The New Management in the Knowledge Society

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Abstract: As the world struggles to rise from the recent downfall and prevent another financial crisis, which becomes more and more visible for experts all around the world, organizations had to change their way of thinking and designing strategies in order to survive. It has become clearer than ever that the most valuable asset organizations nowadays posses is information, and it is their responsibility to transform it into knowledge and that into innovation so that they could gain the competitive advantage on an ever-changing and more and more selective market. This paper proposes to highlight the changes that took or should have taken place on the management level in the organizations in the context of the knowledge society we all live in.

Keywords: knowledge, society, management, group, organization, innovation

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1. Introduction

Specific for the present are the organizations that are based on knowledge in a deep way, extended on a collective scale of group behavior and organization assembly. Within these organizations:

- the knowledge fund is understood as the main resource of the organization, decisive for its global strategic performance;
- intellectual-intensive processes are not only prevalent, but also determinant in the operation of the organization in achieving its objectives;
- the organization structures, for individual and collective actors, demands, roles and new responsibilities regarding the management of knowledge and processes related to it;
- organizational culture consensually establishes guidelines for perpetuating normative values related to creativity, competence, learning, communication;
- aspects of knowledge gain a vital role in asserting the identity of the organization, to ensure integrity and consistency in terms of structure, strategy, action.

The knowledge society is more than the information society and computer society, actually it involves them.

The knowledge society requires:

- expansion and deepening of scientific knowledge and the truth about existence;
- use and management of existing knowledge;
- production of new knowledge;
- unprecedented dissemination of knowledge for all people through new media (Internet, e-learning);
- recognition of the importance and explore methods of measuring the value of intangible assets.

We can highlight the following categories of knowledge:

- encoded knowledge, equivalent with the information, were explained by the holder and are found in a form ready for transfer;
- common knowledge, accepted as standard, without being formally explained;
- social knowledge about interpersonal and cultural relations and referring to widely shared values;
- embedded knowledge, tacit, related to a person's experience, ability.

2. Knowledge-based organizations

2.1 Knowledge as an innovative resource

If, at the beginning, industrial innovation study was focused on innovation itself, as the time passed it became more clear that there should be studied the organizational behavior specific patterns, which allow the innovation development. Each organization has its own way of development, based on a behavior that is hard to copy for other organizations, behavior that combines, in a unique way, the functional and technological organizational competences and capabilities. These are improved in time by accumulation, application and enrichment of intangible knowledge. The competitive advantage of one organization consists in the way this knowledge adds value to its products/services.

Knowledge-based organizations are found at the crossing of two of the most important aspects for the human nature: the knowledge and the organization, merged in a emblematically social construction for the collective competence ideas, intelligent action and durable performance. For those the knowledge limits problem is a perpetual preoccupation, every single one of them are permanently developing and testing the representations of the business environment, own mission and competences, making them intelligible for their members.

In operating of such organization the following processes are determinant:

- **innovation** (creation of new knowledge);
- **learning** (knowledge assimilation);
- **interactivity** (knowledge dissemination).

In table no. 1 are presented in a comparative manner the features of the organizations based on control and authority and those based on knowledge.

Table 1

Comparison between organizations based on knowledge and those based on control and authority
Source: ***Theme study developed within the priority project "Informational society – knowledge society" of the Romanian Academy***

Comparison criteria	Paradigm	
	Organization based on control and authority	**Organization based on knowledge**
Step objective	Classical resources, active, tangible, programmed activities	Processes and systems based mainly on intangible actives
Dominant logic	Working post logic and formal organization	Organizational competences based logic as performance sources
Time orientation	Retrospective (control and evidence)	Prospective (project engaging)
Step nature	Mostly ameliorative emphasizing continuity in existing systems	Mostly constructive emphasizing change development and management
Way of practice	Everyday, impersonal, centered on real deed aspects	Creative, personalized, centered on conceptual and strategic aspects
Way of materialization	Misbehavior corrective intervention, reactive behavior	Transforming intervention, based on projects, active behavior

2.2 Features of knowledge-based organizations

In the context of change consecration in the paradigm of organization theory, the hierarchical limits are becoming clear and the knowledge-based organization emerges as an alternative. Instead of a pyramidal structure, rigid and with predictable behavior, a handful of non-hierarchical forms appears, generally star-shaped, fig. no. 1. Typical behavior within is of entrepreneurial facture, but can consist in managerial professionalism attributes even if the hierarchical pyramid appears to be flipped.

