

Building of knowledge society through support of lifelong education

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Abstract—Knowledge society presents in 3rd Millennium worldwide global strategic interest. Its building depends on perceiving of philosophy for creation, using and transmitting of knowledge to present, as well as future generations. Today there is necessary to give more attention then anytime before to this problem and to support every effort of interested institutions to participate at the creation and development of intellectual capital. Except of European Union organs, governmental institutions or schools, we can add here all organizations and companies that support lifelong education of their employees. Contribution shows to the necessity to build and develop knowledge organizations that are base of knowledge economy and competition in complex of economical processes.

I. INTRODUCTION

In present time managers realize that traditional sources connected with industrial era are not the only ones the attention is necessary to be paid to at present transition to knowledge society and knowledge economy. Knowledge is a strategic source for the 21st century, it can secure stable tempo of performance growth and competitive advantage. Therefore knowledge is more and more in attention, knowledge management has become more and more spoken about in theory and practice of organization management, regardless its role or business activity. The basic principles of knowledge management can be applied in a production company, business organization, educational institution, health service, and also in offices of state administration. Such new approach represents the fusion of concepts borrowed from various areas of human activities, e.g. artificial intelligence, creation of knowledge systems, reengineering of company processes, management of human resources or organizational behavior.

II. THE CONCEPT OF KNOWLEDGE MANAGEMENT

Knowledge has become an old new source for economic growth not only for individuals and organizations, but also for individual national economies. The concept of knowledge management is nowadays considered the most modern trend of company and organization development, but the interest in knowledge is not new. What is new is the frequency of using the terminology regarding data, information, knowledge, methods for its obtaining, transformation, management, transmission, etc. It is knowledge management that is a necessary step when creating future as a key factor of companies success in the 21st century. The new system of wealth creation appeared in the world. It more and

more influences the development of a society as well as business environment. Such development can be characterized as a movement from an industrial to knowledge society. Therefore it is necessary to point out the context concerning knowledge, know-how and abilities of people, their development and connection to a learning organization at the change of company culture to knowledge one.

In expert literature the notions as „*managing knowledge*“, „*management of knowledge*“ or „*knowledge management*“ can be found. Although these expressions are very similar, they actually differ from the content point of view. We can see attention being given to knowledge at several levels:

- multinational level (knowledge society),
- national level (knowledge economy),
- organizational level (knowledge management),
- level of knowledge managing [1].

At this hierarchy, at higher level, there is higher degree of generalization [2]. While at the level of knowledge management there is work with particular knowledge, resources and procedures how to obtain, process, enable and exploit this knowledge are formed, at organizational level the subject of matter is suitable environment for their creation, sharing, development and exploitation. The basic task at a national and multinational level is the creation of economic and political frame, in which lower levels will be moving. Individual organizations and companies active at national as well as multinational level are a connecting element. Within their activity they can use knowledge management principles at an organizational level and use knowledge management outputs in the context of appropriately created and maintained corporate culture for their work.

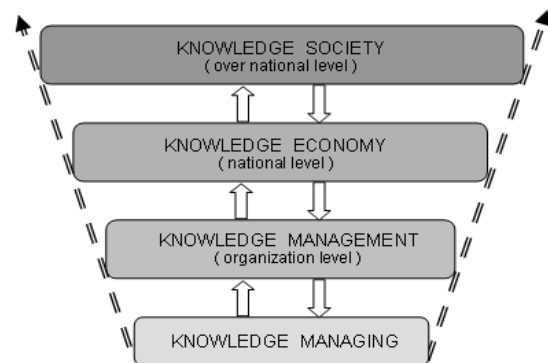


Figure 1 Levels of attention given to knowledge (according to Bureš, 2007)

Knowledge can be given attention at several levels, its explanation is discussed among theoreticians and practices, but it is still not very clear nowadays though. E.g. Bureř depicts knowledge management as a basis for further levels of knowledge management (figure 1). Knowledge management is therefore the basis the products and outputs of which can be applied at organizational level. The organizational level creates a basis for knowledge economy at national level and also for knowledge society at multinational level [3].

