

## A VIEWPOINT ON THE CURRENT STATE OF KNOWLEDGE MANAGEMENT INSTRUMENTS

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### Abstract

*Knowledge management is seeking solutions to harmonize the objectives of organizations of the human group, which need to rationalize, to provide policy makers and to implement. This article aims to provide readers with an introduction to knowledge management basic definitions, theories and concepts such as types of knowledge, the differences between data, information and knowledge, etc, are given. But, why we need a knowledge management ? This article justified the need for companies to focus management efforts on their intangible elements and provides the five enabling conditions for knowledge creation.*

**Keywords:** *knowledge, tacit knowledge, explicit knowledge, data, information, wisdom*

### Introduction

In today's new economy, learning and knowledge have become key success factors for international competitiveness with the result that intangible and immaterial resources have overtaken physical and tangible assets in order of importance. In particular, knowledge has become the primary resource for power, prestige and creating wealth in the modern economy and society. The generation, acquisition and use of knowledge have turned out to be vital in sustaining economic, social and cultural development. This applies equally to individuals, organizations, public sector bodies, companies, whole regions and even states. This is reflected by a dramatic rise to the top of the policy agenda of knowledge-related goals. Hence, the Lisbon Council set the ambitious strategic goal of making the EU the most dynamic, competitive, sustainable knowledge-based economy.

In research related to management a new discipline has appeared – knowledge management, which reflects issues coming from human resources management, organizational learning, information management, change management, brand and reputation management, performance measurement and valuation, innovation management, business process management, etc.

Historically, KM has been aimed at a single group of company managers, and has emerged as an executive information system containing a portfolio of tools such as access to databases, news source alerts, and other information – all aimed at supporting the decision making process of the company managers. More recently, however, KM systems are increasingly designed for entire organizations, thus providing all employees access to information and knowledge, necessary for their work.

#### 1. Basic definitions: Data, information and knowledge

The academic community has spent years discussing and clarifying what constitutes data, information and knowledge. Depending on the background of the author and the specific aims he pursues there emerges variations in the definitions and the basic terminology used.

Data are described as a “set of discrete, objective facts about events... and is most usefully described as structured records of transactions”<sup>1</sup>. The authors further consider that “information has meaning... Not only does it potentially shape the receiver; it has a shape: it is organized to some

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<sup>1</sup> Davenport T., Prusak L., - “Working knowledge: How Organizations Manage What They Know”, Harvard Business School Press, 1998, p. 7.

purpose.” Subsequently, knowledge is defined as follows: “Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experience and information. In organizations, it often becomes embedded not only in documents or repositories but in organizational routines, processes, practices, and norms.”

From a business practice perspective, the KM terminology is defined in (Bergeron, 2003):

✓ Data are numbers. They are numerical quantities or other attributes derived from observation, experiment, or calculation;

✓ Information is data in context. Information is a collection of data and associated explanations, interpretations, and other textual material concerning a particular object, event, or process;

✓ Metadata is data about information. Metadata includes descriptive summaries and high-level categorization of data and information. That is, metadata is information about the context in which information is used;

✓ Knowledge is information that is organized, synthesized, or summarized to enhance comprehension, awareness, or understanding. That is, knowledge is a combination of metadata and an awareness of the context in which the metadata can be applied successfully<sup>2</sup>.

Becerra-Fernandez et al.(2004) provide the following definitions:

✓ Data comprises facts, observations, or perceptions. They represent raw numbers or assertions;

✓ Information is processed data. It could be described as a subset of data, only including those data that possess context, relevance and purpose. Information involves manipulation of raw data;

✓ Knowledge is a justified true belief (Nonaka and Takeuchi). It is different from data and information. Knowledge is at the highest level in a hierarchy with information at the middle level, and data to be at the lowest level. It is the richest, deepest and most valuable of the three. It could be described also as information with direction<sup>3</sup>.

Moreover, the authors outline a subjective view on knowledge – as State of

Mind or Practice, and an objective view – as objects, access to information or capability.

Mertins et al. (2003) consider the hierarchy from data to information, knowledge and wisdom<sup>4</sup>. They stress that typical questions for data and information are: who, what, where, when, while for knowledge are: how? and why? From practical point of view they associate knowledge with the scientific knowledge, from one side, and with the experiences knowledge, from the other. Further, while discussing the nature of knowledge, Mertins et al. (2003) point the method for acquiring scientific knowledge, that is developed using scientific methodologies and standards, tested and validated from the research community, and explicitly described in research papers, reports and books.

Coakes (2003) relates data encoded in some medium and transmitted in any form, e.g. waves, electrical current, etc., which we receive through our senses – vision, hearing, smell, touch, taste.<sup>5</sup>

The difference between data, information and knowledge is considered also in (Herbert, 2000). Data are facts; information is processed data; knowledge represents the collection of events,

<sup>2</sup> Bergeron B. – “Essentials of Knowledge Management”, John Wiley & Sons, Inc Hoboken, New Jersey, 2003, p.18.

