KNOWLEDGE MANAGEMENT FORMULATES A NEW SYSTEM OF WEALTH CREATION

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Abstract

The knowledge economy means new trend of economic development of society, in which knowledge has become the most important and productive source of economic development. Knowledge has become the decisive factor of efficiency and prosperity creation. This transition of economy started in the 1970’s and nowadays it is being strongly intensive. The process of transition can be implemented successfully only in knowledge companies, that not only search and employ knowledge in their operations, but also they create it and use as a competitive advantage. More sophisticated flexible technologies are applied in individualized production and consumption. The specialized sales nets distribute product to customers on growing domestic market. This has impact on whole marketing and mass-media communication that is directed towards smaller segments. The personalized production and highly specified requirements of market set the need for perfect system integration securing fluent flow of information not only within company, but also between supply and purchase systems. To perform such system integration, it is inevitable to build information infrastructure in companies. It connects in itself partial computer systems, databases, information technologies, and interconnection of whole nets. All mentioned transactions accelerate the speed of operations and activities. Competition is transformed to hyper-competition and the most crucial variable is time.

Keywords: knowledge economy, knowledge, knowledge management, modeling, learning organization.

JEL Classification: D23, M21.

Introduction

Since the beginning of the 1990’s, the changes of such importance as the industrial revolution have been recorded in leading world economies. Present authors examine new developments in the area (Carnicky&Mesaros 2006, Mladkova 2005, Nickols 2003) and they argue that changes are connected with the application and increasing use of new products, IT and communication technology, which influence on reproductive process is of such importance that innovations and knowledge have become the new unique production factors besides labour, land and capital. These new production factors condition transition of economy to a new quality that is known as knowledge or new economy. The new economy is marked as a society based on knowledge or information society in which technological changes and the influence of knowledge determine and modify economic development. The technological changes are so fundamental, that they are directly connected with the need for mastering new knowledge and development of new skills of the staff, as the new products arising from this economy are the result of great volume of accumulated knowledge. Then cognition and education acquire major value and quality in society and form a new system of wealth creation. Their exploitation reduces all other inputs involved in wealth generation. The fact, that they are an inexhaustible source, has got high importance.

The aim of paper: the main objective of this paper is to define the role and nature of knowledge in society and to verify the theoretical definition of the problem in terms of a business practice model in terms of implementation of knowledge management.

The subject of study – primary marketing research (via face-to-face method) based on sample of 93 businesses in the Slovak Republic. The aim of realized marketing research has been to find out and assess current state of knowledge management in small and middle enterprises in Slovakia.

Research methods – such as analysis, synthesis, comparison, generalization, questionnaire, statistic methods (SPSS programme), algorithm construction, and summarising of results have been applied.

Contribution – the paper is focused on creating of knowledge management implementation into business practice.

Knowledge as Key Factor of Economic Growth

The base of knowledge economy is the knowledge company that employs knowledge in production of goods and services. The knowledge firm consciously and purposively uses knowledge. Knowledge in disposal of customer oriented company must overcome knowledge of competitors and customers.
Galuppe (2001) states that knowledge is information, in which appropriate interpretation and experience plays an important role.

The authors Alavi and Cook (2001) declare that defining the notion – knowledge, we should consistently differentiate the terms data, information and knowledge. Data represents the so-called raw facts, information elaborated facts and knowledge is verified information. Knowledge is accumulated information in the minds of individuals. It concerns personal information (which can be, but need not always to be new, unique, profitable or accurate) about the facts, procedures, conceptions, explanations, ideas, suggestions and evaluation of conclusions. These authors stress the iconoclastic argument related to knowledge creation. This argument is based on statement that knowledge arises from cognitive processing of information, initiated by new stimuli, and at the same time they define knowledge from these aspects:

1. **state of mind** – this aspect understands knowledge as a result of individual study or personal study and acquiring experience. It concerns compendium of all the person has learned, invented and really perceived. This approach aims at exploitation of individual knowledge of a person in favour of an organization.

2. **object** – it is something that can be obtained, stored, manipulated, submitted further, etc. This aspect describes knowledge as materialized things manifested in corporate products offered to the market.

3. **process** – understanding of knowledge as a process focuses on advantages enabling us to work with knowledge in organization. This aspect concerns continual possibility of application of expert knowledge in different areas.

4. **conditions of access to information** – are related to corporate environment, which creates prerequisites for access of individuals to acquiring information and its transformation to knowledge.

5. **capability, competence with potential to influence future performance** – this aspect is based on view, that knowledge fundamentally influences future development of an organization. It stresses the aspect of selection and sorting of information as not every information can secure equal profitability. We speak about the capability based on certain knowledge.

Sveiby (2001) trying to answer the question what knowledge is, states that knowledge has got its specific features opposite to other business sources (material and financial). He mentions that knowledge is not a thing that can be directed. Knowledge oriented managers do not rule knowledge, they direct only environment, in which this knowledge can be found.

