

CONSORTIA AND KNOWLEDGE MANAGEMENT.  
THE FUNCTIONAL CONTEXT AND AN ORGANIZATIONAL MODEL

**Anthi Katsirikou**

The Library of the Technical University of Crete

***Abstract.***

Knowledge management (KM) is a quite timely technique of organization theory and management. The knowledge -based organization is the organization of the future and libraries have much to learn from industry and business for once more. The rules and the tools of KM may contribute to the information and knowledge sharing and delivery throughout the world, as the globalization has facilitated the communication. Consortia, consisted from libraries of various strength, power, age, collection, staff experience and specialization can operate according to these concepts of KM in order to enhance effectiveness and efficiency as well as to expertise the services of the member- libraries.

Either in organizational level or in the services to users, the libraries- members of the consortia could benefit much more if they face them as a trans-organizational scheme of knowledge –based community.

The paper will describe such a model coming from the industry and from the theory of the firm, adjusted to the library's context and functions. It will also attempt a brief reference to the benefits of the implementation.

***Introduction.***

One of the most complex issues facing libraries today is change management. The decisions libraries make are becoming more complex, the risks are greater, and the resources, both human and fiscal, are becoming scarcer. There are many key issues facing libraries today that relate to the ability of the library to allocate and make maximum use of these scarce resources.<sup>1</sup>

The productivity and the innovation are the factors, which generate the value. Both of them are applications of the knowledge in work. The fundamental social parts of the knowledge society nowadays are the "knowledge workers". The economic challenge of the post-capitalist society therefore will be the productivity of knowledge work and knowledge workers. Knowledge means a supreme good for use; knowledge is the means that leads to success of social and economic results.<sup>2</sup>

The keys to success in this evolving new economy are situational awareness and flexibility, which can be achieved by implementing electronic systems that generate immediate (real-time) knowledge about internal functions and processes. Such systems make organizations dynamic, and flexible, thereby allowing rapid changes in their strategies and activities. Organizations can use this knowledge to create new internal and external structures and relationships, leading to further improvements in knowledge, which leads to continuous strategy improvements.<sup>3</sup>

As knowledge and information leads to power, the performance of a contemporary organization actually equals to the usage of the communication channels.

The implications of knowledge sharing for the new knowledge-based economy are substantial. Knowledge based competition is generally assumed to require that organizations have different knowledge which they then use to creates sustained

---

<sup>1</sup> Hirshon (1999).

<sup>2</sup> Drucker (1996), p. 18.

<sup>3</sup> Warkentin et al (2001), p. 154.

competitive advantage. But knowledge sharing allows organizations to access the same basic knowledge, which enables competition. This in turn changes the way that organizations must operate, and the mechanisms for governing transactions in the new economy.<sup>4</sup>

### ***Consortia Goals and Mission.***

Library consortia will become even more important in the future by assisting libraries in implementing and managing the process of change. If libraries are unable to cope with and manage the process of change then all of the other tasks that are before it will become insurmountable. A Library consortium, with a broad understanding of how each of its members is coping with various issues, has an ideal opportunity:<sup>5</sup>

1. To explore these issues objectively,
2. To understand and articulate trends as they are emerging, and
3. To create standardised methodologies that the individual libraries can employ and customise at their own institutions.

If between the goals of the Consortium are:<sup>6</sup>

1. To conduct co-operative programs in teaching, professional development, research, publishing, educational evaluation, college finance and administration, and the enrichment of student life,
2. To serve as a clearinghouse for the exchange of information,
3. To promote projects of educational research and experimentation,
4. To make studies of educational and administrative problems.

If the Vision involves:<sup>7</sup>

1. Promoting the organisation of collaborative activities, enlisting institutional personnel from all operational elements of member institutions to encourage professional development, co-operative planning, communication, and institutional advancement,
2. Expanding higher education opportunities for the learning community by reducing inter-institutional barriers,
3. Stretching the scarce resources of the region through the effective use of educational and research technology, of each institution's resident expertise, and of improved strategic and operational planning and management initiatives,
4. Facilitating the development of joint efforts to meet the needs of the local and regional learning communities into the 21<sup>st</sup> century,