<sup>3</sup> Becerra I., Fernandez J. – “Locating Expertise at NASA”, in Knowledge Management Review, Vol.4, No.4, 2001, p.65.

<sup>4</sup> Mertins, K., P.Heisig, J.Vorbeck, -“Knowledge Management – Concepts and Best Practices”, Springer Verlag, Berlin-Heidelberg, 2003, p.63.

<sup>5</sup> Coakes, E., - “Knowledge Management: Current Issues and Challenges”, Idea Group Publishing, 2003, p.51.

experiences and feelings about an organization's business that helps it to rationalize its current situation and develop plans/products for the future<sup>6</sup>. Further, Blumentitt et al. (1999) makes a clear distinction between information and knowledge on the basis that information can be captured, stored and transmitted in digital form, while knowledge can only exist in an intelligent system<sup>7</sup>.

As Coakes (2004) summarizes, in Western philosophy knowledge is seen as abstract, universal, impartial and rational. It is considered as a stand-alone artifact that could be captured in technology and which will be truthful in its essence<sup>8</sup>. As Lehaney et al. (2004) stress, this view is evident in the works of the ancient Greek philosophers where the concept of knowledge originates with people<sup>9</sup>. Plato and Aristotle, for instance, were quite concerned about the nature of knowledge and what distinguishes knowledge from belief. Plato put forward the idea that correct belief can be turned into knowledge by fixing it through the means of reason or a cause. Aristotle thought that knowledge of a thing involved understanding it in terms of the reasons for it. In modern terms 'to understand' is to be fully aware of not only the meaning of something, but also its implications.

Gavigan et al. (1999) relates knowledge with learning. Knowledge is defined as "a state or potential for action and decision in a person, organization or a group"<sup>10</sup>. Subsequently, learning is the process which causes changes in this state - change in understanding, decision or action.

People's minds follow a certain pattern of thought – develop knowledge according to their own pre-set formulae or methods. The experiences give people memories and values which guide them and therefore set up the conditions within which their minds operate. Knowledge is socially constructed as by accumulating new knowledge there is a conscious choice, or discard, of the knowledge of others. It is not a stand-alone artifact or universal truth.

Knowledge is used interchangeably with intellectual capital by Bukowitz et al. (1999), and is defined as "anything valued by the organization that is embedded in people or derived from processes, systems or the organizational culture – individual knowledge and skills, norms and values, databases, methodologies, software, know-how, licenses, brands, and trade secrets"<sup>11</sup>.

Knowledge resources vary for particular industries and applications, but they generally include manuals, letters, summaries of responses to clients, news, customer information, competitor intelligence, and knowledge derived from work processes.

Liebowitz (1999) highlights that knowledge can be defined as undeniable facts and objective truths as well as an institutionalized, socially constructed enactment of reality. He further refers to Davenport and Prusak who provide a working definition of knowledge that is extended to include wisdom, the intellectual capital of organizations. Intellectual capital, or organizational wisdom, is the application of collective knowledge within the organization<sup>12</sup>. This projection is depicted in **Figure 1** above.

<sup>6</sup> Herbert, I., - "Knowledge is a Noun, Learning is a Verb", in *Management Accounting* 2(78),2000, pp 68-72.

<sup>7</sup> Blumentitt, R., Johnston, R., - "Towards a Strategy For Knowledge Management", in *Technology Analysis & Strategic Management* 3(11),1999, pp.287-300.

<sup>8</sup> Coakes, E., - "Knowledge Management: A Primer", *Communications of the Association for Information Systems*, Volume 14, 2004, pp 406-489.

