

doc. ing. Martin Vološin, PhD¹

ing. Darina Vološinová, PhD²

College of International Business ISM Slovakia
Prešov, Slovak Republic

Perspectives of Management in the Time of Knowledge Economy and Information Society³

INTRODUCTION

The knowledge society or post-industrial society represents the next phase of industrial society but it differs from it in various ways. It represents ongoing universal transformation of all productive forces, factors and conditions of the society in their total structure, brings deep changes in the economic and social processes and changes the position of people in the society. Science and its wide-spectral application, in symbiosis with the development of comprehensive human creative forces, has become the decisive factor of the knowledge society.

In this phase of development of society the economy keeps its dominant position but it registers essential changes by its transforming to the knowledge economy. Knowledge and information in this new economy play the decisive role. At the same time, the importance of new technologies and knowledge workers is continuously growing. Knowledge workers are not only the scientists, workers in research, development and education but also managers and top highly-qualified workers of all sectors. It is especially the managerial work which is highly responsible for the success of firm in the competitive environment of knowledge economy.

The transition to the knowledge economy is connected with a number of important changes in the firms' management. Our contribution focuses on factors influencing management and selected specific issues of enterprises management in the era of the knowledge economy.

¹ Adres korespondencyjny: College of International Business ISM Slovakia, Prešov, Slovak Republic, e-mail: volosin@ismpo.sk.

² Adres korespondencyjny: College of International Business ISM Slovakia, Prešov, Slovak Republic, e-mail: volosin@ismpo.sk.

³ This paper is a part of the research project of the Grant Agency: Washington DC Corporation / USA Reg. No. WDCC-USA/02.11/02 "Business in the New Economic and Social Conditions".

FACTORS AND VIEWS INFLUENCING THE MANAGEMENT IN KNOWLEDGE ECONOMY

In 1995 I. Nonaka in Japan created the SECI model explaining the process of knowledge creation in organizations. The model is connected with the concept of knowledge life-cycle. SECI model encompasses two forms of knowledge (tacit and explicit), dynamic interaction (knowledge transfer) and four processes of knowledge creation (socialization, externalization, combination, and internationalization).

According to Nonaka the organizations create knowledge through the interactions between tacit and explicit knowledge (knowledge conversion), where knowledge is increasing in a quantitative and qualitative sense also.

The knowledge management (KM) is from this point of view a crucial part of company management. It represents combination of knowledge and experience from many scientific areas and disciplines. Beckman is persuaded that there are six different angles of viewing the knowledge management:

1. Conceptual view
2. Process view
3. Technological view
4. Organizational view
5. Implementation view
6. Managerial view.

The conceptual view on knowledge management includes mainly the problems connected with knowledge definitions, knowledge management definition and knowledge principles, as well as the overall frame for knowledge management. This perspective is important mainly for exploration of theoretical aspect of knowledge management.

Process view on knowledge management is concentrating on analyzing the different stages of the knowledge process. There are many models of this kind but we can divide the whole process to four basic stages:

1. Development of new knowledge;
2. Securing and provision of new and existing knowledge;
3. Knowledge distribution;
4. Combination and assembling of available knowledge.

The technological aspect of knowledge management deals with information and communication technologies which can be used for:

- conversion of individual knowledge to broadly accessible knowledge,
- conversion of data to information and knowledge,
- conversion of text information to knowledge,
- connection of people and knowledge,
- connection of people mutually,
- connection of different types of knowledge.

The organizational aspect of knowledge management or company management in the knowledge economy is oriented to the solution of the problem of how to manage the knowledge company, how to create the appropriate (formal and informal) organizational structure, how to divide tasks, responsibility and assure organizational learning. The most known approaches to knowledge company organization according to Davenport are:

1. Centers of expertise
2. Projects of knowledge management such as: knowledge warehouses, knowledge transfer projects, projects of knowledge evaluation, projects of knowledge infrastructure
3. Communities of common experience
4. Communities of common interest.

