

ORGANIZATION'S COMPETITIVE ADVANTAGES RELATED TO SOCIETAL KNOWLEDGE MANAGEMENT

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***Abstract:** In the knowledge-based society, the corporations and the global and international companies are involving more and more in developing environmentally sustainable products and production processes, as a consequence of the new industrial system that generates individual, organizational and societal knowledge. Some general aspects regarding knowledge, knowledge management and knowledge societal management are presented in the paper. The main issues of the societal knowledge management are based on several organizations' competitive advantages that are nowadays fundamental: intellectual capital creation, the life cycle management, the integration of societal requirements into business strategies and the knowledge work force development. The fourth strategic capabilities discussed in the paper bring benefits to individuals, organizations and society into the societal knowledge system.*

***Key words:** knowledge, knowledge management, societal knowledge management, competitive advantage, societal knowledge system.*

Introduction

The management focus has suffered transformation along time. If early on the management observed the work and later it included the role of information, recently a new shift occurred by including knowledge concept. The understanding of organizational performance is not related only on know-how and expertise influencing the quality of processes and products or services, but on existence and use of knowledge. "However, the knowledge focus has tended to be on the individual and not on systematic considerations of broader work processes or knowledge mechanisms within organizations. There has been little focus on invisible work, particularly on how workers think and utilize knowledge when performing tasks" (Wiig, 2000).

The literature offers valuable ideas and theories regarding the integration of cognitive sciences, knowledge understanding and knowledge use in the business functions and demanding markets, and many writers became viable references, such as: Brown and Duguid (2000), Damasio (1994, 1999), Halpern (1989), Nonaka and Takeuchi (1995), Klein (1998), Schön (1983), Wiig (1993), also cited in Wiig (2000). But, gradually and systematically the organizations started to create and leverage the intellectual capital into business and public management. Integrated in this theory is the information technology (IT), which is used extensively to support knowledge management, although "many information management tools are marketed as being 'knowledge management' tools, which they arguably are not, because knowledge is distinctly different from information and that knowledge management and information management is not the same" (Wiig, 2000).

The broad field of knowledge management introduces new options, capabilities, and practices to assist organizations to great advantage. It becomes a new responsibility to manage knowledge to strengthen private organizations and public service effectiveness and improve the society they serve. Nevertheless, the knowledge management goals are to improve the effectiveness and sustained viability of any enterprise – be it a commercial corporation, a part of society, a country, or a single individual. In this respect the knowledge management must be fully aligned to the enterprise's central objectives to create competitive advantages.

Knowledge and knowledge management

Knowledge is understanding gained through experience, observation or study (Barquin, 2006). Knowledge has different forms, such as:

- Explicit knowledge: books, papers, databases, videos etc.
- Implicit knowledge: in people's mind and could be explained
- Tacit knowledge: in people's mind and difficult to be explained.

These forms of knowledge could be encountered in any organization, but the managers may not be fully aware of the importance of balancing them in designing the organization strategies to compete on the market. As Lewit (1991) points out "the most precious knowledge ca neither be taught nor passed on".

Some important basic characteristics of knowledge are underlined by Fuchs (2004):

- Knowledge is a manifestation of information in the human-social realm. Knowledge doesn't exist in nature as such; it is a human and cultural product.
- Knowledge exists both in the human brain and in social structures and artefacts. It has subjective and objective aspects that are mutually connected. Subjective and objective knowledge is constituted in social practices of active, knowledgeable human beings; knowledge is related to human practice.
- Objective knowledge is stored in structures and enables time-space distanciation of social relationships. It reduces the complexity of social systems; foundations of human existence don't have to be re-produced permanently due to this storage-function. Objective knowledge is a supra-individual structural entity, but is based on human agency, it is medium and outcome of social actions, it constrains and enables human practices.
- Individually acquired knowledge can be put to use efficiently by entering a social co-ordination and co-operation process. Synergetic advantages that can't be achieved on an individual basis can be gained by such a co-ordination of knowledge. Emergent knowledge and qualities show up and are due to the synergies produced by the co-operating efforts of knowledgeable actors. Intelligent organizations are based on the effective use and management of emergent knowledge.
- Knowledge is a social, common, public good that has a historical character. Knowledge production is a social process, in order to produce new knowledge one must refer to prior knowledge produced by others. Frequently knowledge production has a highly networked and co-operative character. Knowledge is a self-expanding resource, but can only be artificially transformed into a scarce resource (e.g. by Intellectual Property Rights).