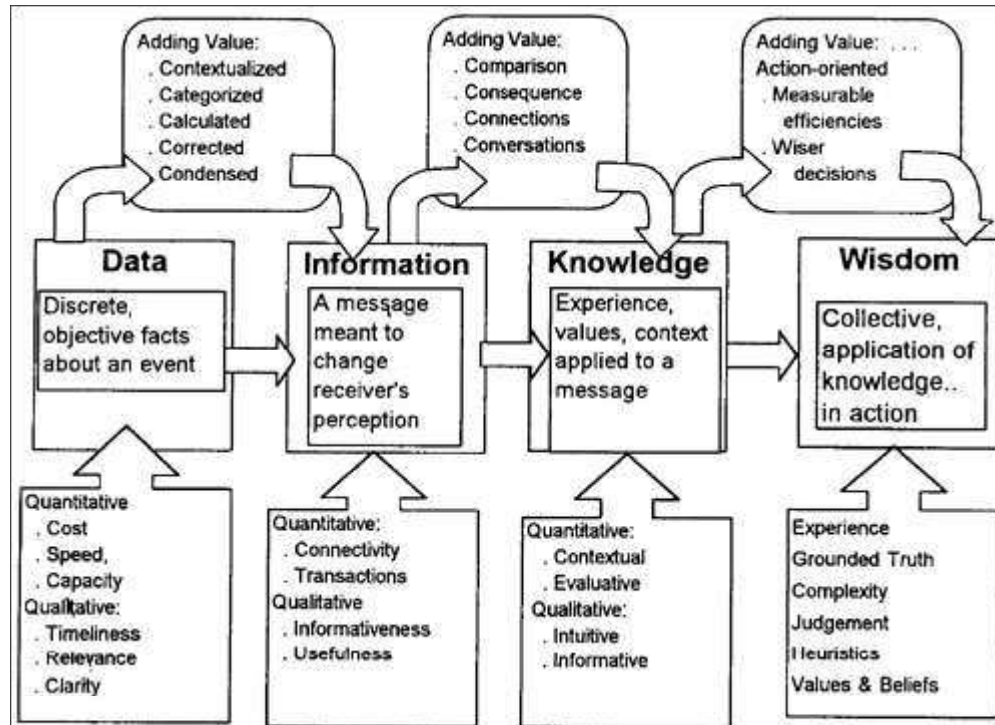
<sup>9</sup> Lehaney B., Clarke S., Coakes E., & Jack G., - "Beyond Knowledge Management", Idea Group Publishing 81, 2004.

<sup>10</sup> Gavigan, J., M. Ottisch, S.Mahroum, - "Knowledge and Learning: Towards a learning Europe", *Futures report series* 14, EC JRC, 1999, p.34.

<sup>11</sup> Bukowitz, W., R.Williams, -"The knowledge management", Prentice Hall, 1999, p.23.

<sup>12</sup> Liebowitz, J. (1999), - "Knowledge management Handbook", CRC Press LLC, 1999, p.18.

Figure 1: The knowledge progression



Bennet et al. (2004) provides an interesting visual understanding of “knowledge” – with a bite of a red apple. He points out that “while all that we are doing in information technology and information management is critically important, it is not until the bite (of information) is taken, chewed, digested, and acted upon that it becomes knowledge”<sup>13</sup>.

## 2. Classifications of Knowledge

While considering knowledge, researchers have distinguished two main categories: explicit and tacit knowledge. For example, in (Polanyi, 1966) they are considered as explicit knowledge, which can be articulated in formal language and transmitted among individuals, and tacit knowledge, personal knowledge embedded in individual experience and involving such intangible factors as personal belief, perspective, and values<sup>14</sup>. Later, Tiwana (1999) specifies that tacit knowledge is personal, context-specific knowledge that is difficult to formalize, record, or articulate; it is stored in the heads of people. The tacit component is mainly developed through a process of trial and error encountered in practice. On the other hand, the explicit knowledge can be codified and transmitted in a systematic and formal language: documents, databases, webs, emails, charts, etc<sup>15</sup>.

The idea of different forms of knowledge was considered by two of the most influential thinkers in KM, Nonaka and Takeuchi. They state in (Nonaka et al., 1995) that “tacit knowledge is highly personal and hard to formalize, making it difficult to communicate or share with others. Subjective insights, intuitions, and hunches fall into this category of knowledge. Tacit knowledge is

<sup>13</sup> Bennet, A., D.Bennet – “Organizational survival in the new world. The intelligent Complex Adaptive System”, in Butterworth-Heinemann, US, 2004, p.14.

<sup>14</sup> Polanyi, M. – “The Tacit Dimension”, London: Routledge & Kegan Paul, 1966.

<sup>15</sup> Tiwana, A. – “The Knowledge Management”, Toolkit, Prentice Hall, 1999, p.171.

deeply rooted in an individual's action and experience, as well as in the ideas, values, or emotions he or she embrace"<sup>16</sup>. In a comparison, explicit knowledge can be easily processed by a computer, transmitted electronically or stored in databases. The specific of both type of knowledge is given in the **Table 1**:

**Table 1:** *Tacit and Explicit types of knowledge*

<b>Tacit Knowledge</b>	<b>Explicit Knowledge</b>
Knowledge of experience (body skills)	Knowledge of rationality (mind)
Simultaneous knowledge (here and now)	Sequential knowledge (there and then)
Analog knowledge (practice)	Digital knowledge (theory)

Nonaka et al. (1995) have also considered four models for knowledge conversion (see **Table 2**). Socialization is connected with theories of group processes and organizational culture and is a process of sharing experiences, whereas combination has its roots in information processing and is a process of systemizing concepts into a knowledge system. Internalization is closely related to organizational learning and is a process of embodying explicit knowledge into tacit knowledge, while externalization is the opposite – a process of articulating tacit knowledge into explicit concepts.