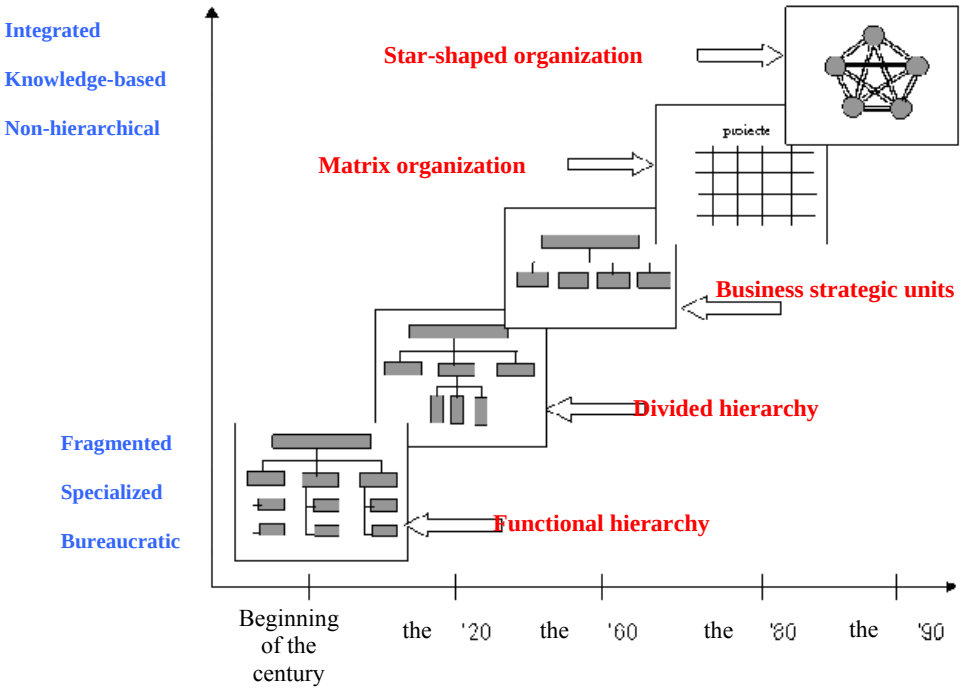

Fig. 1 *Evolution of the paradigm in the organization theory*
Source: ***Palmer, J. (1998) – The human organization. Journal of Knowledge Management, 1(4) : 294-307***

The main attributes of knowledge-based organizations in comparison with different types of organizations are presented in table no. 2.

Table 2

Attributes of different types of organizations
Source: ***Theme study developed within the priority project "Informational society – knowledge society" of the Romanian Academy***

Attributes	Hierarchical organization	Anarchical organization	Knowledge-based organization
Dominant organizational relationship type	Vertical (subordination)	Horizontal (interaction between homologues)	Multilateral collaboration
Dominant way of internal coordination	Directive	Transactional	Professional practice communities
Environmental stimulus effect	Pyramid top imposed actions	Ad-hoc reactions by the actors	Learning-based systemic self-organization
Grade of autonomy for the organizational actors	Reduce to tactical/operational opinions	High, with entropic effect on the system	High, with development effect
Typical behavior of the organizational actors	Reactive	Opportunistic	Proactive
Organizational system synergy	Based on formal rules, safety in use, rigid, limited	Based on conjuncture converging interests, safety in use is minimal	Based on shared purposes, safety in us is high

Managerial practices in the knowledge-based organizations are fifth generation practices (table no.3). Knowledge as a resource and organizational process requires dedicated intervention time, which is

imposed in a professionalized and formalized manner, excellence still present, but reserved for those who are vocationally practicing it.

