

Knowledge Management as a basis of the Knowledge Society

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Abstract The contribution is targeted at the knowledge management as the basis for the knowledge society. The aim of the contribution is to describe the mutual relations among the knowledge society and knowledge management which has to create a system, where the knowledge is created, developed and used. The knowledge economy is the economy, where the determining factor is the knowledge and its use for increase of the well-being. It is about the formation of knowledge, but especially about its use and distribution. And this is just one of the main tasks for the knowledge management. At the end it can be stated, that the knowledge management allows to disseminate the individual knowledge all over the organisation, whereby it creates the knowledge with higher level – knowledge organisation.

Keywords – knowledge management, knowledge society, knowledge economics, knowledge organisation.

I. INTRODUCTION

Today is the actual problem the economic depression, which came from USA to practically all the states, but also to the European Union states. These new conditions put more stress on the companies. Enterprises are today exposed to the situation of permanent menace due to economic crisis, which passed from the bank sector to real economy. Enterprises reduce their production due to the crisis, do not have sufficient financial sources available and have a very limited possibility to acquire external sources, subsequently they discharge employees and reduce working hours.

As a paradox the economical crisis is bringing many positive challenges and opportunities.

Enterprises are compelled to implement new access to solution of the traditional but also of the new situations and problems.

Also educational institutions, which forms today considerable majority of the modern science, are indispensable part of the problem process solutions.

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Universities are pool of creativity, new attitudes and talents, who are of vital importance for continuing growth of the society intellectual level.

One of the options, which can help to companies, is use of knowledge, especially its usage and propagation, and this is just one of the main tasks of the knowledge management, of the knowledge economics and in this respect also of the knowledge society.

The goal of the companies is the effort to support their intellectual capital with correct set up of the knowledge management and also with new attitudes and tools for sharing information, communication and cooperation. These companies have bigger chance for overcoming the crisis and create added value during solution of local but also of global problems. The starting point for the companies is the support for sharing the knowledge, ability for permanent learning, creativity and innovative solutions of the problems, and this is the focus of the knowledge management.

At today's time of the knowledge society the requirements of the companies upon its employees are all the time growing - especially in the fields of new attitudes to the education. The ability to continue in learning and applying new methods and tools during solution of the problems is supporting the competitiveness of the enterprises. They have to invest in new technologies and tools of the knowledge management in order to support and get more effective run of their intellectual capital.

The basis for information society is the information whilst the knowledge is the basis for the following stage of development – the knowledge society. The knowledge society means that the knowledge became the decisive factor of the life quality.

Usage of knowledge belongs into the knowledge economy. The fact that the knowledge plays very important role in economics isn't new idea.

II. THEORETIC PIECES OF INFORMATION OF THE KNOWLEDGE MANAGEMENT AND OF KNOWLEDGE ORGANISATION

Knowledge management (KM) is already an accepted reality. Reputable rule, that for the development of given organisation are important people, is getting a new dimension. Not some people, but people with their specific knowledge which is usable by the organisation and can help to reach its goals.

In the professional literature there can be often found various explanations of the term knowledge management.

Knowledge management (KM) is a discipline, which ensures propagation of individual knowledge all over the organisation and herewith it is possible to create knowledge at the higher level – knowledge of the organisation.

According to the authors Bures, V., Cech, P. (2007) has the knowledge management more different definitions:

- KM is a process of creation a value from organisational immaterial assets. Simply said the knowledge management studies the ways how to use best internally and externally the knowledge.
- KM is about providing the correct knowledge to the correct people in correct time, so they can made the best decisions.
- KM can be considered as premeditated proposal of processes, tools, structures, etc. with the intention to increase, renew, share and improve the use of knowledge represented in any of these three components of the intellectual capital – structural one, people and social one.

In concept of the author Trunecek, J. (2007) the knowledge management, society, economics, enterprise is today still highly controversial. The economical and social changes are projected into the changes in management of the companies and their stream continues and it will continue also in the future. Today we are in a stage of articulation of the paradigm, but its shift will follow in the future for sure.

From the science development according to the author Kuhn, T (1997) who explains in his publication „Structure of the scientific revolutions“ quite complex cases completely, with all relations and also with the development dynamics. In the most general sense it is the way how we see world concerning his comprehension, understanding, explication. Kuhn's concept was originally based upon the physics, but later it was taken also to the field of social science. (1)

On the basis of the theory for science development according to Kuhn there can be specified new paradigm of the knowledge society, which is born as reaction to the society crisis. Management of the company in the knowledge society has to be then analysed and characterized in the context of the dynamics of actual social development. It is necessary to put into mutual dependencies terms as knowledge society, globalization, new economics, knowledge economics, information and communication technologies, knowledge management, productivity of the knowledge workers, etc.