**Table 2:** *Knowledge conversion models*

<b>Knowledge Conversion</b>	<b>To:</b>	
<b>From:</b>	<b>Tacit Knowledge</b>	<b>Explicit Knowledge</b>
<b>Tacit knowledge</b>	Socialization (Sympathized K)	Externalization (Conceptual K)
<b>Explicit knowledge</b>	Internalization (Operational K)	Combination (Systemic K)

As given in (Bukowitz et al., 1999) "Explicit knowledge" is knowledge that individuals are able to express fairly easily using language or other forms of communication – visual, sound, movement. "Tacit knowledge" is knowledge that an individual is not able to articulate and thereby convert to information<sup>17</sup>. Tacit knowledge is more useful to an organizational system if it can be transferred to others so they too can use it. However, tacit knowledge cannot be communicated or passed onto others easily since it is acquired primarily through experience and is not easily expressed in words. Transfer of explicit knowledge is relatively straightforward. Transfer of tacit knowledge can be achieved either by first converting it into explicit knowledge and then sharing it, or by using approaches in which it is never made explicit.

In Lehaney et al. (2004) explicit and tacit knowledge are considered as the boundaries of the continuum of communication. It is stated that the communication process may incorporate a variety of techniques ranging from reports, visual identity, correspondence, and electronic communications, but there is no guarantee that the intended message has been received and understood. Social conditioning, cultural differences, and other external influences will always impact to convert the

<sup>16</sup> Nonaka, I., H.Takeuchi – "The knowledge creating company: How Japanese Companies create the Dynamics of Innovation", Oxford, Oxford University Press, 1995, p.62.

<sup>17</sup> Bukowitz, W., R.Williams – "The knowledge management", Prentice Hall, 1999, p.21.

message into a meaningful translation and context for the individual receiving, or not at all as the case may be<sup>18</sup>.

In (Bergeron, 2003) human capital is considered for KM purposes as being composed of three kinds of knowledge: tacit, implicit, and explicit knowledge. Subsequently, the three categories are distinguished as follows:

- ✓ Tacit knowledge is knowledge that is ingrained at a subconscious level and therefore difficult to explain to others;

- ✓ Implicit knowledge, like tacit knowledge, typically is controlled by experts. However, unlike tacit knowledge, implicit knowledge can be extracted from the expert—through a process termed knowledge engineering;

- ✓ Explicit knowledge can easily be conveyed from someone proficient at a task to someone else through written or verbal communications. Unlike tacit and implicit knowledge, explicit knowledge often can be found in a book or operating manual.

Lei (1997) sees tacit knowledge as embedded in the organization's processes, dynamic routines and internal communication paths and provides a firm-specific resource to sustain competitive advantage. Explicit knowledge is often product rather than organizationally embodied. But tacit embedded knowledge is difficult to learn without close interaction and collaboration with the strategic partner<sup>19</sup>.

Herbert (2000) considers that explicit knowledge is transparent and can be codified, categorized and stored, while tacit knowledge resides in individuals<sup>20</sup>.

Further, Tsoukas (2003) defines the structure of the tacit knowing in three aspects: the functional, the phenomenal and the semantic. The functional aspect consists of “from-to” relations of particulars to the focal target, based on the awareness for attending something. The phenomenal aspect involves the transformation of subsidiary experience into a new sensory experience. Finally, the semantic aspect is the meaning of subsidiaries, which is the focal target on which they bear<sup>21</sup>.

According to Coakes (2004), explicit knowledge tends to be considered as anything that can be documented, archived or codified. It can be contained within artifacts such as paper or technology. As a result it is able to be shared. Many authors even argue that explicit knowledge is not knowledge at all, but information or data. Tacit knowledge is retained by people in their head, it is the product of their minds' experiences and learning. It can be shared but in a less tangible form. In some cases it can be shared through the use of e-mail and chat-rooms or instant messaging as people tend to use these technologies informally, like a conversation, but mostly it is shared through story-telling and in conversations. It is very difficult to articulate and very difficult to know what you know in a tacit way - as often you only discover your knowledge when you have a need to apply it. Or it may rely on multiple senses to be expressed and thus is learnt by experience. Organizations need to know what they know and also to identify where their knowledge gaps lay so that they can be addressed. Explicit knowledge is relatively easy to track and develop, tacit is obviously more difficult to track and develop. Tacit knowledge may also involve more than the logical intelligence aspect of our brains and it may be that tacit knowledge is developed through the application of our multiple intelligences, (everyone uses some of, or a combination of) - logical, linguistic, interpersonal, intrapersonal, musical, spatial, or kinesthetic means to absorb knowledge.

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<sup>18</sup> Lehaney B., Clarke S., Coakes E., & Jack G. – “Beyond Knowledge Management”, Idea Group Publishing, 2004, p. 81.

<sup>19</sup> Lei D.T. – “Competence-Building, Technology Fusion and Competitive Advantage: The Key Roles of Organizational Learning and Strategic Alliances”, in *International Journal of Technology Management* 2/3/4 (14), 1997, pp 208-237.

<sup>20</sup> Herbert, I. – “Knowledge is a Noun, Learning is a Verb”, in *Management Accounting* 2(78), 2000, pp 68-72.