Table 3

Managerial practice for different types of organizations
*Source: **http://www.entovation.com/assessment/fifthgen.htm***

	1st	2nd	3rd	4th	5th
	Technology as the Asset	Project as the Asset	Enterprise as the Asset	Customer as the Asset	Knowledge as the Asset
Core Strategy	R&D in Isolation	Link to Business	Technology/ Business Integration	Integration With Customer R&D	Collaborative Innovation System
Change Factors	Unpredictable Serendipity	Inter-dependence	Systematic R&D Management	Accelerated Discontinuous Global Change	Kaleidoscopic Dynamics
Performance	R&D as Overhead	Cost-Sharing	Balancing Risk/ Reward	'Productivity Paradox'	Intellectual Capacity/ Impact
Structure	Hierarchical; Functionally Driven	Matrix	Distributed Coordination	'Multi Dimensional' Communities of Practice	Symbiotic Networks
People	We/They Competition	Proactive Cooperation	Structured Collaboration	Focus on Values and Capacity	Self Managing Knowledge Workers
Process	Minimal Communication	Project to Project Basis	Purposeful R&D/ Portfolio	Feedback Loops and 'information persistence'	Cross-Boundary Learning and Knowledge Flow
Technology	Embryonic	Data-Based	Information-Based	IT as a Competitive Weapon	Intelligent Knowledge Processors

3. Managerial roles in knowledge-based organizations

Knowledge-based organizations induce a different vision regarding the way we develop and practice management. New types of actors and roles appear, and the typology of the managerial practices is radically changed.

The activities linked to knowledge creation (innovation), knowledge acquisition (learning) and knowledge dissemination (sharing) are suited neither for authoritarian guidance nor for strict hierarchical control. Their subtle character makes the distinction between their formal and informal sides fade, and official external control becomes useless and thus makes room for self-control.

The separation between the managerial and executive staff becomes irrelevant; the managerial act is focused on issues of strategic vision elaboration and facilitation of coordinate actions of competent and cooperative actors, who make themselves responsible, even on decisional scale.

The managers become more conceptual responsibility bearers (which means designing system and process architectures, solution validation, proposal ratification) than administrative power holders. The range of roles that the managers play enriches with those of: facilitator, mentor, moderator or promoter. The exercise of such roles requires that those involved posses strategic conception, interpersonal relation, project management and change management abilities.

Of paramount importance are elements like: role, accountability, reward, recognition:

- **role**: is there a specific part of the role of managers that encourage research and dissemination of knowledge?; Do they conduct themselves centered on innovation, learning, dissemination?;
- **accountability**: is it specified in the job description that they must track staff knowledge and share the highlighted?, Are they responsible for acting in the interest of organizational knowledge and not personal?
- **reward**: a manager is rewarded accordingly (formal or informal) for a knowledge-centered behavior?, Is there a cost for inactive behaviors in the field of knowledge (formal or informal sanctions)?
- **recognition**: is there recognition of active behavior, does it come from colleagues and/or top management?, Is recognition properly done, visible and opportune?

Complexity is the main feature needed for advancing from concept to project and then to the working system. One of the main risks consists in overbidding of the technological coordinate, in spite of the educational and cultural.

A project that wants to transform an organization in a knowledge-based one is not a computerization project, but a strategic guiding of the organizational maturation process one. The managers that lead this process must understand that proactive engagement of actors in this process can be achieved only by creating a organizational frame that is permissive and transparent, using incentives and adequate value systems, promoting innovation, active knowledge developing and disseminating.

Knowledge management can be defined as a strategically oriented step towards motivating and facilitating organization members to use and develop their own cognitive capabilities, by valuing information sources, abilities and experience that each one of them possesses.

