

# MANAGEMENT BASED ON KNOWLEDGE – MANAGEMENT METHOD APPLIED IN ROMANIAN SMALL AND MEDIUM ENTERPRISES

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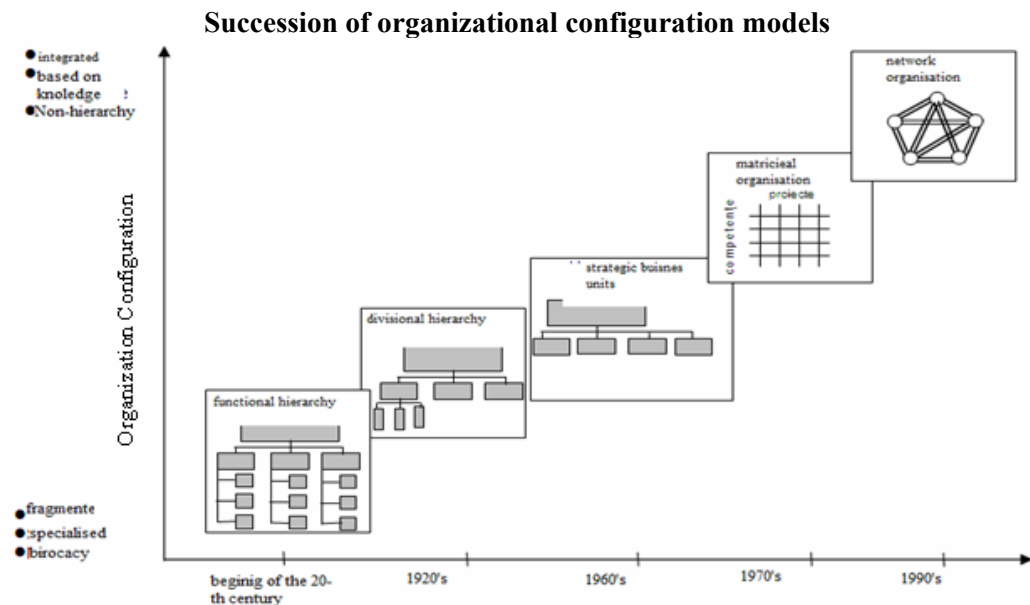
**Abstract:** Knowledge represents the accumulation of information that can be used to evolve, grow, as an individual and or as a company.

What has led to the creation of a knowledge based management and the necessity to apply currently such a new method of management was the informational explosion, labor division that led to the creation of specialized personal that was more knowledgeable in their field of activities than the managers that until recently managed their activities in the company.

Classic management based on hierarchies, decision making by the managers needed to be improved. Managerial practice generated a new type of management. It is named management based on knowledge and its merit is to integrate in the company, employs that are more than simple workers in their specializations, they representing the main source of development of the business, in a society where the information is the most important resource.

## 1. Introduction:

The succession of the configuration method of a business over the years before the management based of knowledge and the succession of the management generations of practice are illustrated in the following scheme.



Source: Palmer, J. (1998) – *The human organization. Journal of Knowledge Management*, 1(4): 294-307

**Table 1**

**Succession of the management generations of practice**

Organization's attributes	1-th generation	2-th generation	3-th generation	4-th generation	5-th generation
	Technological orientation	Projects orientation	Orientation to organization	Client orientation	Knowledge orientation
Strategy	Efforts of research and development	Concentrated on base activities	Integration between technology and basic activity	Coordination with clients in development	Interactive innovation systems
Forces of changes	Unpredictable	Intra-organization interdependencies	Systematic effort of R&D	Generalized, fast and continuous change	Kaleidoscope-type of change
Performance	Research-developed as auxiliary activity	Co-participation in cost effort	Risk-benefit equilibrium	Rapport between productivity and investment for information	Intellectual capacity and it's potential
Structure	Hierarchy organization	Matrix	Distributive coordination	Professional communities	Symbiotic - type of relations
Employees	Computational rapports	Proactive cooperation	Structured collaboration	Accent on values and potentials	Self leading experts
Functionality	Internal communication	Based on relations between projects	R&D based on based activity	Reaction circuits; continuous information	I/O Knowledge flux
Technology	Embryonic	Based on data	Based on information	Informatics as a competitive force	Intelligent processors of Knowledge

Source: [www.entovation.com/assessment/fifthgen.htm](http://www.entovation.com/assessment/fifthgen.htm)

Managerial type practices based on knowledge are of fifth generation.