Other relevant characteristics also underlined by the author are: knowledge must be permanently enhanced and updated, it is intrinsically coupled to not knowing, it has relevance for a system and it is constituted within and part of human experiences, it is a non-substantial good that is generally not used up by its manifold usage, it expands during its usage, it can be compressed, it can replace other economic resources and the costs of reproducing knowledge are generally very low and are further diminished by technological innovations and progress.

A brief analyze of the knowledge shows a picture of too much data, too many sources, too many formats, too many tools and too little integration. In our days the knowledge is amplifying faster then could be imagined. It is complex and it has an unmanageable volume. For example, the total new information issued in 2003 is equivalent to half a million new libraries and the amount doubled in 3 years (Barquin, 2006). The framework of actual and future amount of knowledge makes the organizations to compete more toughly with uncertain results. The solution is knowledge management. According to Barquin the knowledge management has to be focused on:

- Identify or nurture communities of practice;

- Pay attention to customer knowledge;
- Automate content and document management;
- Identify and disseminate best practices whenever possible;
- Deliver knowledge through Enterprise Portals;
- Change culture to reward sharing/collaboration;
- Utilize story telling to capture share of attention;
- Implement data warehousing environments, enterprise-level integration, and business intelligence solutions;
- Provide leadership to accomplish objectives.

Knowledge management is concerned with the entire process of discovery and creation of knowledge, dissemination of knowledge, and the utilization of knowledge. Knowledge management is a set of tools and processes, used by knowledge workers in an architected environment, created through an enterprise initiative, to obtain maximum returns from its data, information, intelligence and knowledge. Knowledge management is the process through which an enterprise uses its collective intelligence to accomplish its strategic objectives (Barquin, 2006).

Given the importance of knowledge in virtually all areas of daily and commercial life, two knowledge-related aspects are vital for organization's viability and success at any level: knowledge assets (to be applied or exploited) must be nurtured, preserved, and used to the largest extent possible by both individuals and organizations and knowledge-related processes (to create, build, compile, organize, transform, transfer, pool, apply, and safeguard knowledge) must be carefully and explicitly managed in all affected areas.

Societal knowledge management

Innovation and intellectual capital supported by IT lead to a broader involvement of the society into knowledge management and to the integration of knowledge management into societal needs. The solution is "knowledge environments to get the right knowledge to the right person at the right time" (Barquin, 2006).

Societal management is focused on satisfying the needs of society as a whole, generating favorable relations between the organizations and communities. "Societal knowledge management is the innovation enabler by providing the driving intellectual capital resources" (Wiig, 2004). But, "knowledge management is the view that globalization makes it a necessary activity to maintain or improve competitive stance. This has produced a societal and enterprise knowledge management "*movement*". This movement is based on the belief that 21st Century globalization has led to the 'Knowledge Era' where the fundamental competitive factor is intellectual capital when effectively utilized and applicable. The emphasis is not only on competition but on the endurance of quality of life, basic personal values, and broad global, societal, and enterprise responsibilities and values. This facet focuses on strategies, policies, and allocation of resources to build required intellectual capital on short term and long-term. It covers concepts as different as initiation of quick training programs to fill important societal knowledge gaps and creation of long-term intellectual capital capabilities by improving preschool education of children or building research and technology infrastructure" (Wiig, 2002).

Societal knowledge management acts in a societal knowledge system (fig.1) that allow the society to prosper, the organizations to wor

k smarter and individuals to increase their quality of life.

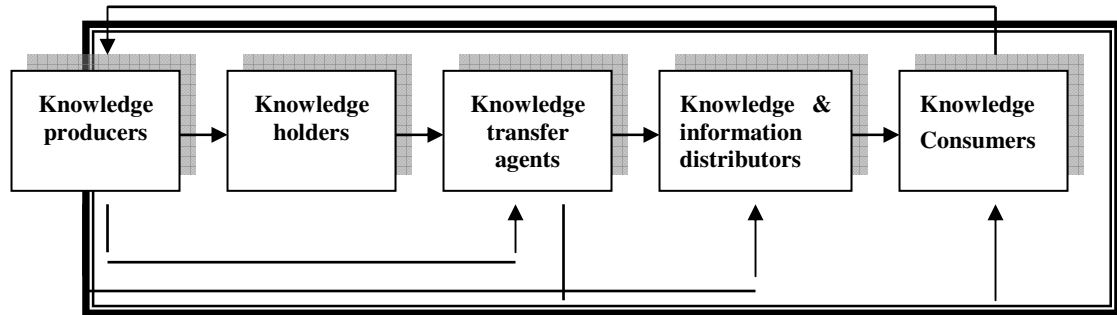


Fig. 1 Societal knowledge management system (adapted from Wiig, 2000)