In the organizational environment knowledge comes from information transformed by those who own it in efficient action capability, by integrative assimilating and understanding, followed by operationalization in data contexts.

The distinction between explicit knowledge, which can be formalized, accessed and communicated, and implicit knowledge, which is subtle, profoundly personalized, non-formalized and diffusely present in organizational context, is presented in table no. 4

Table 4

Features of organizational knowledge forms
Source: ***Theme study developed within the priority project "Informational society – knowledge society" of the Romanian Academy***

Organizational knowledge forms	**Organizational behavior manifestation levels**		
	Individual	**Group**	**Organization**
Explicit knowledge (articulated)	- professional qualifications; - permanent memories.	- projects; - cooperation rules.	- organizational structure; - working rules and procedures; - information and knowledge collections.
Implicit knowledge (tacit)	- personal experiences; - informal dimension of the functioning of the organization.	- common representations; - cognitive maps.	- organizational culture values; - "body spirit".

In their functioning the organizations build representations of their own knowledge state. They confront themselves with the challenge of finding ways to capitalize what they know, but also with the paradoxical observation that they don't have full control on what they know or don't know. This kind of knowledge gaps, which are seen in individual subjects as much as in groups, can be typologically framed as shown in table no.5.

Table 5

Knowledge gaps
Source: ***Theme study developed within the priority project "Informational society – knowledge society" of the Romanian Academy***

	Knows	**Does not know**
Subject knows	Knowledge that the subject knows it has (explicit knowledge)	Knowledge that the subject knows it does not have (known gaps)
Subject does not know	Knowledge that the subject does not know it has (implicit knowledge)	Knowledge that the subject does not know it does not have (ignored gaps)

To the intellectual actives capitalization process is associated the knowledge base concept, understood in an extended acknowledgement from the one in informatics. For organizations the knowledge base integrative refers to the personal dimension of knowledge present in human carriers

(individuals, groups) as well as to the artificial dimension of knowledge, present in intelligent computerized systems.

The strategic stakes of the XXIst century engage the organizations in new conducts, synergistically articulated:

- co-development (innovation) interactive generation of new knowledge;
- co-learning: mutual validation of gained knowledge;
- co-management: effective management of knowledge.

Knowledge-based building also has an inter-organizational dimension. In the contemporary society the organizations monitor extremely well the extern environment, thus also the similar organizations' behavior, recognize and follow field leaders, learn from one another, mimic each other, confront or ally themselves for creative purposes and utilization of new ideas. In such conditions the outer-organizational environment becomes richer in knowledge, and within its frame the organizations relate to a wide range of possible development and learning alternatives from external sources, but also to performance standards that are exacting and in permanent evolution as the knowledge steps forward.

4. "Boisot" – adaptive model of knowledge management

The theory is based on the concept of "informational good" which differs from a "physical good". Boisot separates the information from data, underlining that information is what an observant will extract from the data, depending on his own experience and prior knowledge.

The efficient transfer of informational goods is reliant on the emitters and receptors, which must share the same codification scheme or language. Knowledge will also have a context in which it can be interpreted.

Taking that into consideration it results that the emitter and the receptor must share the context as well beside the codification scheme. Boisot proposes two key points, which together form a conceptual frame known as "i-space":

1. The easier the data can be structured and converted into information, the easier the broadcast will be;

2. the fewer the data (structured this way) that needs a context in order to be broadcasted, the easier the broadcast will be.