<sup>21</sup> Tsoukas, H., Vladimirou E. – “What is Organizational knowledge”, in *Journal of Management Studies*, Nov. 2003, Blackwell publishers, Oxford.

Pfeffer et al. (1999) state that tacit knowledge is transferred via social process, e.g. stories, gossip, observation - social interaction. Besides, up to 70% of workplace learning is informal. When knowledge is transferred by stories and gossip instead of solely through formal data systems, it comes along with information about the process that was used to develop that knowledge. When just reading reports or seeing presentations, people do not learn about the subtle nuances of work methods – they learn about failures, tasks that were fun, tasks that were boring, people who were helpful, and people who undermined the work<sup>22</sup>.

Quinn et al. (1996)<sup>23</sup> and Nonaka et al. (1995) suggest the following typology of knowledge based on purpose and use:

- ✓ Know-what - This is the fundamental stage where the organization makes use of IT of some kinds to collect, gather and store the cognitive type of knowledge. In simple words, they just know what they know, but don't mean that they know when and how to apply such knowledge solve their problem;

- ✓ Know-how - It represents the ability to translate bookish knowledge into real world results. In this stage, they know when to use which knowledge to solve real-world, complex problems;

- ✓ Know-why - It goes beyond the know-how stage where they can use known rules and apply them well. In addition, they have in-depth knowledge of the complex slush of cause-and-effect relationships that underlie. This knowledge enables individuals to move a step above know-how and create extraordinary leverage by using knowledge, bringing in the ability to deal with unknown interactions and unseen situations;

- ✓ Care-why - It represents self-motivated creativity that exists in a company. This happens to be the only level that cannot be supported by knowledge management system.

Becerra-Fernandez et al.(2004) differentiate the following types of knowledge - individual, social, causal, conditional, relational and pragmatic; embodied, encoded and procedural.

Hildreth et al., (2000) differentiate two forms of knowledge: domain knowledge, which is relatively easily replaced; knowledge of how work is done in practice, which is not easily replaced. Further, they differentiate between hard and soft knowledge. Hard knowledge is equivalent to domain knowledge. Soft knowledge encompasses experience, work knowledge, tacit knowledge<sup>24</sup>.

There is a wide body of literature that suggests that there are “softer” types of knowledge (Hildreth et al., 1999). This knowledge is less quantifiable and cannot be captured, codified and stored so easily. Examples of such knowledge might include tacit knowledge that cannot be articulated, internalized experience and automated skills, internalized domain knowledge and cultural knowledge, embedded in practice. Soft knowledge is acquired through the work practice and consequently when an organization loses staff, the soft knowledge that is lost cannot easily be replaced. As companies have cut out layers of middle management they find that they have lost the people who knew who to approach for specific problems; how to deal with different people and who best to use for different tasks. In short, people who knew how to make things happen. The loss of such personnel creates a problem for organizations as they move to cheaper, less knowledge-rich, workers. Soft knowledge is embedded in the practices of, and relationships within, the group. Secondly, the source of the legitimacy of the knowledge differs from hard knowledge. “Hard knowledge” is accepted as legitimate by virtue of the formal authority of the designer of the system or the author of the procedure. Soft knowledge becomes accepted by virtue of informal authority and

<sup>22</sup> Pfeffer, J., Sutton, R.I. – “Knowing "What" To Do Is Not Enough”, in *California Management Review* 1(42), 1999, pp 83-107.

<sup>23</sup> Quinn, J.B., Anderson, P. and Finkelstein, S. - “Managing Professional Intellect: Making the Most of the Best” in *Harvard Business Review*. March-April 1996.

<sup>24</sup> Hildreth P., Kimble C., Wright P. – “Communities of Practice in the Distributed”, in *International Environment Journal of Knowledge Management* 1(4), 2000, pp 27-38.

consensus within the group. Although newcomers might have a degree of hard domain knowledge, their soft knowledge only develops as they move from being newcomers to fully-fledged members of the community.

Lei (1997) argues that the knowledge base that lays the foundation of an organization's core competence is comprised of easily replaced domain knowledge and the less easily replaced knowledge of how work is carried out. This first form of knowledge can be called fluid knowledge because it is capable of flowing around an organization. Flow can be achieved even more effectively when the organization's social and technical systems are linked by means of information and communication technologies (ICT). The second form of knowledge can be characterized as sticky knowledge because it is inseparable from knowing how work is carried out and it is related to the processes undertaken. The signifiers fluid and sticky are more appropriate for this application than the descriptors explicit and tacit. Sticky knowledge is glued onto the experiences of individuals and may remain unarticulated formally, but it is characterized by being difficult to replace. The replacement of such knowledge is problematic because it is not easily surfaced in order for it to be codified, stored, or transmitted. It is cumulative to personal experience and thus unique to the individual's understanding. It resides in the social domain of the organization's socio-technical system. Its best form of transfer from individual to individual, tends to be through story-telling and in the practice of communities.