Implementation view on knowledge management includes different methods and approaches ensuring the successful implementation of a knowledge management system such as:

- critical factors of success
- expected problems of KM implementation
- expected gains and profits
- implementation of ICT infrastructure
- strategy of company knowledge management.

MEASURING THE DEGREE OF KNOWLEDGE ECONOMY DEVELOPMENT

In the course of transition to knowledge economy we can observe qualitative shifts in the development of the determinants of competitiveness. In the 80s it was the *working better strategy* with an emphasis on quality and reengineering. The *working cheaper strategy* in the 90s tried to emphasize the effects of outsourcing. Since 2000, big companies oriented their strategies in particular on taking advantage of off-shoring while paying foremost attention to simplifying the conditions for investment and business, complete the technological and logistical infrastructure, sound and sophisticated financial system and the diversity of production activities. A key priority and the real engine of competitiveness in the future will be science, innovation, technology, education and entrepreneurship. Science supported by education has become the core of sustainable competitiveness. At the same time, the complexity of the adaptation processes is linked not only to cost reduction, innovative content and quality but also increasingly on time or precisely to the time advance, and the delay in their implementation.

Measuring of the development of the knowledge economy represents an important aspect of the transition. Indicators of the degree of knowledge process development can be divided into two basic groups:

- indicators of basic characteristics and features of the knowledge society,

- indicators designed to measure the economic performance and output.

The first group of indicators can include:

1. Investment in information and communication technologies and indicators of the use of ICT
2. Indicators characterizing human resources and education
3. Indicators characterizing research and development
4. Business Environment Indicators and promoting innovation
5. Structural and organizational changes in the economy.

The second group of indicators is characterized by the following aspects:

1. Economic growth and productivity of new industries and the whole economy
2. Social impact of the new economy
3. Environmental impacts of the new economy.

From the point of view of these indicators, Slovakia belongs to medium-developed countries. The extent of this contribution does not permit a detailed analysis but it can be said that Slovakia in many ways lags behind the developed countries, or even its partners in the V4. Although we have the euro and a relatively high rate of economic growth (the second highest after Poland), we have the highest unemployment rate and a deteriorating business environment. Slovak Republic also lags behind in the promotion of science and research. Overall, Slovakia spends on the science and research about 0,82% of GDP (public and private funding). Also the target for 2020 is not very ambitious: 1,2% of the GDP. The European Union strategy includes for 2020 the goal of raising the total spending on research and development to 3% of GDP. The EU is currently spending about two percent of GDP on research and development (Japan 2,9%, U.S. 2,8%).

Analyses also point out the fact that Slovakia is underused framework programs of the European Union. Development of the knowledge economy is hampered by the problem of application of research results in Slovak companies, which is related to the low productivity of applied research and the relatively small number of companies focused on high technologies. The arrival of foreign investors does not solve the problem because they come mainly for the cheap labor and prefer the development of *assembling economy*, and not the knowledge economy. Another problem is the continuing stagnation of the education system that fails to meet the long-term need of the economy for qualified workers in the desired structure and quality. It is a closed circle because the low salaries cause qualified young people to go abroad.

Their absence is then reflected in a slowdown of economic transformation and the low cost of labor. The vision of Slovakia as a small, open and highly foreign capital controlled economy is contingent on the factual and timely encompassment of the adaptation process in the environment of global relocation movements, enabling it through the generation and exploitation of dynamic comparative advantages based mainly on the factors of the knowledge economy, to reproduce and cultivate a long-term sustainable global competitiveness.

MANAGERIAL VIEW ON THE KNOWLEDGE ECONOMY

Managerial view to the whole area of knowledge use and creation is concentrated on the procedures leading to the knowledge management systems implementation into practice [Vološin, 2014]. These procedures are focused on:

- developing appropriate management methods,
- measuring and evaluation of intellectual capital,
- salaries, bonuses and motivation systems,
- building of appropriate corporate culture.