---

<sup>4</sup> Carayannis (2000). See also Beijerse (1999) "The OECD economies are more strongly dependent on the production, distribution and use of knowledge than ever before. Politicians and policy makers increasingly have to be aware of the fact that contemporary society is an information society, and that the contemporary economy is a knowledge-based economy or has to be a knowledge-based economy... Because knowledge is uncertain as input and as output, governments are forced to focus their policy on rebuilding their economies into an entrepreneurial economy." He also refers the four stages in the development of the knowledge-based economy: "1. The stage of the increasing importance of information in which information and communication technology are being broadly applied in order that the processes can be organized more efficiently and the transport and exchange of information can go faster. 2. The knowledge-based economy is marked by a shortening of the life cycle of products and technologies. As entrepreneurs use the technological possibilities to offer their customers a broader spectrum of products, these customers use this variety to put emphasis on their individuality and to strengthen their identity. Competition by imitation therefore becomes almost impossible. 3. It is observed also the immaterialization of the economy. The changes accompany the development of the soft side of products, which demand an entirely new kind of knowledge about changes in markets, tastes, values and life style. 4. These elements lead to a competitive advantage for companies in the knowledge-based economy. It is rising the network economy that is human networks that are necessary to deal with an economy in which specialization and the combination of different forms of knowledge is crucial."

<sup>5</sup> Hirshon (1999).

<sup>6</sup> <http://www.soche.org>

<sup>7</sup> Hirshon (1999).

Then, library consortia need the Knowledge management in order to integrate their mission and goals, in order to achieve the effectiveness and efficiency that libraries aim to.

The benefit from Knowledge Management is mentioned by Abell και Oxbrow (2001)<sup>8</sup> as follows:

The sharing of such knowledge helps others to learn and enriches the individual who shares. The act of trying to visualize and explain the knowledge they have moves that knowledge on. Others contribute knowledge grows. Working on problems together, recognizing expertise wherever it resides in the organization and the sharing of expertise and problem solving is key to building knowledge.

Mechanisms to improve this exchange of knowledge, which requires a mutual trust on the part of the participants and some aspect of reward and recognition, focus on the building of teams, communities and networks.

### ***Knowledge Management***

Knowledge management has especially to do with tacit organizational knowledge and various non-typical information resources, fruitful as to users as to the organization hierarchy and structure. The knowledge management processes aim to the best practices procedures and to benchmarking, if they are used by a variety of organizations in common.

Librarians have developed and applied many knowledge management principles in the provision of academic library services. However librarians have done little to use organizational information to create knowledge that can be used to improve functionality of library and higher education processes. In many ways, knowledge management incorporates principles that academic librarians have developed and used with scholarly information for many years. It then applies these principles and others to organizational information in ways that create new knowledge to improve organizational effectiveness.<sup>9</sup>

Knowledge management is one way to develop and apply the organizational knowledge needed to improve library operations and ultimately, library effectiveness. It also enables libraries to generate organizational knowledge for higher education institutions.<sup>10</sup>

The following description of cooperation in the knowledge management context, remind us the consortia, the cooperation between libraries, the interdependence:<sup>11</sup>

Partnership is a key Knowledge Management concept in the outward-facing knowledge environment. The customer-orientated approach builds relationships with clients and suppliers and alliances with other organizations, and seeks to become part of a number of markets, geographical and social communities. It is an environment where customers and suppliers work together to develop what is required for the marketplace by the preferred route, rather than playing one supplier off against another. It is also an environment where the stakeholders not only include the suppliers of finance, the staff, suppliers and customers, but also the local, national and international community. It is based on recognition of mutual dependency and respect. Partners may also include potential competitors.

Knowledge Management organizations tend to be more individually based, reflecting the common trend toward organizational autonomy. To be successful collaborators,

---

<sup>8</sup> P. 57.

<sup>9</sup> Townley (2001), p. 45.

<sup>10</sup> Townley (2001), p 47.

<sup>11</sup> Abell και Oxbrow (2001), p. 55.

librarians will need to take a more independent and self-directed approach to their work within knowledge organizations.<sup>12</sup>

Organizations increasingly have to deal with matters as:<sup>13</sup>

- ✓ An increasing complexity of products and processes,
- ✓ A growing reservoir of relevant knowledge, both technical and non-technical,
- ✓ Increasing competition in an economy with shorter product life cycles, in which case learning processes have to be quicker,
- ✓ An increased focus on the core competencies of the firm, which have to be coordinated, but letting go less relevant tasks.

What occurs to the Trans-organizational knowledge management is the systematic sharing and exchange of knowledge with external entities. Expanding the scope of knowledge management beyond the single firm focuses attention on intelligent Trans-organizational knowledge interfaces, the points at which the knowledge management structures of different organizations overlap. Those interfaces act as filters for the sharing and exchange of knowledge across organizational boundaries.<sup>14</sup>

Knowledge and knowledge management play a significant role in securing the cooperation. Trans-organizational sharing and exchange of knowledge serve as the foundation for the development of trust, which in turn leads to successful cooperative relationships. The concept of social capital is useful to understanding how to build and maintain the relationships, which are necessary to achieve higher-order innovation in co-operative, knowledge driven business environments.<sup>15</sup>

As libraries are gradually independent from the organization, they belong to, because of the interdependence between libraries on user services, resource sharing and material organization, as they are dependent on relative or similar organizations, through co-operations, co-ordinations and corporations. This goal is achieved by the human resources of the organizations and is facilitated by the change of the culture, which enables managers and employees of every hierarchical level to make decision in common.