Managers can't simply continue to do what they knew and usually did before in hierarchy type structures [Constantinescu Dumitru, 2002] and for that they need to do now they need new skills. Knowledge as a resource and organizational process needs a certain type of managerial intervention- management based knowledge.

Applying this type of management with excellences results can be realized, as in the case of applying other methods of management, only by those who practice management of vocation.[ Dragomirescu Horațiu, 2001].

**2. Management based knowledge**

**Forms of knowledge**

For companies knowledge represents information obtained and transformed by employees who have it in efficiently actions, through assimilation, understanding and applied in real situations.

Nonaka and Takeuchi, studied the forms of knowledge at organizational levels and taking some of Polanyi conclusions have noticed that there are 2 types of knowledge: Explicit knowledge witch is accessible and communicable and implicit knowledge who is subtle, personalized and diffuse present. Some of supplementary attributes of the knowledge, propose of Hedlund (1994) are presented in next table.

**Table 2**

**Types of organizational knowledge**

Organizational forms of knowledge	Levels of manifestation in organizations		
	Individual	Group	Organizations
Articulate knowledge	- professional qualifications - permanent memories	- projects - rules of cooperation	- organizational structure - work procedures - collections of information and knowledge
Implicit knowledge	- personal experience - informal dimensions of organizations work	- common representations - cognitive maps	- values of the organizations - "spirit of the body"

Businesses, in their functionality build representations that reflect their own level of knowledge. They must find ways to value what they know.

Conceptual base of knowledge of an organization is presented below:

**Base conceptual table of a organization**

<b>Action</b>			<i>Applied Knowledge</i>
Facts base Information systems, database of the organization		<i>Rules base</i> Applied knowledge	
<div style="background-color: #cccccc; display: inline-block; padding: 5px;">Know-how</div>			
<i>Common knowledge</i>			
<b>Interaction interface and actions</b>			

*Source: Le Moigne, J.L. (1993) - Sur l'ingénierie de la connaissance organisationnelle, Note de Recherche 93-02, GRASCE, Université d'Aix-Marseille III, Aix-en-Provence*

There are five important processes referring of knowledge [Nicolescu Ovidiu, 2006]:

A. **Knowledge** in an organization **is acquired** by learning of the employees that obtain information based on learning. Those employees will become workers based on knowledge;

B. By learning new knowledge is created fixed in inventions, innovations, projects, theologies, methods etc.;

C. **Knowledge** is used in individual actions and group efforts and are transformed in products, services and new knowledge under the form of KNOW-HOW;

D. All knowledge in a organization is kept in a database or archived on paper.

E. Management based knowledge give a great importance to the knowledge. For this reason, it protects the knowledge as with any other form of capital that helps in the development of a business. It is a difficult process and very complex especially when it is referring to tacit knowledge well know only by elite specialists.

Access to knowledge in a business is allowed in accordance with the level of competence and responsibilities of each employ. The advantage that an employ based on knowledge has over a simple worker is that it have still many knowledge of much aeries from the start to work in the organization, being the specialist in the field he works. The simple worker hardly have minimum of knowledge in the filed he works, many knowledge being obtained in time, from the accumulative experience.

#### **Ways to raise the level of knowledge in SME**

In a business that applies management based on knowledge, information and know-ledge of any filed can be used for the development of the organization are important.

Ways to grow the level of knowledge of a business are an integral part of a management based on knowledge. So that, the stages of evolution of a level of knowledge are as following [Nicolescu Ovidiu, 2001]:

A. **Recognizing knowledge in an organization** – stage where are identified the essential resources of knowledge. Here is realized the examination of the knowledge because they certain required conditions for to be used in an organization.

B. **Knowledge Reengineering** – presumes redesigning systems and process of the organization, internalizing essential activities and externalizing non-essential activities.