This system “operates as a living organism with multiple goals, resources, information exchanges, flows of many kinds, and self regulating mechanisms. Unfortunately, some, such as the market mechanisms may too often be inefficient. The knowledge system changes and adapts to economic and social demands and it therefore is important to maintain the vision and overview for overall system and how it might operate in the modern, competitive society” (Wiig, 2000).

The main actors that behave into the societal knowledge chain are (adapted from Wiig, 2000): producers, holders, transfer agents, distributors and consumers, as for example:

- Knowledge producers such as: independent innovators, research institutes and companies’ research departments, universities;
- Knowledge holders: knowledge bases, experts, industries, public agencies, libraries;
- Knowledge transfer agents: primary and secondary schools, universities, professional firms, professional communities, individual professionals;
- Knowledge distributors: libraries (books), special publications, network (internet), media;
- Knowledge consumers: business, public organizations, specialized services organizations, public at large.

Societies consist of entities whose behaviors are determined by personal knowledge or intellectual capital embedded in systems, procedures, technologies, and computer-based systems.

The main societal knowledge management objectives are (Wiig, 2000, 2004):

- A stable, just, orderly, and secure society. This includes preparing citizens, organizations, and public agencies to be effective policy partners – to create sound public opinions – to engage in public debates and policy formation – to participate in processes to conceptualize, plan, decide, and implement public actions – to observe society policies – and to provide support for the administration;
- Acceptable level of quality of life, particularly through building, maintaining, and leveraging commercial and public intellectual capital;
- A prosperous society by developing its citizens to become competent knowledge workers and its institutions to be competitive;

- Strengthen societal functions and effectiveness towards implementing societal goals – e.g., public service agencies, law enforcement etc.;
- Provide infrastructure and general knowledge-related capabilities to make industry and commerce globally competitive;
- Increase citizens' capabilities to improve their lives, build knowledgeable workforce, and participate in societal functions;
- New challenges in societal knowledge system.

Organization's competitive advantages in societal knowledge system

The latest theories about competitive advantages focus on creating organizational strategic resources and capabilities. In the 'knowledge era', and more specifically, in the societal knowledge system the organizations need to take into consideration the creation of new capabilities, among four of them could be considered as fundamental: intellectual capital creation, the life cycle management, the integration of societal requirements into business strategies and the knowledge work force development (fig.2).

Intellectual capital creation

The shift from physical and financial capital to intellectual capital as an intangible strategic asset represents probably the core new competitive advantage creation. Intellectual capital is used to denote all aspects of personal tacit and explicit knowledge as well as structural intellectual capital, be it explicit, embedded in technology, or in other forms (Wiig, 2000). Knowledge acquired by intellectual capital is not able to be managed without IT and the new technology faster implementation.

The life cycle management

The life cycle management includes the entire life cycle of the product or service, across the entire extended value stream, from the extraction of raw materials right through to the management of its residue at the end of its productive life. To organize all activities and manage resources on the entire life cycle of the product or service is a real competitive advantage, considering cost reduction, increased productivity, environment protection issues and favorable market image creation.