The Knowledge management context involves the entire system of knowledge transfer, from the generation, the construction, the diffusion and the use. This leads librarians beyond their contemporary role of knowledge storing, organizing, retrieval and access to the global transformation and creation of information. This is a challenge for librarians and an opportunity to move their activities and to enlarge their sharing to scholarly communication procedure.<sup>16</sup>

Anyone working in the field of knowledge and information management will require a range of skills, some of which could be grouped to the following categories and are related to knowledge and information management:<sup>17</sup>

- ✓ Knowledge of sources: Print/ Electronic, Internal/ External, who to ask, how to look, evaluation.
- ✓ Subject knowledge and understanding.

---

<sup>12</sup> Townley (2001), p. 54.

<sup>13</sup> Beijerse, (1999)

<sup>14</sup> Carayannis (2000).

<sup>15</sup> Carayannis (2000).

<sup>16</sup> Lucier, R. (1993). See also Drabenstott (1994), p. 166 "Since digital libraries will perform descriptive cataloging tasks automatically, library staff will turn their attention to the creation of intellectual connections between newly published digital artifacts and the general artifact collection. This means much more than assigning one or two subject headings per artifact. Librarians will establish connections that enable end users to make informed decisions about acquiring artifacts. Connections need not be limited to formal scholarly communication channels such as list serves and discussion groups for pertinent discussion that covers the topics of formal communication or refers to specific artifacts directly. "

<sup>17</sup> Webb (1998), Pp. 30- 31.

- ✓ Information and records management: indexing methods, database development, thesaurus construction, retrieval /delivery methods, electronic storage, retention policy, structuring records, legislation, standards and controls.
- ✓ Internal and external networks.
- ✓ Users/ patterns of usage: needs analysis, satisfaction measures.
- ✓ Current awareness services: monitoring/ updating, abstracting, news services.
- ✓ User advice and training.
- ✓ Contribution to knowledge and information strategy.

The acquisition of new knowledge<sup>18</sup> and competencies is becoming more important as global competition accelerates. Inter-company cooperation may be the way forward. The long experience of cooperating in research and development across organizations and institutions has presented opportunities for learning and the transfer of knowledge. However the need to create an appropriate climate in which such developments can take place is obvious.<sup>19</sup>

Some problems could be presented in relative to the cooperation between organizations on the shared use of knowledge management and on the management of this form.

An organization with critical strategic knowledge may not be able to make its knowledge explicit, or even to recognize that it possesses such knowledge. This would make trading or sharing such resources impossible. But if organizations develop a common knowledge management system composed of organizational routines to identify and transform tacit knowledge into explicit one, then that knowledge can be transferred among those organizations more readily. Successful trans-organizational knowledge management has several requirements:

1. Participants must be willing to learn in a trans-organizational environment.
2. Participants must be capable of learning from other participants, sharing similar knowledge bases, knowledge assimilation processes and experience in knowledge commercialization in order for the recipient of the knowledge to be able to leverage the knowledge learned from a given source.
3. Participants create a shared social context through their interaction.
4. The learning relationships among members of an alliance evolve over time as knowledge is shared and exchanged.<sup>20</sup>

Reneker and Buntzen (2000),<sup>21</sup> declare that the crucial key points of the knowledge management are:

- ✓ The support of distributed work teams in order to build relations, to enforce the communities of interest and to share information.
- ✓ The growth of the competence of finding specialists and equivalents.
- ✓ Providing tools for information diffusion to them who are interested in, without prior profile of them.
- ✓ Enabling user to customize his information work area.

---

<sup>18</sup> According to F. Machlup (1980): *Knowledge: its Creation, Distribution and Economic Significance*, Princeton University Press, at Jantz (2001), there are 5 categories of knowledge: «1. Practical knowledge, which is useful in an individual's work, decisions and actions, 2. Intellectual knowledge, which satisfies intellectual curiosity, 3. Small talk and pastime knowledge, which satisfies non-intellectual curiosity or the desire for light entertainment, 4. Spiritual knowledge, which relates to religion and mystical experiences, and 5. Unwanted knowledge, which is outside one's interests and is usually accidentally acquired.»