C. **Knowledge Networking** – stage where all knowledge from all fields is mixed and new information is born. The issue of the management based on knowledge is to improve cooperation in SME and to build mixed teams, to decentralize competences and decision making so every worker based knowledge to become decision factor.

D. **Motivation generated of knowledge** – manager based on knowledge knowing the important role of workers based on knowledge – knowledge workers [Drucker Peter, 2001] – offers them material advantages such as the possibility to become a shareholder in the SME, monetary advantages based on level of work done and contribution to the development of the SME, flexibility of working program.

E. **Knowledge intensification** – knowledge development by the participation of knowledge workers at periodically training, by increasing investments in R&D but especially by applying knowledge accumulated in SME.

F. **SME based knowledge** – stage where the manger is based on knowledge integrates the knowledge of the SME in a unit that have access for solving all problems when they appear. Having access to knowledge and basing all the time on knowledge workers the manager can create strategies based on knowledge.

Going throw all the stages above, the SME becomes a knowledge business. To maintain this status SME must learn continuously. SME learns throw it's workers. The thinking and behavior of the SME must be centered on learning. Key elements as SME to learn continuously are communication between workers and the existence of a powerful motivation to acquire, use, protect and bring in the knowledge of all activities of SME that give a business its value. The process of learning, in SME is individual and especially collective. There are 3 types of collective learning:

I. **Learning for adaptation** – is realized when workers change the environment in which they worked acquire new knowledge in the process of their adaptation to the new work;

II. **Change learning** – it appears after an information exchange between a medium and an organization, the organization updates its knowledge and applies the new acquired knowledge to its structures and processes. In the SME appear important changes, which result of keeping a continue connection between SME and its medium external and internal.

III. **Learning to learn** – the most advanced type of learning. This method supposes learning adaptive to the specific system of learning of each SME by concentration on process of learning, which generates and uses new knowledge, even if do not appear new changes.

#### **Characteristics of management based knowledge**

It has been showed that activities of producing knowledge (innovation), dissemination knowledge (communication) and acquiring knowledge (learning) are not generated by any authoritarian control or a hierarchical control. In the management based knowledge, differences between managers and executants becomes irrelevant, the manager becomes more a carrier of responsibilities (he project structures of systems and processes, validate solutions, make suggestions) than a carrier of the power, the manager is more a mentor, a moderator or a promoter.

In non hierarchical structure of SME that applied the management based knowledge appeared new types of „actors” and „roles” and the managerial practices is changed radical. New managers appear with managerial roles without precedent in previous hierarchies environments, such as „chief knowledge officer” and „chief information officer” responsible for projects of development of the competences, and of organizational learning.

There are more models of apply to practice of knowledge based management such as that proposed by Moon Kim: P-CMM.

We will present the model of knowledge based management named model of maturation of the capacity of the employees, based on the capacity of growth of the personnel, very close to management based knowledge of Romanian SME.

The targets of actions of this method include 3 components: people, processes and technologies.

The result of implementing this method will be:

- Development of human resources, a great number of workers can participate to activities of modernization and renovation of products and services;
- Harmony between motivating workers and organizations interests;
- Persons who have knowledge and essential abilities for the SME will be motivated to work for the SME for a longer term.

This method of management has 5 stages, each of them being realized by a number of processes. The five stages are:

1. Initial level – reflects the initial stage of the SME before this method to be applied.
2. Level two is the repetitive level – a level that is obtain by rewarding workers, and training them, by communication and creating a work space where they can acquire knowledge without the fear of errors that are inevitable for any beginning.
3. Level three is the definitive level – where the organization motivate the knowledge workers in function and of level of prepare and development of own carriers.
4. Level four is the leading level – where teams are being built, going to practices based teams and personal interests are harmonized with interests of the SME.
5. Last level is level five – optimized level - at this level, the SME has realized successfully the objectives by management based knowledge. That means knowledge workers learn continuously and are continuously stimulated to innovate. The competences of knowledge workers at this stage are in a continuous development.

This management model based on knowledge underlines the stages that any business must go over for to implement the knowledge management.