From the report „Defining the knowledge economy: knowledge economy programme report,, from Brinkley, I (2006) is obvious, that its main target is testing the definitions of the knowledge economics from various reports, authors, institutions, etc. The author Keith S. (2002) specified the knowledge economics as „*The weakness or even complete absence of definition, is actually pervasive in the literature... this is one of the many imprecisions that make the notion of “knowledge economy” so rhetorical rather than analytically useful*”.

Definitions of the knowledge economics are resulting from other reports: “... *one in which the generation and exploitation of knowledge has come to play the predominant*

part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the most effective use and exploitation of all types of knowledge in all manner of economic activity” (DTI Competitiveness White Paper 1998).

“the idea of the knowledge driven economy is not just a description of high-tech industries. It describes a set of new sources of competitive advantage which can apply to all sectors, all companies and all regions, from agriculture and retailing to software and biotechnology” (New measures for the New Economy, report by Charles Leadbeater, June 1999).

“ economic success is increasingly based on upon the effective utilisation of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage. The term “knowledge economy” is used to describe this emerging economic structure” (ESRC, 2005).

“the knowledge society is a larger concept that just an increased commitment to R&D. It covers every aspect of the contemporary economy where knowledge is at the heart of value added – from high-tech manufacturing and ICTs through knowledge intensive services to the overtly creative industries such as media and architecture” (Kok Report, 2004)

How is obvious from the publication Nonaky-Takeuchiho (1995), defining the term of knowledge organization, it rely upon the author Senge's learning company (The fifth discipline: the art and practice of the learning organization), it is also based upon the Drucker's opinions about this topic and opinions of many other authors.

Knowledge organization has to be understood from this point of view as a complex attitude, which is not targeted only upon the intellectual capital and its management, but it is striving to understand this topic as a part of a wide context of the effectively managed company, especially effective management of the knowledge in company can be taken as a part of the complex company management, which operates in the knowledge society. The knowledge is understood outwards as the decisive competition advantage and inwards as a factor strongly increasing the synergy of the company management system only in the case, that it concerns productive knowledge, acting in line with other management components.

It is possible to proceed from the presumption, that in the knowlwdge society already came to shift of the paradigm from function model to the process model, including all the consequences, which this fact brings about (horizontal organisation, new approach to the strategy, team-work, coaching, customer imperative, etc.)

III. KNOWLEDGE MANAGEMENT VERSUS INFORMATION MANAGEMENT

The knowledge management is today often used in various organizations. But its introduction brings about many problems, which include insufficient number of methodics,

introduction of the knowledge management or information about these methodics.

Today we understand the knowledge management as management discipline, including mainly formation of the knowledge organization, which is characteristic by intensive realization of the knowledge processes and by usage of the knowledge resources.

But the practise of building up the knowledge management shows, that many members of the executive believe the knowledge management begins and sometimes ends by building up and implementation of sophisticated information technology. Its usage is then in the practise often the only basis for introduction and following realisation of the knowledge management in the organisations.

In the practise according to the author Bures, V. (2007) it has to be distinguished between the terms „knowledge management“ and „management of knowledge“. (2)

The reason is that both terms are understood as two different levels for possible work with knowledge. The term „management of the knowledge“ is perceived as manipulation with concrete objects, which are the pieces of information, while the „knowledge management“ represents rather the management of company based upon knowledge, or management of organisation oriented by knowledge. In contrary to this the „knowledge management“ is using the outputs from the „management of knowledge“ activities for its activities and to reach its own goals, which are in most cases at the level of the organisation or single person.

Similarity can be seen for example with the English term „project management“, which can be translated as „management of the project“ or as „project management“. The former term indicates management of a concrete project, management in the sense of setting up, fulfilment and checking its time, financial and concrete tasks, use of software applications, use of available tools, techniques or methods, the second term – the project management – means management of the company oriented according project, that means management of single orders in the organisation and run of the whole company on the basis of single projects. It is obvious that in both cases there are different terms. As the management of the project is necessary part and subset of the project management, so the management of knowledge is basis for the knowledge management.

In an interview with the knowledge theorist and journalist Yogesh Malhotra, which was published in 1999 by CIO Magazine, we may find this definition of the knowledge management: The knowledge management gives its attention to the critical questions of the organizational adaptation, survival and competency vis-a-vis to more and more discontinuing changes of the environment. It includes especially the administrative processes striving for synergistic combination of data and capacity for processing of information and information technologies and creative and innovative potential of man.“ According to the definition there isn't any equal sign between the knowledge management and information technology: they became only the tool for

performing the knowledge management according to the author Krizova, K (2007).