<sup>19</sup> Quelin, B. V. (1998): Learning more by learning together. *Financial Times*, 13 Feb, *Mastering Global Business Supplement*, p. 6, at Webb (1998), p. 7, where you can see Roos' (1998) opinion: knowledge is the prime source of competitive advantage. He notes particularly the importance of knowledge sharing through organized networks, but also warns of the need for sensitivity in dealing with those involved in the process, suggesting that problems could arise if people treated merely as assets that can churn out knowledge on demand.

<sup>20</sup> Carayannis (2000).

<sup>21</sup> P. 396.

- ✓ Improvement of research accuracy, of timeliness, of times consuming.
- ✓ Building and expansion of the common information and knowledge base.

The goal of Knowledge management is the creation of added value for the organization at three distinct levels:<sup>22</sup>

1. Improvement of existing business processes, cost reduction (what can we do better),
2. Development of new products and services (what can we do more),
3. Improving the strategic position, aimed at:
  - ✓ Developing unique knowledge,
  - ✓ Applying knowledge to innovative products and services,
  - ✓ Strengthening the competitive position,
  - ✓ Safeguarding the organization's continuity,
  - ✓ Improving flexibility,
  - ✓ Creating an attractive work environment,
  - ✓ Making the organization independent of the individual employee's knowledge.

On the other hand, the knowledge management can be described as art:<sup>23</sup>

Knowledge management takes aim at evolving people's attitudes and work behaviors to affect new heights of collaboration- the intentional sharing of ideas, information, knowledge and work itself- in support of a business need. It's about changing people's value paradigm from "my information is power" to "sharing is power". It's about large-scale cultural change, new incentive systems and performance metrics, and learning and education. It focuses on (re)shaping the attitudes and behaviors of people so they can ensure the ready availability and resolute application of both personal and institutional knowledge.

Hubert Saint Onge (1999) argues that Knowledge Management is about the development of corporate capability, which is essential if an organization is to develop and lead its market rather than endlessly work to keep up with the demand. Corporate capability is the integration of:

- ✓ Strategy: the goals of the organization and the ways it seeks to serve them,
- ✓ Structure: the grouping of accountabilities; structures that define the position of the relationship between members of the organization,
- ✓ Systems: the ways in which processes (information, communication, decision making) and flows (products/services and capital) proceed,
- ✓ Culture: the combined sum of the individual opinions, shared mindsets, values and norms.

Whether or not all organizations would recognize this as their approach to success, it reflects a current focus on the need to develop a business approach that gives an organization the capability to respond to rapidly changing markets and conditions through innovative approaches, channels and products. The knowledge economy requires that organizations have the ability to identify the change signals and the flexibility and agility to respond rapidly. Their management must inspire and enable innovation, ensure that they learn from success and failure, and provide the infrastructure to support a radically new way of working.

A corporate Intranet is not in itself Knowledge Management. True knowledge management must involve capturing the internal knowledge generated by a firm -its best thinking on products, customers, competitors, and processes- and sharing it.<sup>24</sup>

---

<sup>22</sup> Mackenzie Owen (1999), p. 8.

<sup>23</sup> Havens and Knapp (1999) p. 6.

<sup>24</sup> DiMattia and Oder (1997), p. 33.

Many companies have moved to the concept of knowledge workers. That can be a librarian or someone who just happens to work with information. The opportunity for us in the library is that we believe we have the skills to manage this kind of diverse body of information. The challenge for us is to make sure we're at the table when decisions about this get made.<sup>25</sup>

Three modes of knowledge development facilitate the value-creating knowledge processes:

- ✓ Generative- knowledge developed and created through joint activities involved with solving problems,
- ✓ Productive- knowledge developed and accumulated through the creation of products and services. This knowledge is re-productive in the sense that it may be applied repeatedly but within a different guise,
- ✓ Representative- knowledge made available to suppliers for example, concerning their own value creating processes.<sup>26</sup>

Knowledge mobilization depends upon an organizational culture that promotes overlapping behaviors such as information sharing and joint experimentation.<sup>27</sup>

### ***Inter-Organizational Co-operation***

Inter-organizational systems are networks of company systems that allow organizations to share information and interact electronically across organizational boundaries. These systems enable firms to incorporate buyers, sellers, and partners in the redesign of their key business processes, thereby enhancing productivity, quality, speed and flexibility. Increased information flows alter markets, changing the relationships between buyers and sellers and create new channels of distribution.

There are three patterns of interaction: One-to-one in which two parties interact, one-to-many in which a organization may connect to a number of partners and Many-to-many form which is used to simultaneously connect to multiple entities on both sides, thereby creating an electronic marketplace for sharing information or for buying and selling digital goods and services.<sup>28</sup> The central entity may be a single organization or an industry consortium or even a library consortium.