Otherwise, applying knowledge based management needs some action in a few major ways such as:

- ✓ Developing an internal database, by interactions with customers, suppliers, external and internal workers (even the internal workers can have information which the SME do not know it);
- ✓ Externalizing activities that are not vital for the SME and concentrating on those activities which are from principal field of activity organization;
- ✓ SME are organized of partial autonomous teams formed by persons that have acquired multiple knowledge, want to learn continuous and have organizing abilities;
- ✓ Integration in SME of knowledge-managers that usually start their activity as consultants;
- ✓ Reducing the number and the role of lower and medium level managers;
- ✓ Motivation of the employees, especially of the knowledge-workers „that decides their self how great will be their contribution to the success of the SME, how big will be the benefit of utilization of their knowledge”[Drucker Peter, 1998];
- ✓ Growing the investments in training, and specialization of the employees.

SME who apply knowledge-management, recognized knowledge and the accumulation of it as a primary resource. Other resource such as land, work and capital become secondary. But only knowledge itself doesn't produce anything, it needs to be integrated to the purpose of the organization that acquired them to realize the objectives established.

Knowledge workers, specialists are in the same time dependent of the SME where they work but and independent because they are the possessors of their own workforce and production means: their own knowledge.

The SME of the 21 century are in competition, fighting for keeping of the most important their resource: qualified workers.

### **Knowledge-workers**

Knowledge management has as a central element the knowledge worker. He is the worker of the SME that has the freedom of decision and the action in his activity zone.

But let's see in detail what a knowledge worker is, that person for which SME build a real methodology for attracting, motivating, keeping and using of his intelligence and knowledge.

Management literature from its specialists offer many definitions for explain the phrase „employees based knowledge”. The indian speciallist B. Maheswari consider that the workers based knowledge are persons who create new ideas, which use the knowledge for developing of the SME.

Another specialist, Reich R. considers that the importance of knowledge workers is given by:

- They poses knowledge and abilities that give the SME a incredible productive power;
- Paying for their training and remuneration is an investment not a expense, because of later profits;
- Because of their knowledge they represent a special type of capital, knowledge workers later can become entrepreneurs.

In conclusion a worker is considered based on knowledge if:

- He has general and specialized knowledge on many fields of activities;
- The positions in which he works can give him the chance to grow intellectually;
- The activities he realize in the SME must contribute to his professional growth;

- He always accepts the challenges of the position he is in and manifests the desire that he has a flexible work frame. His wish is to be evaluated in function of work quality and accomplished objectives only not after the fact that he could not adjust to the working program;
- He is always preoccupied with acquiring new information, being conscious of fact that information, knowledge means power, in a society that develop all the time;
- He wishes for a high standard of life both in his private life as in his social life, that he live in the SME when he works;
- He is an original person with a behavior that cannot be catalogued by standard;
- He is that witch wishes and encourages team activities;
- He focuses his attention on information that bring competitive advantages to the SME;
- Knowledge workers patiently searches for the work place he likes within the company;
- He is a worker hard to find, hard to train, but if he is motivating and keeping for a long time in the company, he can give great profits to it.

The role of keeping, motivating, stimulating of intelligence knowledge workers is of knowledge managers which we will present in continuation.

### **Knowledge managers**

Knowledge managers have been considered in a study appeared in Harvard Business School review as being T-mangers. The name has the origin in mission of the managers, that have relations of cooperate, symbolization of the horizontal line of T, the vertical line symbolizing the subordination relations.

In SME that use knowledge management the vertical line is almost inexistent. In this companies relations between managers based knowledge and workers based knowledge are especially based on cooperation and not at all of subordination, managers based knowledge learning even they from specialists of company.

We will present which are the differences that separate knowledge managers from other types of managers:

- They have higher levels of education;
- They have at least 8 years as manager experience;
- They accept and overcome with ease the challenges of managerial tasks;
- The objectives and strategies are concentrated on knowledge utilization.

Knowledge managers, because they build and implement knowledge management are exposed to many challenges, the most important of them is the big volume of the knowledge within the business on which they must use efficiently.