Knowledge economy and the competition based on knowledge is not the fiction of contemporary authors of literary publications or contributions in academic magazines, but it is the reality, that concerns the citizens and various organizations in the EU. The Organs of the EU create at multinational level assumptions and conditions for realization of particular steps at national level of individual member states. The arguments for such statements are also the presidency of European Council conclusions from the meeting taking place in Lisbon in 2000 with the goal to approve the new strategic goals of the EU. So-called Lisbon Strategy was adopted for stimulation of economic growth and employment. The concept of knowledge economy is mentioned here in several connections, mainly as a part of strategic goal for the next century. Literally, it says: *“The European Union has a state strategic goal for the following decade – to become the most competitive and dynamic economy in the world, based on knowledge, that will be able to maintain economic growth with bigger volume and quality of job and bigger social coherence”*.

Lisbon strategy is the EU program for unifying economical growth, competitiveness and employment on one side and social and environmental tenability on the other side. It stands on three pillars:

- Competitiveness (economical pillar),
- Social coherence (social pillar),
- Tenable development (environmental pillar).

The goal of Lisbon strategy is to persevere in European model of society for present and future generations in conditions of growing global competition and ageing population [4].

Multinational level is, besides the EU, also represented by other institutions, e.g.: Organization for economic cooperation and development (OECD), Organization of unified nations for education, science and culture (UNESCO), etc. Individual scientific and research projects can be considered a part of multinational level that are realized with the EU support, finance, e.g. from 5th frame EU program. The research results also connect with multinational level and knowledge economy which was published by World Bank in 2004 about the countries preparation.

European Council in Lisbon in 2000 defined a goal to make the EU the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth and greater social cohesion by 2010. The idea of creating a European research area that the Committee announced as “Towards a European Research Area“ became one of the key elements of the Lisbon strategy. The head of states and governments agreed on the necessity to increase the investments in research and development to 3% of GDP by 2010. However, in 2005 the average investments of the EU in

science, research and development were only 1,84 % of GDP, in 2010 only 2% of GDP.

According to the above mentioned facts OECD concluded the following conclusions about knowledge economy [4]:

1. Good economical basis is very important for the stimulation of knowledge economy. For example it can be effective education policy of the state, securing equipment of less educated part of population by proper abilities with the aim to avoid splitting the knowledge.
2. Development of knowledge depends on four main pillars: innovation, new technologies, human capital and company dynamics.
3. Globalization is the fact that influences all four pillars of knowledge economy. It is not new, but nowadays it is strengthened by international mobility of experts, information and communication technologies, quicker and cheaper transport, liberalization of business, global capital markets, etc.
4. It is necessary to develop social capital of organization, new practices of knowledge management and organization innovations with regard to deepening knowledge economy contributions.

III. STRATEGIC DIRECTION AND GOALS IN EDUCATION FOR SLOVAKIA

The relationship of a state towards knowledge economy can be described through strategic government documents and the approach of the state's apparatus. When creating conditions for the development of knowledge economy, the government emanates mostly from strategic documents of multinational level. E.g. At multinational level the organs of the EU create assumptions and conditions for the implementation of particular steps at national level of individual member states. In 2000 European representatives adopted the "Lisbon Strategy" in order to stimulate economic growth and employment. The Lisbon Strategy represents a significant document for the Slovak Republic. Political parties, the government, entrepreneurs and trade-unions agreed on its implementation. Although the representatives of different political parties have their own opinions of the necessary steps to achieve its goals, they agree on the final output of this process that means, on the EU as an association of prosperous economies based on the value added of human capital which will be transformed into sophisticated technologies and innovations.

There are of strategic documents at Slovak national level, e.g. *National Strategic Reference Framework of the Slovak Republic for the period of 2007-2013*. According to this framework, innovations, informatization and knowledge economy are along with infrastructure, regional accessibility, human resources and education, the strategic priorities of the Slovak Republic [5]. Other specific priorities as the support of competitiveness of companies and services through innovations, informatization of society, research and development, modernization of health service etc. are monitored within the fulfillment of this priority. Operational programmers where one is focused on knowledge economy are its part as well. According to it, the operational programme within the strategic priority 2. *Innovations,*

informatization and knowledge economy, implements these specific priorities:

- 2.1 The support of competitiveness of companies and services through innovations,
- 2.2 Informatization of the society and
- 2.3 Research and development.

The main goal of the operational programme is *"a significant increase of competitiveness of industry and services based on a better use of existing factors of economic growth and the creation of new, knowledge-based resources of sustainable economic growth"*.

Strategic directions and goals of the EU in education, which are also decisive for Slovakia:

Goal 1: To enhance the quality and efficiency of educational systems of the member states.