The universal adoption of the Internet has created the opportunity for firms and other organizations to establish collaborative networks of partners, with whom they may exchange strategic knowledge in order to achieve mutually beneficial objectives. This electronic commerce knowledge can be termed e-knowledge. E-knowledge networks combine the positive benefits of knowledge management systems with those of inter-organizational systems.<sup>29</sup>

Inter-organizational network is an environment for the interaction and activities such as joint projects, collaborations or alliances for a specific R&D item and may benefit the participants in various degrees. The continuous innovation is achieved by the linkage of the outside with the inside knowledge. Once the organization settles down with profit contribution to the group, the external network to improve its capacity. Thus, the external network serves five purposes:

1. It is a cradle of fresh innovative ideas and concepts,
2. It is a continuous supply of innovation resources,
3. It is a testing site of new product development or services,
4. It is a training ground of potential talents,

---

<sup>25</sup> DiMattia and Oder (1997), p. 33.

<sup>26</sup> Swan et al (2000), p. 103.

<sup>27</sup> Swan et al (2000), p. 104.

<sup>28</sup> Warkentin et al (2001), p. 152.

<sup>29</sup> Warkentin et al 2001, p. 153.

5. It is a way to share the cost of staff training,<sup>30</sup> and
6. Above all it is the ground for benchmarking.

Although the organization gets the innovation resources from both organizational forms at different business time frames, the flow of the resources and the accumulated knowledge base are inter-dependent and correlated with other subsidiaries and network members from outside. This is the cycle of innovation, adoption and diffusion.<sup>31</sup>

A network is typically defined in terms of:<sup>32</sup>

*Actors who occur at several levels within the organization and are characterized by:*

- ✓ Performing and controlling activities,
- ✓ Developing relationships with other actors,
- ✓ Base their degree of control of resources depending upon direct or indirect ownership and relation within the network hierarchy,
- ✓ Are goal oriented. The general goal of actors is to facilitate control within their network boundary. There are different levels of knowledge within the population.

*Activities- where there are two key types of activity cycles (tightly or loosely coupled) and characterized by:*

- ✓ Transformational activities where resources get "changed",
- ✓ Transfer activities more control of resources from one actor to another. These types of activities link actors together.

*Resources are utilized within activity processes and are cyclical in nature:*

- ✓ Transformation and transfer of activities require resource utilization.
- ✓ Resources are combined and the act of combination requires resources.

Actors create and maintain relationships with each other and require knowledge of other actors within the network in order to do so. Actors are the key constituents in strengthening the coupling between differentiated zones of meaning and enable negotiation, co-ordination and compatibility in order to facilitate collective and purposeful action to take place. Activities are the processes in which actors co-ordinate the utilization of resources. A cyclical relationship links the three factors of the network.<sup>33</sup>

### ***Virtual Organisation***

E- Knowledge and Inter-Organizational networks need virtual organization to be implemented. The virtual community documents everyday life in cyberspace by recounting the human side of the electronic cottage. The workplace is also part of our social fabric, and being able to exchange information and knowledge rapidly has dramatically changed the power structure in companies, universities, etc. Workers of any status have been able to disseminate information electronically without having to go through hierarchical channels.<sup>34</sup>

The Characteristics of the virtual organization are:<sup>35</sup>

1. Customer-based and mass customization: this characteristic refers to the ability to customize the product or service to the customer. Assuming in this case that a library's customers are not only its users but also the relative libraries, virtual organization and networks facilitate the resource sharing and knowledge exchange.

---

<sup>30</sup> Szeto (2000), p. 154.

<sup>31</sup> Szeto (2000), p. 154.

<sup>32</sup> Swan et al (2000), p. 102.

<sup>33</sup> Swan et al (2000), p. 102-103.

<sup>34</sup> Larsen and McInerney, (2002), p. 446.

<sup>35</sup> Larsen and McInerney (2002), p. 448-9.

2. Network of independent organizations. Virtual organizations are often considered a subset of the much older research area of networked organizations. A network refers to a set of people or organizations that are tied by relational, positional or spatial proximity. Library consortia fulfill the above presuppositions and take advantage of it.
3. Semi-stable relations: the literature disagrees about the temporal nature of virtual organizations, however most researchers seem to agree that the virtual organization is a temporary structure. Concerning library consortia, the term depends on the projects and on the produced results, which are common good.
4. Geographical dispersion: the geographical dispersion of organizations may be one of the main differences between a virtual organization and other types of partnerships. Whereas other types of partnerships rely on co-locating staff, Virtual organizations avoid this by using information technology. Consortia already use widely information technology for resource sharing, cataloguing, learning and communicating.
5. Based on core competencies: most organizations naturally have areas where they have higher quality competencies as well as areas where they have lower quality competencies. The thinking behind virtual organizations is that several organizations should pool their talents, with each organization contributing their high quality competencies. Nowadays, a crucial topic for organizations, libraries included, is this of benchmarking. If consortia are interested in aiming libraries-members to their organizational development, benchmarking processes are what they could organize for them.
6. Dependent on innovation: Virtual organizations take advantage of the cooperation by creating unique and innovative solutions. Library consortia are the proper structure for creating unique and innovative solutions.
7. Based on teamwork: teams are building a dynamic inside the organization. This is especially basing on technology. It is also true that teams are building on the projects and on the common goals and mission. Library management literature offers a plethora of paradigms on team working, which principles can be applied on library consortia too.
8. Partial mission overlap: partial mission overlap suggests that the Virtual Organization partners are also doing business outside the context of Virtual Organization. Partners that are doing business only within the context of the Virtual Organization would have full mission overlap. Partial mission overlap is the organization form of library consortia.