Blumentitt et al. (1999) examines classifications of knowledge and provides 4 categories of knowledge:

- ✓ Codified knowledge = information;
- ✓ Common knowledge = routines and practices - explicit knowledge;
- ✓ Social knowledge = relationships and cultural matters;
- ✓ Embodied knowledge = tacit knowledge - that knowledge deriving from experience, skills, competences, training, practice accumulated during a lifetime.

Another way to look at forms of knowledge, which may be more helpful to organizations than tacit versus explicit distinction, is as follows (Bukowitz et al., 1999):

- ✓ known knowledge: knowledge that the individual knows that she/he knows;
- ✓ unknown knowledge: knowledge that the individual does not know she/he knows because it has become embedded in the way she/he works.

Liebowitz (1999) stresses that organizational knowledge is knowledge that is shared among organizational members. Although organizational knowledge is created via individual knowledge, it is more than the sum of individual knowledge. Complete organizational knowledge is achieved only when individuals keep modifying their knowledge through interactions with other organizational members. Second, organizational knowledge is distributed. Organizational knowledge is created and managed by individuals who act autonomously within a decision domain.

Tsoukas (2001) defines further organizational knowledge to be the capability of members of an organization to draw distinctions in the process of carrying out their work, in particular concrete contexts, by enacting sets of generalizations, whose application depends on historically evolved collective understanding and experiences.

Von Krogh et al. (1995) quoted in (Mertins et al., 2003) propose 7 categories of knowledge that has to be used in management and organizational theory - tacit, embodied, encoded, embedded, event and procedural<sup>25</sup>.

Five levels of people knowledge can be distinguished in organizations: individual, teams, geographical units, affinity networks, and enterprise (Boudreau et al., 1999). Above the individual level, the knowledge consists in the collective, meaning structures that exist among the group. These structures include norms, strategies and assumptions that guide how work is organized and

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<sup>25</sup> Mertins, K., P.Heisig, J.Vorbeck. – “Knowledge Management – Concepts and Best Practices”, in Springer Berlin-Heidelberg, 2003, p. 82.



conducted. The five levels intermingle, and knowledge typically flows back and forth as it is shared, reused, confronted, challenged, rejected and ignored. In addition, everyone has a personal knowledge network that extends outside the organization boundaries. The organizational knowledge network is vast and complex a real "web" by itself.

### 3. Views about Knowledge Management

There are various definitions of KM in the literature. Some authors [Davenport et al. (1998), Bukowitz et al. (1999), Scarbrough et al. (1999), Mathi (2004)] identify it with a process or set of processes, others [Bergeron (2003), Lehaney et al. (2003), Ackerman et al. (2003)] – with a management strategy, while third [Herbert (2000), Coakes (2004)] associate it with IT and a set of processes related to knowledge, information and data. Generally, all authors consider knowledge management as a way to administer the knowledge assets of an organization, to make them widely accessible and enlarge them continuously [Choo (1998), Bellaver et al. (2001), Sussman et al. (2002), Ackerman et al. (2003); Mathi (2004), Land et al. (2004)]. However, many theorists would argue that knowledge cannot be managed as it is held in the head or minds of people and thus one can manage the human being but not the knowledge that they contain

Additionally, some studies have called for a more holistic, systemic approach to KM. One such example is the division by Lehaney et al. (2004) into the "know-why, know-what, know-who, know-how" questions of KM. Know-how might be seen as technologically focused, know-who as socially constructed and depending on processes of debate, whilst know-why and know-what relate to issues of power and coercion in societal structures.

Various definitions of Knowledge Management are quoted in (Liebowitz, 2003):

- ✓ KM is the systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprise's knowledge-related effectiveness and returns from its knowledge assets – Wiig;

- ✓ KM is the process of capturing a company's collective expertise wherever it resides – in databases, on paper, or in people's heads – and distributing it to wherever it can help produce the biggest payoff – Hibbard;

- ✓ KM is getting the right knowledge to the right people at the right time so they can make the best decision – Petrush;

- ✓ KM involves the identification and analysis of available and required knowledge, and the subsequent planning and control of actions to develop knowledge assets so as to fulfill organization objectives – Macintosh;

- ✓ KM applies systematic approaches to find, understand, and use knowledge to create value – O'Dell;

- ✓ KM is the explicit control and management of knowledge within an organization aimed at achieving the company's objectives;

- ✓ KM is the formalization of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value – Beckman.

Bukowitz et al. (1999) gives quite a broad definition for KM, whereas it is considered as "the process by which the organization generates wealth from its intellectual or knowledge-based assets." Wealth results when an organization uses knowledge to create more efficient and effective processes or to create customer value. Subsequently, a top-line impact occurs when intellectual assets are used to boost innovation and promote the development of unique market offerings which command a price premium.