The positive effects of company knowledge management can be divided into two groups:

- a) Results having direct relation to knowledge management, connected with the realization of knowledge processes, the use of certain technologies, etc.
- b) Effects connected with the basic business goals of the company – increasing company value, profitability, stability and market position.

These effects represent the complex result of improved knowledge sharing and cooperation of company employees, expansion of best practices within the framework of the organization, better learning and faster integration of newcomers, elimination of the know-how loss, increasing the quality of projects and innovations, improvement of company external relations, readiness to react to unexpected situations and the ability to manage acute crisis situations.

FAIR PROCESS AND MANAGEMENT IN THE KNOWLEDGE SOCIETY

Management in the knowledge society must be completely different in comparison to previous stage of society development. Specifically the necessity for much greater justice, openness and fairness in the treatment of employees. The subject of justice has preoccupied writers and philosophers throughout the ages but the systematic study of fair process emerged only in the mid-1970s when two social scientists, Thibaut and Walker, combined their interest in the psychology of justice with the study of process. Focusing their attention on legal settings, they sought to understand what makes people trust a legal system so that they will comply with laws without being coerced into doing so. Their research established that people care as much about the fairness of the process through which an outcome is produced as they do about the outcome itself. Subsequent researchers such as Tyler and Lind demonstrated the power of fair process across diverse cultures and social settings. Fair process responds to a basic human need. All of us, whatsoever our role in a company, want to be valued as human beings and not as “personnel” or “human assets”. We want others to respect our intelligence. We want our ideas to be taken seriously and we want to understand the rationale behind specific decisions. People are sensitive to the signals conveyed through a com-

pany's decision making processes. Such processes can reveal a company's willingness to trust people and seek their ideas—or they can signal the opposite.

Principles of the fair process: In all the diverse management contexts studied, researchers have asked people to identify the bedrock elements of fair process. And whether they were working with senior executives or shop floor employees, the same three mutually reinforcing principles consistently emerged: *engagement*, *explanation*, and *expectation clarity*.

Engagement means involving individuals in the decisions that affect them by asking for their input and allowing them to contest the merits of one another's ideas and assumptions. Engagement communicates management's respect for individuals and their ideas. Encouraging refutation sharpens everyone's thinking and builds collective wisdom. Engagement results in better decisions made by management and greater commitment from all involved in executing those decisions. Explanation means that everyone involved and affected should understand why final decisions are made as they are. An explanation of the thinking that underlies decisions makes people confident that managers have considered their opinions and have made those decisions impartially in the overall interests of the company. An explanation allows employees to trust managers' intentions even if their own ideas have been rejected. It also serves as a powerful feedback loop that enhances learning.

Expectation clarity requires that once a decision is made, managers state clearly the new rules of the game. Although the expectations may be demanding, employees should know up front by what standards they will be judged and the penalties for failure. To achieve fair process, it matters less what the new rules and policies are and more that they are clearly understood. When people clearly understand what is expected of them, political jockeying and favoritism are minimized and they can focus on the job at hand. Notice that fair process is not decision by consensus. Fair process does not set out to achieve harmony or to win people's support through compromises that accommodate every individual's opinions, needs, or interests. While fair process gives every idea a chance, the merit of the ideas – and not consensus – is what drives the decision making.

Fair process in the knowledge economy may sound like a soft issue but understanding its value is crucial for managers trying to adapt their companies to the demands of the knowledge-based economy. Unlike the traditional factors of production – land, labor, and capital – knowledge is a resource locked in the human mind. Creating and sharing knowledge are intangible activities that can neither be supervised nor forced out of people. They happen only when people cooperate voluntarily. As the Nobel laureate economist Friedrich Hayek has argued: "Practically every individual possesses unique information that can be put to use only with his active cooperation."

Getting that cooperation may well turn out to be one of the key managerial issues of the next few decades. Voluntary cooperation was not what Frederick

Taylor had in mind when he began to develop an arsenal of tools to promote efficiency by controlling individuals' behavior and compelling employees to comply with management dictates. Traditional management science, which is rooted in Taylor's time-and-motion studies, encouraged a managerial preoccupation with allocating resources, creating economic incentives and rewards, monitoring and measuring performance, and manipulating organizational structures to set lines of authority.