### ***Innovation***

What we actually mean with the term management is the knowledge provision for finding the best way to use it for producing results. However, nowadays we use knowledge systematically and deliberately in order to define which is the new required knowledge, if it is obtainable and how it could be effective. In other words, knowledge is applied for the systematic production of the innovation.<sup>36</sup>

Knowledge management is joined with innovative process, which is defined as the mean for new ideas in the market.

Knowledge management philosophy is managing the balance of people, processes and technology that determines the organization and its relationship with its environment. Beneath this there are layers of values and attitudes that determine whether the

---

<sup>36</sup> Drucker (1996), p. 61.

organization is a knowledge environment. It is about creating an environment where knowledge is valued and where the difference between information and knowledge, and their interdependence, is understood, an environment that values creativity and innovation, encourages a variety of working patterns and facilitates communication between people in different locations and from different departments.

A knowledge management philosophy creates an organization that encourages ideas, rewards success, allows people to fail and learn from failure, enables people to admit problems, reflect on and share failure, success, problems and solutions, and encourages people to ask for help. It creates an organization that is aware of its environment, developing a corporate instinct that allows it to react quickly and make informed decisions.<sup>37</sup>

### ***Administration and Management***

The productivity of the knowledge is a responsibility of the administration. This result is unable to be produced by government activities or free market rules. It requires systematic, organized applications of the knowledge to knowledge. In order knowledge produce results:<sup>38</sup>

1. Knowledge must be applied in order to provoke a different situation. The objective is the slight gradual improvements to lead to radically different products, procedures or services some years later.
2. Knowledge must be focused on a theme. The effort of knowledge management production requires clear goals and organization, because it is the result of hard work.
3. It is required methodical development of the chances to change. These opportunities must be combined to the qualifications and specialties of the knowledge worker and knowledge team.
4. It is required a good time management. The high knowledge productivity comes after a long period of pregnancy. The knowledge productivity requires a continuous flow of short-term results. Consequently, it is required the most difficult of the achievements of managerial administration: the balance between long-term and short-term.

The factors that influence the Knowledge Management inside the organization are distinguished in three main disciplines, which are managerial, resources and environmental.<sup>39</sup>

Managerial influences emanate from organizational participants responsible for administering the management of knowledge:

1. Coordination. Knowledge development is a primary driver of KM. Coordination refers to managing dependencies among activities, but also to marshaling sufficient skills for executing various activities, arrangement of those activities in time and integrating knowledge processing with an organization's operations.
2. Control<sup>40</sup> is concerned with ensuring that needed knowledge resources and processors are available in sufficient quality and quantity, subject to required

---

<sup>37</sup> Abell και Oxbrow (2001), pp. 37 –38.

<sup>38</sup> Drucker (1996), pp. 245-246.

<sup>39</sup> Holsapple and Joshi (2000).

<sup>40</sup> See also Abell and Oxbrow (2001), p. 59, who υποστηρίζουν «If the organization is fundamentally about creating and exploiting knowledge then it needs to understand the key knowledge flows. Who knows what? What do they need to know? How do they find out? What knowledge does the company have? What knowledge is created and what happens to it? What supports and what hinder knowledge flow? These are the questions that knowledge mapping seeks to answer.» and they continue at p. 60 «A knowledge map is a representation of the knowledge assets of the company, tacit (experts, groups, organizations) and explicit (records in documents and databases, on

security. Two critical issues here are protection of and quality of knowledge resources. Protecting knowledge resources from loss, obsolescence, unauthorized exposure, unauthorized modification and erroneous assimilation is crucial for the effective management of knowledge. In establishing sufficient controls to govern the quality of knowledge used in an organization, management needs to consider two dimensions: knowledge validity and knowledge utility. Validity is concerned with accuracy, consistency and certainty; utility is concerned with clarity, meaning, relevance and importance.

