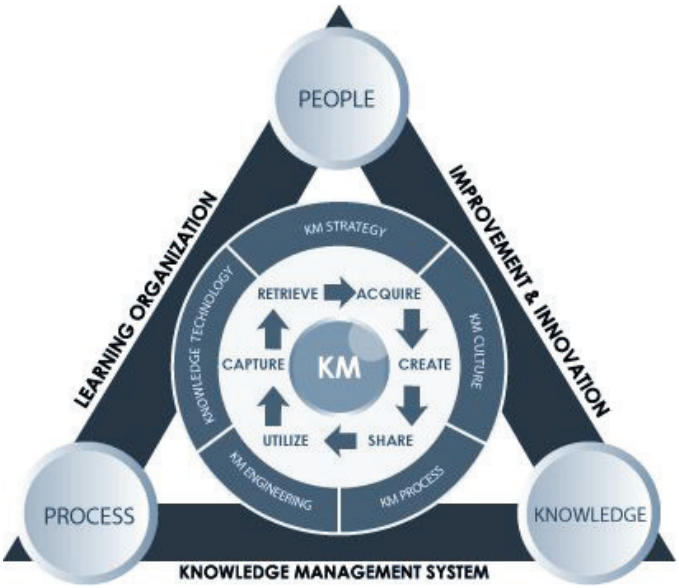

Fig. 3 Knowledge management pyramid, people-process-knowledge
*(*Source:*https://ilpilotaprivato.it/mod/page/view.php?id=42)*

Every college has a wealth of knowledge (individual staff experience, practices, methods, documentation, etc.) that, if used effectively, can make a significant contribution to the success of the organization. Just as in the private sector knowledge management largely depends on employees for managing information and knowledge throughout the creative cycle-from creation to destruction/ consumption-and thus helping organizations to use their assets wisely and to their fullest potential and to capitalize on their investments (which are not necessarily calculated in monetary terms).

Creating the capabilities required to meet an organisation's development needs requires a minimum set of prerequisites: committed employees, the decision to initiate the knowledge process, and the appropriate tool (technology) to be used in accordance with the company's strategies for the goals set. The easiest way to fail in this initiative is to try to implement these new technologies in an old format, which will inevitably lead to unsatisfactory results. Other challenges in integrating knowledge into the organisational loop have been highlighted in studies that focus on the ability to predict whether the desired integration process will be easy or difficult to implement. For example, the optimal integration of knowledge from individuals into units depends on the extent to which knowledge can be learned, while the ease of implementation depends on the extent to which knowledge is tacit. Implementation challenges arise when these two dimensions do not align (McIver, Fitzsimmons & Lengnick-Hall, 2019). [2]

4. CONCLUSIONS

It is important to remember that knowledge management does not mean managing for knowledge's sake, but that the overall goal is to create value and leverage to improve and refine the organization's competencies to achieve its goals. The values of the learning organization and its competitive advantage derive from continuous learning, both individually and collectively. In a learning organization, every experience is seen as a learning opportunity and great emphasis is placed on training members. The learning organization concept focuses on group-level learning, that is, the way the team thinks and the way people work together. This type of approach promotes collaboration, engagement, access to knowledge and talent, and consistent organizational behavior. Such a description of an organization's social capital suggests investing appropriately, giving people space and time to connect, allowing them to share their goals and beliefs, providing opportunities and fair rewards, and inviting people to participate authentically, not just to be present. Also, the establishment of knowledge about the work of organizations and the actors within them means that the demarcation between the theoretical and the applied side in the areas related to this development (knowledge management, organizational learning, intelligent systems) remains purely conventional. New concepts and the development of solutions, initially linked to an operational vocation, are integrated into projects, transparently exposed to community validation, including at the international level, and transformed into organizational

models, tools and practices; their innovative dynamism testifies that knowledge means, above all, originality in diversity.

The need to integrate the concept of knowledge management in organizations is emphasized in the literature. Among the basic arguments are: the rapid pace of change and disruption caused by the global context characterized by constant dynamics, economic, security and health crises (Usman, Zaveri & Hamza, 2021).

The education sector, as a compass for society, is directly responsible for providing society with the best prepared human resources, characterized by adaptability and flexibility, able to face the future challenges of the labor market. A measure of this performance of educational institutions is the demonstration of their ability to ensure their own sustainability, to integrate the knowledge and experience gained into documents and practices, and to disseminate it more widely.

ACKNOWLEDGEMENT

This article is original research and has not been published elsewhere.

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