The Boisot model ("i-space") can be viewed as a cube with the dimensions [Boissot, 1999]: codified – not codified, abstract – concrete, broadcasted – not broadcasted:

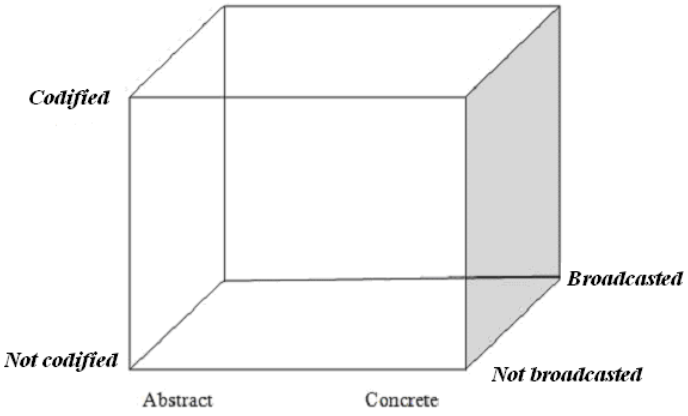

Fig. 2 *Boisot "I-Space" model*

The data are being structured and understood by means of codification and abstraction. Codification refers to category creation – the fewer categories, the higher level of abstraction for the scheme. Boisot model implies the fact that in many situations the loosing of context because of codification may lead to loss of important knowledge. This content needs a shared context in order for it to be interpreted and implies face to face interactions.

The codification activities, those of abstraction, broadcasting, absorption, impact and analysis contribute to the process of learning. Regardless of sequential development (and to a certain point it is demanding to be so) or not together they will form the 6 fazes of a learning cycle.

We describe in table no. 6 these activities.

Table 6

Learning cycle in "I-Space" model
*Source: **own contribution***

Faze	Name	Description
1	Scanning	Identify threats and opportunities in an available/unclear content Scan in the context of some models for the discovery of new visions that would end in the possession of an individual or small group The scanning can be fast when the data are coded and abstract, or very slow and random when the data are not coded and context dependent
2	Problem solving	The process of providing a structure and coherence to those visions In this faze a large part of the initial uncertainty is eliminated Problem solving in the region of the "I-space" model that is not codified is risky and conflict generating
3	Abstraction	The generalization of the new visions' appliance towards a wide range of applications Implies reduction to the most important features – conceptualization Problem solving and abstraction often work together
4	Diffusion	Sharing the new visions with a certain number of persons Diffusion of the well codified and abstract content towards a big number of persons will be technically speaking less problematic than the case of not codified and context dependent content. Only context sharing between the emitter and receptor can increase the speed of not codified data diffusion.
5	Absorption	Appling the codified new visions in different situations, in a "learning from executing" manner In time, codified visions will interact with the ones that are not codified, thus favoring their usage in particular circumstances
6	Impact	Including of knowledge in concrete practices Including of knowledge in technical, organizational rules or practices Absorption and impact often work together

In conclusion we can say that it is safe to use Boisot model for managing the knowledge goods of the organization throughout a learning cycle. Anyhow the Boisot model is not very known and therefore wide scale implementations do not exist.

5. Conclusions

By conducting an analyse of knowledge management, we consider that we provided a refined synthesis of the organizational knowledge concept. Starting from the general knowledge theories we have analyzed organizational knowledge in the perspective of the economic context.

Also, we highlight the more and more clear orientation from individual orientation towards group ones. Although, agreeing with the emphasizing of the socio-economical importance of the collective, we still believe that the core on which every organization is build still consists in a few number of persons. If we would like to represent the organization in a pyramidal manner, (using as criteria the importance that we assign to different type of employees) we would certainly tend to place some groups (as beginners, rookies etc.) at the base of the pyramid, reserving the higher spots for experts.

Our believe it that such a representation is incomplete, because experts should be found on every level defined. This, although, can not be realized unless we take into consideration the knowledge concept. Therefore, knowledge becomes the liaison that can ensure the unity of the whole structure. Those few employees that we call experts should not have a fixed position within the organization, instead they should be found in some form on every level, regardless of the fact they are experts in the field of economics, social or management.

Giving an expert the biggest functional dynamic we believe asks for systems build in order to sustain that action. After all investing in this direction a company would not be doing anything else than indirectly strengthen all compartments that are directly associated with the category of the experts that are involved.

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