CONCLUSION

The paper was focused on selected problems of corporate governance and management in the era of transition to a knowledge economy. Its first part discusses basic factors of economic transformation and restructuring of the economy on the way to modern post-industrial society with a focus on increasing the competitiveness of Slovakia at the current stage of development of the economy. The second part of the article is dedicated to measuring the degree of knowledge economy development and problems of knowledge management and management of modern companies in the knowledge economy.

According to Kim and Mauborgne conventional management approaches and levers still have their role to play in the knowledge economy but they have little to do with encouraging active cooperation of highly qualified workers. Instead, they operate in the realm of outcome fairness or what social scientists call distributive justice where people get the compensation (or the resources, or the place in the organizational hierarchy) they deserve and they feel satisfied with that outcome. They will reciprocate by fulfilling to the letter their obligation to the company. The psychology of fair process, or procedural justice, is quite different. Fair process builds trust and commitment, trust and commitment produce voluntary cooperation, and voluntary cooperation drives performance, leading people to go beyond the call of duty by sharing their knowledge and applying their creativity. We think that this point is crucial for the success of the company management in knowledge-based economy.

BIBLIOGRAPHY

- Chan Kim W., Mauborgne R., 2013, *Fair Process – Managing in the Knowledge Economy*, „Harvard Business Review”, January.
- Helping Firms Grow – European Competitiveness Report*. European Union, 2014, ISBN 978-92-79-38767-8. Accessible from: http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/index_en.htm.

Nemcová E., Silanič P., 2013, *Indicators of the knowledge economy and the convergence between the European Union Member States*, Prognostické práce, Vol. 5, No. 1, Bratislava : Prognostic Institute SAV.

Program Declaration of Slovak Government 2012–2016, May 2012, Bratislava, <http://www.vlada.gov.sk/programove-vyhlasenie-vlady-sr-na-roky-2012-2016/?pg=2>.

Schleicher A., 2006, *The economics of knowledge: Why education is key for Europe's success*. Brussels: The Lisbon Council.

Šíkula M. et al., 2010, *Strategy of Development of the Slovak Society*. Bratislava: Economic Institute, Slovak Academy of Science (SAV).

Vološin M., 2014, *Determinants of the Knowledge Society and the Policy of Employment*. In: Transactions of the Universities of Košice. TU Košice – ISM Slovakia Prešov.

Summary

The paper is focused on current issues of corporate governance and management in the era of transition to a knowledge economy and information society. The first part discusses basic factors of economic transformation and restructuring of the economy on the way to a modern post-industrial society. The second part of the article is dedicated to measuring the degree of knowledge economy development and problems of management of economic subjects, with a focus on increasing the competitiveness of Slovakia at the current stage of globalization and transformation of the economy.

Keywords: knowledge economy, information society, structural changes, management, corporate governance

Perspektywy zarządzania w czasach gospodarki opartej na wiedzy i społeczeństwa informacyjnego

Streszczenie

Artykuł koncentruje się na bieżących kwestiach zarządzania korporacyjnego w dobie przejścia do gospodarki wiedzy i społeczeństwa informacyjnego. Pierwsza część omawia podstawowe czynniki transformacji gospodarczej i restrukturyzacji gospodarki w drodze do nowoczesnego społeczeństwa postindustrialnego. Druga część artykułu poświęcona jest pomiarowi stopnia rozwoju gospodarki opartej na wiedzy i problemom zarządzania podmiotami gospodarczymi, ze szczególnym naciskiem na zwiększenie konkurencyjności Słowacji na obecnym etapie globalizacji i transformacji gospodarki.

Słowa kluczowe: Gospodarka oparta na wiedzy, społeczeństwo informacyjne, zmiany strukturalne, zarządzanie, nadzór korporacyjny

JEL: D80, G30, L16