3. Measurement involves the valuation of knowledge resources and processors. It is also the basis for evaluation of leadership, coordination and control; for identifying and recognizing value-adding activities and resources; for assessing and comparing the execution of knowledge activities; and for evaluating the impacts of an organization's Knowledge Management on bottom-line performance.
4. Leadership. In alignment with the organization's purpose and strategy, it establishes enabling conditions for fruitful Knowledge Management. Coordination, control and measurement are contributors to establishing these conditions, but there is an additional aspect to fulfilling the leadership mission. This distinguishing characteristic of leadership is that of being a catalyst through such traits as inspiring, mentoring, setting examples, engendering trust and respect, instilling a cohesive and creative culture, listening, learning, teaching and knowledge sharing. The core competencies for effective leaders of knowledge -intensive organizations are being a catalyst, being a coordinator, exercising control and being an evaluator. The Knowledge Management leader creates conditions that allow participants to readily exercise and cultivate their knowledge manipulation skills, to contribute their own individual knowledge resources to the organization's pool of knowledge, and to have easy access to relevant knowledge resources. For ongoing success of Knowledge Management initiatives, it is necessary to develop leaders at all levels of functionality or accountability. The execution and cultivation of leadership depends on an appreciation of knowledge resources, of knowledge activities and of the other Knowledge Management influences.<sup>41</sup>

Resources influences are the financial resources, human resources and the computer - based participants. As the raw materials for knowledge activities, knowledge resources available in an organization necessarily influence its Knowledge Management and the resultant learning, projection and innovation. Some knowledge

---

tape or video, etc). It will cover internal and external assets and show how these flow into and out of the business process.»

<sup>41</sup> As Abell and Oxbrow (2001), pp. 54-55, point out «The knowledge environment needs for strong leadership, but leadership has changed dramatically in the last decade. The knowledge age has created a need for more leadership but of a style very different to that of the authoritarian leaders of the past. Management of organizations in the knowledge age is about managing tacit knowledge to increase the speed of innovation, but 'tacit knowledge walks on two feet' and management of talented people is different from the old style of management. It is a style that motivates and inspires, nurtures a healthy corporate culture and attracts followers. The keywords associated with leadership that emerged from this study included 'vision', 'passion' and 'persistence'. Among the high level of required leadership skills identified are included the ability to inspire trust and to motivate, and a willingness to listen. Tacit knowledge is about insights and instincts. An organization can live within walls or via communication networks. Structures are changing; there is a move away from control and command hierarchies to the facilitation of creative groups of people. The leadership of such organizations is dynamic, creating and communicating a vision and making available resources to enable individuals and groups to achieve that vision. Leadership cannot be confined to one inspirational individual. Leadership is distributed throughout the organization and is as important to successful outcomes in teams, communities, and departments and on projects as in the boardroom. A successful corporate leader can inspire, but needs other leaders to deliver the vision. Leadership becomes a skill that is nurtured in many people, and an area where a diverse range of people are encouraged to explore and develop their potential.»

resources also affect Knowledge Management by serving as the basis for coordination, control, measurement and leadership. Major types of organizational knowledge resources include participants' knowledge, artifacts, culture, and strategy. The environmental influences are external to an organization. The environment influences what knowledge manipulation skills are available. At this category belong influences as the competition, fashion, markets, technology, time and governmental, economic, political, social and educational.<sup>42</sup>

The proposed model of the knowledge management system of a consortium would be a communication system, derived by the supply chain management networks,<sup>43</sup> which is consisted by four major integrated parts (see figure one at the end of the presentation). The first part is the knowledge resources, such as publishers, database providers, websites, R & D organizations (industries, universities, research institutions, etc.), digital media, and information technology. This first part directs its content to the second part, which is consisted by the libraries' content and e-knowledge database of every library as a unique integrated and distributed system. This new two-part information and knowledge system is diffused to the libraries – members, which play the role of wholesalers and are the third part of the systems, as the fourth one are the users of libraries members.

The crucial point here is the second part, which consists an entirely integrated body regarding to resources. Consortium members face so the suppliers as the users equally common. Otherwise, if the model would be one-library-centered the collaborated libraries would be considered as customers and would be included in the users.

What is described until now is the content flow between organizations. What is required however is the knowledge flow, which in opposition of the content doesn't follow a linear route, but every point to every point of the model diffuses it.

In this way, the potential of knowledge management organization is obvious as well as the expected benefits by it. The administration and management follow the rules of consortia cooperation and the relations between consortium and libraries-members and the success depends on evolving people, which are the main asset for contemporary organizations.