The actions that they realize for to apply the management based knowledge are:

- They make knowledge maps;
- Reorganized position and improve the workers behavior, preparing them for the role of knowledge workers;
- Develop internal networks of teams for solving the complex problems of any compartment and field of activity;
- They appeal to the knowledge possessors for taking and implementing the best decisions;
- They find business opportunities.

In knowledge management the possessors of power are the networks of specialists coordinated, trained by knowledge managers that can never know as much as all the group together.

### 3. Knowledge management - management method applied in Romanian SME – case study

Romanian society is at a starting point in knowledge management. There are many things that need to be understood before can be implemented the management based knowledge. There are still hierarchical structures that rule over the businesses, still is considered that employees, even employees based knowledge must follow orders blinded without to have a personal opinion that to be listened, in this cases the managers do not can or do not have the power or the interest to act like really knowledge-managers.

This study case shoe how in real life, a knowledge worker can make him important for a SME and can succeed to substitute the relation manager – dependent with relation manager based on knowledge – collaborator, adviser, specialist.

Here is the story, based on true facts.....

It was a beautiful morning on September, year 20... Iliana walks confident and for the first time throw the gate of a small and successful SME, called SC AXXA SRL. It was the third company in witch she worked, in a new field of activity, human resources. She did not know much about this field of activity but she has a passionate desire to try. Nothing can be so hard when you put in your mind to win.

TESA personnel from AXXA know what this job generally suppose. They did not exactly what traps it can have. All details, Iliana doesn't know but will learn from practice and reading the legislation, work code, Collective contract of work ....

The time has come to make the first cessation of contract that she wants to write and in a work book of the worker who leave the company. Iliana have big emotions because she was a great responsibility but for this work she was employed. She must do her job without mistakes. The document said „decision contestable in law”.....

She didn't fail! She was happy!

Training followed in the work protection field. The need for specialized personnel was high in an SME, and academics level of study was low within the employees. Desire to know make on she to graduate the internal listener course for the Quality Management System.

Even she did not believe that will grow up professional Iliana, after a few years within the SME, (she studied and kept busy and did not when the time flied), a new opportunity has become available for Iliana, accounting. When the proposal came from the administrator, Iliana said to herself... I'll TRY AND HOPE TO SUCCEED!

And now she is doing and the accounting.

The remuneration was never enough for her efforts, but because of her enthusiasm to learn and grow intellectual was big, that wasn't a great problem.

Today Iliana after accumulating so many knowledge of big interest for a Romanian SME she doesn't get commands from top management, but **collaborates** with knowledge worker that is Iliana, to find the best solutions in the fields of her activities.

### 4. Conclusions

Knowledge management is a method of management that appeared because the management needs to adapt of the Romanian society changes, especially and to the world wide situations, in generally.

So, to can know and use all information, a SME need of specialists: Knowledge workers and the managers: managers based knowledge that can use their knowledge. Practice demonstrated that the classic management based hierarchy doesn't it actually,



efficiently, so appeared a new type of management, a new method of management: management based knowledge.

The essence of this new type of management is given by the high level of cooperation between managers and workers based on knowledge. The authoritarian role is lower and the cooperator role is higher, in the SME that applied the management based knowledge. The knowledge workers are in the same time employees and own managers, being responsible for their decisions of any situations that are of their field of activity.

The primary resources for knowledge management is knowledge not land, capital or workforce, If a SME have information, knowledge it can easily acquired lands, capital and any other things.

The SME, being more flexible, apply frequently knowledge management because of next objective necessities:

- Integration in the E.U. make as the market of workforce to be opened, and capable to value human resource based on knowledge;
- A necessity is that of enhanced evaluation, treatment and remuneration of the human resource;
- To be competitive on the E.U. market, SME must have information, that can obtain and from their knowledge workers;
- Because of permanently changes the SME must be capable to adapt, survive all the time. They can do this forever being saved by knowledge workers that will find solutions for any business and situation.

What advantages have the SME that apply the management based knowledge? Here are the most important of them:

- Invest in human resource that becomes a source of ideas and solutions;
- They have information possess the knowledge, so they have the power!

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