Wiig (1998) considers KM from three perspectives with different horizons and purposes:

- ✓ business perspective – focusing on why, where, and to what extent the organization must invest in or exploit knowledge. Strategies, products and services, alliances, acquisitions, or divestments should be considered from knowledge-related points of view;

✓ management perspective – focusing on determining, organizing, directing, facilitating, and monitoring knowledge-related practices and activities required to achieve the desired business strategies and objectives;

✓ hands-on operational perspective – focusing on applying the expertise to conduct explicit knowledge-related work and tasks<sup>26</sup>.

In (Davenport et al., 1998) knowledge management is the set of processes associated with understanding and using this asset. It is a structured approach that establishes procedures for identifying, assessing and organizing, storing, and utilizing knowledge to meet the needs of an organization. Davenport (1996) has further developed ten general principles of KM:

1. Knowledge management is expensive (but so is stupidity!).
2. Effective management of knowledge requires hybrid solutions involving both people and technology.
3. Knowledge management is highly political.
4. Knowledge management requires knowledge managers.
5. Knowledge management benefits more from maps than models, more from markets than hierarchies.
6. Sharing and using knowledge are often unnatural acts.
7. Knowledge management means improving knowledge work processes.
8. Access to knowledge is only the beginning.
9. Knowledge management never ends.
10. Knowledge management requires a knowledge contract (i.e., intellectual property issues).

According to (Lehaney et al., 2004) knowledge management refers to the systematic organization, planning, scheduling, monitoring and deployment of people, processes, technology and environment ... to facilitate .... the creation, retention, sharing, identification, acquisition, utilization, and measurement of information and new ideas, in order to achieve strategic aims.

Similarly, Bergeron (2003) defines that “Knowledge Management (KM) is a deliberate, systematic business optimization strategy that selects, distills, stores, organizes, packages, and communicates information essential to the business of a company in a manner that improves employee performance and corporate competitiveness.”

Herbert (2000) argues that KM is driven by IT and is concerned with collecting, rationalizing, codifying, storing and disseminating all knowledge within an organization. A key theme of KM is to transform tacit into explicit knowledge, which requires a change in organizational culture. Thus, organizational learning is the process by which individuals, and the organization as a whole, develop and use their stock of knowledge while a learning organization is one that both teaches and learns from itself.

When talking about KM, Coakes (2004) raises the question whether a system could be created that will capture companywide knowledge and make it widely available to all its members. This is a goal of numerous large and small organizations which are attempting to face the KM challenges putting in place knowledge management systems. A wide range of technologies are being used to implement KM systems: e-mail; databases and data warehouses; group support systems; browsers and search engines; intranets and internets; expert and knowledge-based systems; and intelligent agents.

#### **4. Why we need a knowledge management ?**

Knowledge management used to solve specific problems arising in an organization, even when we are dealing with a product or service is an in. Organizations implementing a knowledge management acting decisively on line using the parameters maximum intangible assets at the expense allocation of new funds for investment in intangible assets. With changes in the market, the

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<sup>26</sup> Wiig, K. – “Knowledge Management Foundation”, in Schema Press, 1998, p. 32.

uncertainty becomes greater, develops technologies, competitors are proliferating, and the products and services is rapidly devalues.

We often face a situation where we do not fully cover what we know, is left uncovered differences that sometimes can be a disaster, and sometimes may be lower. In these circumstances, an organization must be successful to increase the ability to create new knowledge on which to spread quickly and to incorporate them into new products and services.

In my opinion, we need a knowledge management, because:

✓ Modern organizations focus on knowledge, not capital (knowledge intensive, not capital intensive);

✓ Markets increasingly unstable require “organized abandonment”;

✓ Knowledge management contain helps you change and not change to dominate you;

✓ Only the well informed survive;

✓ Knowledge helps in decision-making;

✓ Become effective if knowledge is shared with others;

Since “european money” requires value-added, knowledge management helps to increase innovation by valuing human potential in an organization.

## Conclusions

Efforts made under the current trends and analysis of literature reveals that became required a radical change in terms of method An organization is not just a warehouse of stored knowledge, but a viable and dynamic environment, within which there are key relationships and interactions that vary with different intensities to ensure transformation of knowledge for the sole purpose of adding value.

We mentioned implanted in a socio-economic context who require complex, asking us to tackle new problems, new behavioral styles. To face the demands, will use its creative potential, in every situation inventing alternative solutions originals.

In these conditions, organizations are put in front redefining own culture through processes of organizational redesign and change of strategy.

“ In the symphony orchestra, several hundreds of talented musicians, playing together. This will be the organization to new organization model, based on knowledge.

We see such a radical change from the tradition of performance that was spread primarily by advancing to positions of command in the managerial ranks.

Organizations will have very few such command’s positions. We will see increasingly more organizations like jazz quintet, in which management changes within the team after the specific mission to fulfill and is independent of the <<degree>> of each member”.