The capacity to understand and use the relations between knowledge management and innovation process are acquiring in today global competitive environment more and more importance. Watching and analysing the knowledge management of innovations provide the society with instructions, how to take concrete steps for improvement of its echo by overcoming the traditional limitations, concerning the innovation created by culture and history of the human society.

The concept of the information management according to the Czech terminology data base for librarianship and informatics sciences is as follows:

„Information management is a practical skilled activity, performed in the context of concrete organization, targeted to use of information in the processes of decision making and controlling and to integrating of the information resources and activities into the company processes. It deals with design, implementation and operation of the systems and services, covering the processes for acquiring, processing, storage, presentation and distribution of information. Theoretical background is created by informatics, information science, system analysis, system engineering and management disciplines. The technological basis is represented by informatics and communication technology. Vodacek (1997, 19-29)

From the above mentioned definition of the information management it follows that in relation to the knowledge management and information management it is necessary to specify this relation as a certain form of dependency of the knowledge management upon the information management.

„The knowledge management represents the more complex processes than the information management and so the efficiency of the knowledge management is up to a certain level influenced by efficiency of the investments into the informatics,“ Katolický, A. (2003).

It doesn't substitute the knowledge management, but it is fading into all the manager activities. Management taken in that way requires its specific way of work and revision of priorities in comparison with the company management. There is important the stress upon sharing and use of knowledge, strengthening of purposeful activities and supply of new activities into their sets. Generally, here is requested higher system and complex attitude, bringing about demands especially in two levels:

- in step by step increase of investments in the company informatics systems and informatics technologies;
- in permanently growing interest about the human factor.

IV. CONCLUSION

Today many organisations become aware of the fact, that the traditional resources, connected with the industrial age, are not the only one, which has to get appropriate attention during the contemporary transition to the knowledge society and to the knowledge economics. The knowledge is becoming one of the strategic resources of the organisations, which should ensure their stable growth of performance and competitive advantage. Therefore its management is acquiring more and more importance. For this reason the knowledge management and connected activities are beginning to be used very often in various organisations today. Thanks to the knowledge management the organisations can build up their competitive advantage, based for example on the knowledge covering the best procedures used in the organisation, or on the knowledge representing the latest advancement in the development at the field in which the company is active. With the age of knowledge and knowledge management are connected many changes, of course. It means fundamental changes, covering many areas from the informatics technology up to management of human resources. All these changes should be monitored by the organisations and used for reaching the primary goals of the knowledge management, which should among others also include efficient use of intellectual capital and increase of the organisation performance.

The knowledge management gives its attention to the critical questions of the organizational adaptation, survival and competency vis-a-vis to more and more discontinuing changes of the environment. It includes especially the administrative processes striving for synergistic combination of data and capacity for processing of information and information technologies and creative and innovative potential of man. There isn't any equal sign between the knowledge management and informatics technologies. They are becoming to be only the tool for performance of the knowledge management.

The basic requirements, put upon the knowledge management are: awareness, accessibility, reachability, right timing, safety and open attitude.

The implementation of the system can be then divided into five steps:

- disorder of knowledge
- appreciation of the need for control of knowledge
- their mutual coordination
- creation of single activities for control of knowledge
- integrated system

In the practise it is necessary to go up to the full implementation, which is represented by the fifth step. It is necessary to take into account the needs of the concrete environment, where the system for control of knowledge should be introduced.

That means, that in the development of the knowledge management comes to a radical shift of the paradigm. At the present time we know how to characterized the creation of the paradigm of the company management, but we can see the development trends in the companies, which are using best practices and which are putting them in the usage. The

knowledge economics reflects the new economical thinking, based upon the conditions of the knowledge society.

The knowledge organisations not only accumulate the knowledge, but they also create it. Today has the knowledge really the potential to become one of the strategic resources for the companies. It can assure for the companies stable growth, performance and competitive advantage. Therefore the management of the knowledge in the companies is getting more and more importance and knowledge management and the connected activities are more and more used in the practise. People will always have decisive influence on the the final result of the introduction of the knowledge management in the companies. Their strengths and weaknesses, their level of motivation for practical use and application of the outputs, their willingness to share the knowledge.

Functioning Knowledge Society would be helpful for companies. There is a complicated answer to the question How to reach that the basic precondition for the concept of knowledge society would be the capacity of an individual to get oriented in the information sources, search there information with efficiency, interpret them and put them into context, perform creative processing and create from them the knowledge.