- 1.1 To improve teacher preparation.
- 1.2 To develop skills for knowledge society.
- 1.3 To guarantee access to information and communication technologies for everyone.
- 1.4 To increase the number of scientific and technical subject field students.
- 1.5 To use the existing sources to the nines.

Goal 2: To make access to education easier for everyone.

- 2.1 To open learning possibilities.
- 2.2 To make learning more attractive.
- 2.3 To support active civil life, equality of opportunities and community cohesion.

Goal 3: To open educational systems to a wider world.

- 3.1 To strengthen relationships with the world of work, research and the whole society.
- 3.2 To develop the spirit of entrepreneurship.
- 3.3 To improve learning foreign languages.
- 3.4 To enhance mobility and mutual exchanges.
- 3.5 To strengthen European cooperation.

Small business and medium-sized enterprises are also an important part that has to be paid attention. It is necessary to focus on solving information and communication technologies for the sector of small and medium-sized companies that need the information about the possibilities of the practical use of solutions based on knowledge. The capital and the resources from the EU's structural funds in order to be able to implement these solutions are of course necessary as well.

Knowledge society is therefore more than common liability to increase research and development, it covers every aspect of economy where knowledge is the basis of added value – from the production of sophisticated technologies, information and communication technologies, through knowledge intensive services, to creative branches as for example media or architecture.

If a process of building a society based on knowledge economy advances, immediate commercial effects from knowledge production, its dissemination through educational processes and results application in a whole complex of economic processes will originate. It will be possible to appreciate, promptly and universally, what science, knowledge and education bring. Centralizing

academic and professional capacities will allow achieving, based on customer approach and corporate order, real economic effects, which are also acknowledged by the market economy influence. By implementation and application of knowledge management practically, in strategic meaning, we can expect from organizations:

- return on investment into human capital (qualification, capability, ...),
- assessing human capital (sharing the vision, philosophy, the goals of an organization ...),
- management of self-development by an individual / team,
- higher working onset,
- better productivity, efficiency,
- the growth of added value orientation,
- higher quality products which will satisfy constantly more demanding customers,
- gaining a competitive advantage, increasing a company competitiveness,
- improving the image and occupational reputation of a company,
- long-term perspective of employing individuals as well as an organization.

The beginning of 3rd millennium means an era in which the character of business enterprise changes. Management has to cope with new methods using present possibilities. A new time period brings new hope as well as hidden threats. One of them is a careless attitude towards the recognition of an unusually fast-progressing development. Markets, customers, technology and competition constantly change. If a company wants to be successful, it has to change itself, otherwise the key competence can easily become the key inconvenience, which might lead to a setback.

IV. KNOWLEDGE MANAGEMENT AT ORGANIZATIONAL LEVEL

The ability of a man to transform data to information and lately to useful knowledge can significantly change the character of the work, education and everyday life. Human ability to create, obtain, model, represent and update complex and interdisciplinary data, let us say, the information about new and many times very varied sources, is still growing. But these possibilities that are hidden in information transformation can be fully used only by the help of research, tools and methods for knowledge obtaining, their classification, and organization, using and further dissemination. The theory and practice of knowledge management is nowadays closely related to it.

The basic principles of knowledge management can be applied in a production company, business organization, educational institution, health organization as well as offices of state administration, etc. At this level, increased attention is paid to knowledge, system and systematic work with it. Such a new access presents the merging of concepts from various areas of human activity, as artificial intelligence, the creation of knowledge systems,

reengineering of company processes, management of human resources or organizational behavior.

Knowledge management can make work with documents, mainly the content, as well as with people more effective. It can also contribute to a natural connection of both of these components. Published definition of this notion can be stated:

- Knowledge management can be characterized as a systematic process of finding, choosing, organization, concentration and presentation of knowledge in such a way that will help to increase the level of employees in a company, understanding the particular areas. Knowledge management helps the organization to achieve deeper view and understanding the problems mainly according to the use of own experience and intellectual ownership. Specific activities of knowledge management help an organization to orientate toward obtaining, storing, sharing and using knowledge in the areas with existing problem solution, dynamic learning, strategic planning, decision and others. It also protects intellectual equity of organization before destruction; contributes to company intelligence and provides greater flexibility for an organization [6].

- Knowledge management itself is neither a technology, nor a file of best processes that an organization can have and implement in practice easily. Knowledge management is also status of the mind that means access that must be extended within the whole organization, if to be successful. Such access must also include the culture of learning and cooperation among individuals, working groups or organization units of a company. It means that knowledge management. It means that knowledge management inherently concerns people and processes in which people share information, build knowledge on their basis and contribute to the development of common, shared company knowledge [1].