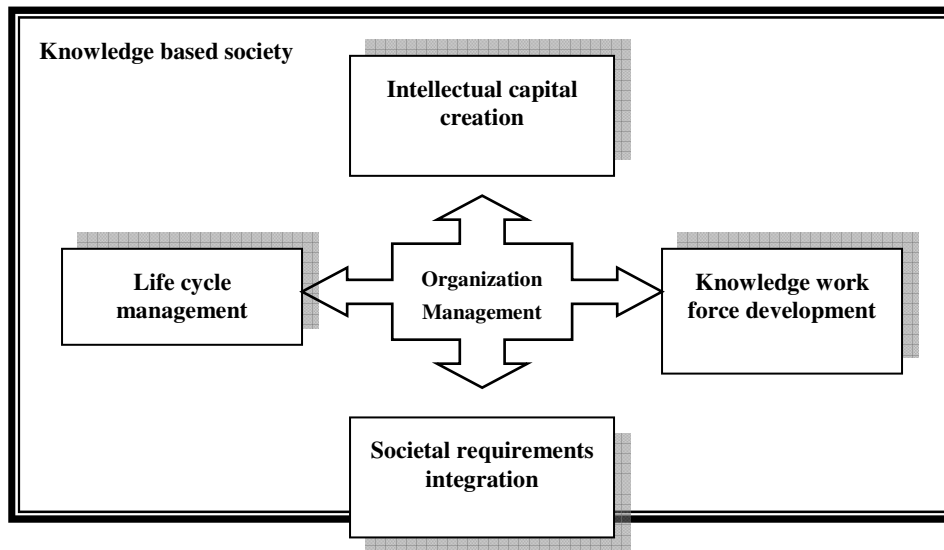


Fig. 2 Organization's competitive advantages in the societal knowledge system

The integration of societal requirements into business strategies

The societal requirements integration into strategies (including products and processes) is related to organization's capabilities and management competences to find priorities, to restructure appropriate knowledge and to understand and apply the best practices, usually based on common sense.

The knowledge the work force development

From the work force perspective knowledge is "a complex set of dynamic skills, know-how etc, that is constantly changing at the level of individuals". In this respect, Barquin (2006) relates that: knowledge-workers spend 15%-35% of their time searching for information, 50% are successful in finding what they want and they spend more time recreating existing information than producing new info. But, societies depend upon the capability of their work forces. An uneducated or unmotivated work force obliges the society to rely on natural resources to be successful, and even that is questionable. In today's global economy where intellectual capital determines competitiveness, a major objective is to develop and maintain the ability of its citizens to perform skilled and knowledge-intensive tasks. From the societal knowledge perspective, the organization needs to play an active role also in this area. To be effective, its role must be based on clear and flexible visions of what should be achieved, which societal results should obtain, and how it should be done (Wiig, 2000).

Some benefits of the organization's competitive advantages extended to community and individuals adapted to societal knowledge system are presented in the table 1.

The societal knowledge system implies organization flexibility that it resonates with broader, societal and political values and purposes. The organizations and people culture need to change towards the understanding of the convergence between economic rationality, technological revolution and environment protection. However, the organizations need to redefine themselves in terms of knowledge use for the increasing of competences in order to ensure the individual performance, commitment and creativity. It has to be made a distinction between the rhetoric and the reality, having in view the meaning and value. The rhetoric becomes real and real in its consequences. The societal knowledge management redefines organizations, its employees, its customers and communities because its resonance with and dependence on wider societal conceptions of the market and values is explained, developed and justified. The new reality legitimizes a humanistic, soft and knowledge-based strategic management in all organizations.

Table 1

Competitive advantages adapted to societal knowledge system	Major benefits for:		
	Individuals	Organization	Society
<i>Intellectual capital creation</i>	Knowledge-intensive skills performing	Increase in global competitiveness	Spread capabilities
<i>The life cycle management</i>	Potential professional areas for success	Improved performance and competitiveness	Consistently high quality and reliable public decisions and actions
<i>The integration of societal requirements into business strategies</i>	Satisfying employment requirements for greater competitiveness	Effective market actions that address real societal needs	Setting societal priorities that reflect a society with greater public acceptability
<i>Knowledge work force development</i>	Low unemployment and improved quality of life	Greater personnel retention and knowledge-building	Satisfying employment requirements for greater competitiveness

Conclusions

In the modern society the applications of knowledge management practices supported by IT based tools, have become important to pursue societal goals with success. Societal knowledge management have started to implement approaches to achieve well-defined objectives and this trend is accelerating as experience is gained and new insights of valuable applications of knowledge management are shared. That means that knowledge management is a potential for new practices in designing strategies and creating competitive advantages based on knowledge incorporation in societal system. Every organization, governmental or local institution and even individuals need to focus on clear goals seeking for (Wiig, 2004): making the target society more effective as a world citizen and global competitor; supporting continued pursuit of a balanced society and increasing effectiveness of constituents to improve their quality of life.

The knowledge management provides increased participation of more capable work force, increased participation by knowledgeable citizenry and improved social and economic environments.

In this context the organizations need to create and sustain new competitive advantages that could leverage societal needs and integrate them into the societal knowledge management system.

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