REFERENCES

- [1] Bureš, V. (2007) *Znalostní management a proces jeho zavádění: průvodce pro praxi. (Knowledge management and process of its introduction: guide for practice)*. 1st issue Prague: Grada, ISNB 978-80-247-1978-8
- [2] Drucker, P.F. *Postkapitalistická společnost : Post-capitalist Society (Orig.)*. Translated by Josef Vavrousek. 1st issue Prague : Management Press, 1993. 197 p. ISBN 80-85603-31-4.
- [3] Hansen, M., Nohria, N., Tierney, T.(1999) What Is Your Strategy for Managing Knowledge?. *Harvard Business Review*. March/April, p. 106-116.
- [4] Choi, B., Lee, H. (2002) Knowledge Management Strategy and its Link to Knowledge Creation Process. *Expert Systems with Applications*. vol. 23, p. 173-187.
- [5] Jordan, J., Jones, P. (1997) Assessing Your Company's Knowledge Management Style. *Long Range Planning*. vol. 30, no. 3, p. 392-398.
- [6] Mladkova, L.(2005) *Management Znalostí, Praha. (Management of knowledge, Prague)* ISBN 80-245-0878-8
- [7] Nonaka,I, Takeuchi,H. Takeuchi,H.(1995) *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation by Edition Description: New Edition*. 304pp . ISBN-13: 9780195092691
- [8] Keith S. (2002) *What is the Knowledge Economy? Knowledge Intensity and Distributed Knowledge Bases*, (Institute for New Technologies Discussion Paper 2002-6, The United Nations University.
- [9] Kuhn, T. S. (1997) *Structure of the scientific revolutions*. Prague: Oikoymenh. 208 p. ISBN 80-86005-54-2.
- [10] Nemecek, P, Kocmanova, A. (2008).*The Knowledge Management and the Human Capital*. In. *First International Science Conference "Knowledge Society"*. Sozopol,Bulgaria, September 3-5.,2008.str.16-22.ISSN 1313-4787.

- [11] Trunecek, J. (2003) *Knowledge company in knowledge society*. 1st issue Prague: Professional Publishing, ISBN 80-86419-35-5
- [12] Vymětal, J., Diačková, A., Váchová, M. (2005) *Informační a znalostní management v praxi. (Information and knowledge management in the practise)* Prague : LexisNexis CZ - Orac, 2005, 399 p. ISBN 80-86920-01-1.
- [13] Zidkova, P. (2003). *Knowledge management : role for professionals in informatics*. Prague, 2003. 128 p. Doctoral work (PhDr.). Univerzita Karlova v Praze,
- [14] Brinkley, I. *Defining the Knowledge Economy*, The Work Foundation, London (Accessed 24 January 2007) [online].[cit.2009-8-4]. Available from www: <http://www.theworkfoundation.com/assets/docs/publications/65_defining.Pdf>
- [15] Bures, V. Cech, P. *Knowledge Management at the Organisational Level*. [online].[cit.2009-8-4]. Available from [www: <http://fim.uhk.cz/znalosti/documents/Tutorial1.pdf>](http://fim.uhk.cz/znalosti/documents/Tutorial1.pdf).
- [16] Bures, V. *Methods for introduction of the knowledge management*. [online].[cit.2009-8-4]. Available from [www: <http://lide.uhk.cz/home/fim/ucitel/buresv11/www/publications/KM-Beat-It.pdf>](http://lide.uhk.cz/home/fim/ucitel/buresv11/www/publications/KM-Beat-It.pdf).
- [17] Bures, V. *Classification of the knowledge, knowledge strategy and styles of the knowledge management*. [online].[cit.2009-8-4]. Available from [www: <http://lide.uhk.cz/home/fim/ucitel/buresv11/www/publications/ClassificationStrategyStyles.pdf>](http://lide.uhk.cz/home/fim/ucitel/buresv11/www/publications/ClassificationStrategyStyles.pdf).
- [18] Krizova, K. *Knowledge management*. [online].[cit.2007-4-17]. Available from: <<http://www.ceskacesta.cz/stranka.py?ids=STR000000000000177>>.
- [19] Katolický, A. *Knowledge Management. volny.cz* [online].[cit.2009-8-4]. Available from [www: <http://www.volny.cz/akatolicky/KM_celek1.htm>](http://www.volny.cz/akatolicky/KM_celek1.htm).
- [20] Trunecek, J. *New theory of economics and of management. Fikce nebo realita (Fiction or reality)*[online].[cit.2009-8-4]. Available from [www: http://docs.google.com/gview?a=v&q=cache:uKgG Od7RBBIJ:semafor.euke.sk/zbornik2007/pdf/trunecek2.pdf](http://docs.google.com/gview?a=v&q=cache:uKgG Od7RBBIJ:semafor.euke.sk/zbornik2007/pdf/trunecek2.pdf)
- [21] KTD : Česká terminologická databáze knihovnictví a informační vědy (Czech terminology data base for librarianship and information science) (TDKIV) [online]. Prague : Národní knihovna České republiky (National library of the Czech Republic), 2003. Available at: <http://sigma.nkp.cz/cze/ktd>