Knowledge management expects and at the same time uses the ability of people to gain, share and develop knowledge, this way creating added value reflected in performance and qualitative characteristics, increasing the value of a final product for a customer [7]. It is knowledge economy management and knowledge society, i.e. the society based primarily on intellectual capital production, the characteristic of which is:

- producing crucial amount of goods (i.e. knowledge services served to satisfy the needs),
- it influences satisfaction of needs and creation of their structure the most (i.e. the needs satisfied by knowledge and skills development and realization are the most significant human needs),
- it supports intensive innovative processes,
- is the Centre of economic accumulation (i.e. fixed capital, human abilities and relationships are gathered here),
- clear surplus, which becomes the source of intellectual capital accumulation, emerges here.

The need and necessity of a company to react in a flexible way to constant changes, requires hiring people with high level of job competency. This requirement can

be either fulfilled by searching and hiring skilled and for the given profession trained people, or the other possibility is to educate highly qualified employees in accordance with own strategic interests and needs. That assumes a sophisticated and systematic complex system of preliminary growth care and organized creation of conditions for building professional career.

V. LIFELONG PROFESSION'S EDUCATION

The support of professional education organized by the employer's subjects is the basic assumption for further development of organizations. It is also necessary to involve all professional categories of employees in further education, i.e. manual occupations, technical and economical professions, as well as managers. A participant of a company education needs to see significance of attending it. Therefore he should be informed in advance about the advantages resulting from it, whereby he is more motivated in his studies. Company education can be distinguished in three basic principles:

A participant of company education needs to see the purpose of his task, therefore he should be informed ahead about advantages resulting from it and thus he gets motivated to education. Company education can be distinguished in three basic approaches:

- **learning taking place in a company through educational activities** – that react to the current needs of individuals or a company and they lead to removing the differences between real and required qualification and which do not have educational or developing effect because of their casualness,

- **systematic access to education** – it connects a company and personal strategy with the system of company education as one of personal processes. Company education is, in terms of such access, considered a systematic process in which through the changes in knowledge structure and the employees' skills, the changes in their behavior occur,

- **conception of a learning organization** - is a complex model of people development within various types of organizations (the sequence is: learning company → learning organization → learning society). In such an organization, the employees learn continually at every opportunity, from everyday experience. It is a deliberate process in management that enables learning faster than the changes enforceable by the environment occur. Through employees' education, a company becomes eligible to create, gather, transfer, adjust and apply knowledge in a broad context of interior and exterior environment and modify its behavior according to the needs. In this context we can thus think about the rising conception of knowledge management, i.e. about the approach to education, exchange and application of knowledge in a company, improving human capital as one of the components of intellectual capital.

The status and significance of employees' education in a company comes out of the assumption that economic and social situation in a company is markedly determined by the development as well as regulation of educational activities of manpower and the extent of their preparation for the task fulfillment. The goal of employees' education is to achieve such a qualification level that meets present and mostly expected situation in science, technics and

technology in its social context together with the development of an employee's personality [8]. What is necessary to consider crucial in this process is the change in inner relationship of a person toward himself, to achieving the situation when a person, because of his own beliefs, in accordance with the need of a profession, as well as in accordance with the needs of a company, wants to learn, does not wait for the stimulus from others, thus he becomes the subject of his own learning and education.

VI. CONCLUSION

The development of business in a competitive environment depends, to a great extent, on the ability to identify with the knowledge of people and use their skills, experience and knowledge faster and in a better way than competition. It is a strategy of gaining competitive advantage as a basic condition of success just by managing knowledge [9]. Effective knowledge management requires knowledge, contributing for the key processes development and organization activities, to be available for the right people at immediate practical use in time.

Education now and in the future has to emphasize basic attributes of a modern human being, mostly work with information, effective communication, productive creative thinking, personality development, the role of a human being in a society and the influence of the environment on a human being [10]. A modern human being must be much faster in acquiring new knowledge and abilities and in handling new principles. In present turbulent stage of society development it is inevitable to take care of the staff, the people realizing the changes, but mostly their up-to-date and complex preparation in the system interrelatedness of these aspects that affect all the features of social development. When talking about employees' education and development, we have to keep in mind that people have to learn how to act, negotiate and think

productively. Then they will be able to move forward the future that started yesterday in a creative way.

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