The future belongs to those who will ask hard questions and will dare to dream of a better world. We must dare to do more to reach knowledge. We should seek to find true wisdom and organizational ways to make really the wisest choice.

That’s way, the purpose of my approach was to combine theory with practice, thus creating a framework for understanding the concept of knowledge management oriented diversity of activities in which the instrument of change can be applied.

## References

- I.Ackerman M., Pipek V., and Wulf V., (2003) *Sharing Expertise: Beyond Knowledge Management*, Cambridge Ma: MIT Press, London;
- Bellaver R.F., and Lusa J.M., (2001) *Knowledge Management Strategy and Technology Artech House*;
- Bennet, A., D.Bennet, (2004), *Organizational survival in the new world, The intelligent Complex Adaptive System, Butterworth-Heinemann, US*;
- Bergeron B. (2003), *Essentials of Knowledge Management*, John Wiley & Sons, Inc., Hoboken, New Jersey;

- Blumentitt, R., Johnston, R., (1999) *Towards a Strategy For Knowledge Management Technology Analysis & Strategic Management* 3(11) pp.287-300;
- Bourdreau A., Couillard G., (1999) Systems integration and knowledge management, *Information Systems Management*;
- Bukowitz, W., R.Williams, (1999) *The knowledge management*, Prentice Hall;
- Coakes, E., (2003) *Knowledge Management: Current Issues and Challenges*, Idea Group Publishing;
- Coakes, E., (2004) *Knowledge Management: A Primer*, *Communications of the Association for Information Systems*, Volume 14, pp 406-489;
- Choo CW., (1998) *The Knowing Organization: How Organizations Use Information to construct Meaning, Create Knowledge and Make Decisions* Oxford: Oxford University Press;
- Davenport, T., (1996) "Some Principles of Knowledge Management." *Strategy, Management, Competition*. Winter 1996;
- Davenport, T. H., L. Prusak, (1998) *Working Knowledge: How Organizations Manage What They Know* (Boston: Harvard Business School Press), 2;
- Gavigan, J., M. Ottisch, S.Mahroum, (1999) *Knowledge and Learning: Towards a learning Europe*, *Futures report series* 14, EC JRC;
- Herbert, I., (2000) Knowledge is a Noun, Learning is a Verb *Management Accounting* 2(78) pp 68-72;
- Hildreth P. Wright P. and Kimble C. (1999). Knowledge Management : Are We Missing Something? In Brooks L. and Kimble C. *Information Systems - The Next Generation. Proceedings of the 4th UKAIS Conference, York, UK* pp347-356, <http://www.cs.york.ac.uk/mis/>;
- Hildreth P., Kimble C., Wright P., (2000) Communities of Practice in the Distributed *International Environment Journal of Knowledge Management* 1(4) pp 27-38;
- Lei D.T., (1997) Competence-Building, Technology Fusion and Competitive Advantage: The Key Roles of Organizational Learning and Strategic Alliances, *International Journal of Technology Management* 2/3/4 (14) pp 208-237;
- Lohaney B., Clarke S., Coakes E., & Jack G., (2004) *Beyond Knowledge Management*, Idea Group Publishing 81;
- Liebowitz, J. (1999), *Knowledge management Handbook*, CRC Press LLC;
- Mathi, K. (2004), Key success factors for knowledge management, *MSc Thesis*;
- Mertins, K., P.Heisig, J.Vorbeck, (2003) *Knowledge Management – Concepts and Best Practices*, Springer Verlag, Berlin-Heidelberg;
- Nonaka, I., H.Takeuchi, (1995) *The knowledge creating company: How Japanese Companies create the Dynamics of Innovation*, Oxford, Oxford University Press;
- Pfeffer, J., Sutton, R.I., (1999) Knowing "What" To Do Is Not Enough *California Management Review* 1(42) pp 83-107;
- Polanyi, M. (1966) *The Tacit Dimension*. London: Routledge & Kegan Paul;
- Quinn, J.B., Anderson, P. and Finkelstein, S. (1996) "Managing Professional Intellect: Making the Most of the Best." *Harvard Business Review*. March-April 1996;
- Scarbrough, H., Swan, J., Preston, J., (1999) *Knowledge Management: a Literature Review in Series Issues in People Management*, London: Institute of Personnel and Development;
- Sussman L., Adams A.J., and Raho L.E., (2002) Organizational Politics: Tactics, *Channel and Hierarchical Roles Journal of Business Ethics* (40) pp 313-329;
- Tiwana, A. (1999), *The Knowledge Management Toolkit*, Prentice Hall;
- Tsoukas, H., Vladimirou E., (2001), What is Organizational knowledge, *Journal of Management Studies*, Nov. 2001, Blackwell publishers, Oxford;
- Von Krogh, G.M. Venzin (1995): An essay on corporate epistemology, *Strategic Management Journal* (15), pp.53-71;
- Wiig, K. (1998) *Knowledge Management Foundation*. Schema Press.