---

<sup>42</sup> See also Sullivan (1999): "the external context of the firm includes the macro-economic, legislative, regulatory, technological and socio -political forces that create the firm's business environment. These forces need to be defined, described and the nature of their impact on the firm known. Once known, these forces can be categorized by their major and minor effects and into effects that are felt in the immediate, mid- or long-term. The key external forces for change, and their leading indicators, must be determined and monitored."

<sup>43</sup> Warkentin et al (2001), p. 156.

## **References**

1. Abell, A. and Oxbrow, N. (2001): *Competing with Knowledge: The Information Professional in the Knowledge Management*. LA, TFPL.
2. Beijerse, R. P. uit (1999): Questions in Knowledge Management: Defining and Conceptualizing a Phenomenon. *Journal of Knowledge Management*, 3(2), pp. 94-110.
3. Carayannis, E. G. et al (2000): Leveraging Knowledge, Learning and Innovation in Forming Strategic Government- University- Industry (GUI) R & D Partnerships in the US, Germany and France. *Technovation*, 20(9), pp. 477-488.
4. DiMattia, Susan and Oder, Norman (1997): Knowledge Management: Hope, Hype, or Harbinger? *Library Journal*, September 15, pp. 33-35.
5. Drabenstott, Karen M. (1994): *Analytical review of the Library of the Future*. Council of Library Resources, Washington, DC, 187 p.
6. Drucker, Peter (1996): *Post- Capitalist Society*. Athens, Gutenberg, 281 p. (Greek ed.)
7. Havens, C. and Knapp, E. (1999): Easing into Knowledge Management. *Strategy Leadership*, 27(2), pp. 4-9.
8. Hirshon, A. (1999): Libraries, Consortia, and change management. *The Journal of Academic Librarianship*, 25 (2), pp.124-126.
9. Holsapple, C. W. and Joshi, K. D. (2000): An Investigation of Factors that Influence the Management of Knowledge in Organizations. *The Journal of Strategic Information Systems*, 9(2-3), pp. 235-61.
10. Jantz, R. (2001): Knowledge Management in Academic Libraries: Special tools and Processes to Support Information Professionals. *Reference Services Review*, 29(1), pp. 33-39.
11. Larsen, Kai R. T. and McInerney, Claire R. (2002): Preparing to work in the virtual organization. *Information and Management*, 39, pp. 445-56.
12. Lucier, R. (1993): Knowledge Management: Refining Roles in Scientific Communication, στο G. R. Boynton and Sheila D. Creth (eds.), *New Technologies and New Directions: Proceedings from the Symposium on Scholarly Communication*, Meckler Publishing, Westport, CT.
13. Mackenzie Owen, J. (1999): Knowledge Management and the Information Professional. *Information Services and Use*, 19, pp. 7-16.
14. Reneker, Maxine H. και Buntzen, Joan L. (2000): Enterprise Knowledge Portals: two Projects in the United States Department of Navy. *The Electronic Library*, 18(6), pp. 392-402.
15. Saint Onge, H. (1999): Cultivating Corporate Culture towards a Knowledge Environment. *European Business Information Conference*, TFPL.
16. Sullivan, P. H. (1999): Profiting from Intellectual Capital. *Journal of Knowledge Management*, 3(2), pp. 132-143.
17. Swan, W. et al (2000): Viewing the corporate community as a knowledge network. *Corporate Communications: an International Journal*, 5(2), pp. 97-106.
18. Szeto, E. (2000): Innovation Capacity: working towards a mechanism for improving innovation within an inter-organizational network. *The TQM*, 12(2), pp. 149-57.
19. Townley, Ch. T. (2001): Knowledge Management and Academic Libraries. *College and Research Libraries*, January, pp. 44-55.
20. Warkentin, Merrill et al (2001): E-Knowledge networks for inter-organizational collaborative e-business. *Logistics Information Management*, 14(1/2), pp. 149-62.

21. Webb, Sylvia P (1998): Knowledge management: linchpin of change. Aslib.

***Autobiographical Notes***

Anthi Katsirikou has been the Director of the Library of the Technical University of Crete since 1985. She received her Degree in Library and Information Science (1982) and the Degree in Political Studies (1989). She was the organizer of the 20<sup>th</sup> IATUL Conference (Technical University of Crete, Chania, Greece: May 17-21, 1999). She has participated in National and International Conferences and has issued articles at scientific journals on various aspects of Library management and a book on the same theme in Greek. Now she is currently working towards her Ph.D. degree in the field of Library Management. Her research interests focus on Innovation Management and Management of Change in libraries. She's a member of IFLA, IATUL and ALA. Corresponding address: Campus, 73100 Chania, Greece. Tel. + 8210 37281, Fax. + 8210 69919, E-Mail: [anthi@library.tuc.gr](mailto:anthi@library.tuc.gr)

Figure 1. The knowledge network.