Zeleny (2005) speaks about knowledge as key abilities to produce goods and services. This type of knowledge must be create and continually renewed, improved and managed. Knowledge (capability and intellect) is the most important form of capital – money, technology, buildings and land – are subordinated to knowledge capital, follow it and depend on it crucially. Knowledge in the meaning of capabilities and intellect is defined as purposeful coordination of activity. I know, because I can coordinate my activities in such a way, that the result or product of my effort is successfully accepted and evaluated in the market. Market assessment brings the real incentive to create knowledge. If we distinguish between notions data and information, we can better understand the meaning of notion knowledge itself, which represents all what an individual knows after acquiring data and information and their integration into interrelations. If we own data that are unidentified for us, they lose their meaning for us. But, if they have the meaning for us, they have become information. If this information is understood accurately, it has become knowledge. Knowledge owned by us, is in relation with origin data, but is much deeper and enables us to make certain decisions. It should be mentioned that knowledge is not information. Cognition is not only generation of information. Knowledge is action. The riches countries are those that rely not only facilities, labour and mineral sources, but on knowledge and capabilities in enterprising. Many companies are rich in information, but poor in knowledge. To have too much information is bad, but not to have enough knowledge is even worse.

Knowledge like other objects can be classified based on different criteria. Nowadays, the majority of authors agrees on and uses the basic typology of tacit and explicit knowledge. Tacit knowledge (in some writings marked as quit knowledge, hidden knowledge or inexpressible knowledge) is formed by mutual interaction of explicit knowledge and experience, intuition, conception and mental models. This type of knowledge has subjective character, is related to personality of individual and it is very difficult to explain and to transmit. The writers Alavi and Leidner (2001) point out the internal structure of tacit knowledge, which has been neglected by many authors, though this structure represent the important part of knowledge typology itself. They divided tacit knowledge into two internal dimensions – technical and cognitive. Technical dimension contains hardly recorded and codified knowledge known as know-how. It deals with personal attitudes, intuition, feelings, forecasting, inspiration, etc. The second dimension – cognitive, formulates our perception of the world and comprises our opinions, conceptions, ideals, values and emotions.
Very frequently, the person himself, who carries them, does not have to know about their existence. Explicit knowledge can be expressed by formal language, it means, that we can formalize it, carry, place, and store it. We can express it by means of data. This form of knowledge can be formulated in company information system, databases, methodological processes, documents, etc.

The successful companies are such organizations, that continually produce new knowledge, spread it within the whole company, exploit synergetic effects and at least, they quickly change it into new products and services.

While knowledge, resp. intellectual capital represents static, resp. potential set of organization assets, the knowledge management comprises dynamic element in itself, i.e. the capability to generate and add value to original source. This internal capability of organization, non – imitated by its own way, represents the capability of organization to create environment permanently supporting acquisition, creation, sharing and exploitation of knowledge.

The main goal of knowledge management is maximum exploitation of intellectual capital in organization and knowledge of its co-workers for the sake of increasing efficiency. The management of knowledge this way contributes to higher level of staff education and to better and more efficient employment of their experience.

OECD (2005) definition states that knowledge management covers any intention and systematic process or practice in acquiring recording, sharing, creating and use of productive knowledge occurring everywhere with the aim to support learning and efficiency of organization.

The system of knowledge management offers the framework, by which organization can view all its processes as knowledge processes. The main tasks of knowledge management can be determined by this way (Mesaros & Carnicky, 2006);

1 **Process of new knowledge creation** – the businesses are prosperous on condition thei are able to develop and produce new knowledge in different areas. The development of this knowledge is based on new ideas, creativity, expertise and experience.

2 **Process of securing and making knowledge accessible** – knowledge in company must be stored in the right place (database) and accessible to the right persons in the right time and form (it concerns mostly explicit knowledge).

3 **Process of offering and distributing knowledge** – organizational knowledge management must assure that knowledge has been distributed and transmitted to those employees, who are able to exploit it in some way when controlling higher efficiency of work and business targets.

4 **The process of combining accessible knowledge** – a lot of new and useful information arises by combining accessible knowledge in a company and the synergetic effect can occur from such activities.

Efficient knowledge management should secure that knowledge would not only be generated and stored in database, but also rationally used. The prerequisite of knowledge exploitation in a firm is its constant spreading and mediation to the right persons in appropriate measure and proper time.

**Model of Knowledge Management Implementation in Business Practice**

Based on current results and experience of business practice and primary marketing research performed on sample of 93 businesses in Slovakia and confronted with theoretical conclusions of numerous theoretical approaches (Nonaka 1995, Takeuchi 1995, Davenport 2000, Senge 2007, Alavi 2001, Leidner 2001, Galuppe 2001, Lesser 1999, Leakage 2004, Nickols 2003, Razouk 2009), we introduce the proposal of knowledge management implementation model by which businesses can implement knowledge management into their practice (Figure 1.). The model comprises four basic phases;

1 **Phase – the analysis of environment**

In the first phase, the company identifies and analyzes external and internal market of knowledge and factors influencing development of knowledge in a company. Internal market of knowledge represents the complex knowledge inside the company. To perform it, organization should answer the following questions;

- Do we as an organization dispose needed amount and quality of internal knowledge?
- Does the organization invest into development of human capital?
- Where is knowledge located in a company and what are its flows?
- What is the organization attitude towards talented employees?
- Is the knowledge development a part of corporate strategy?
- What are the strengths of our staff?
- What is the level of comprehension of relation between knowledge and customers?
Is company interested increasing productivity of staff?

The analysis of external knowledge market represents searching the development trends in external market influencing knowledge development in a company. It concerns mainly pursuing development of labour market, quality of offered work, global differentiation of certain groups of population, condition of willingness to accept work, etc. The analysis of competition in relation to knowledge management is important within the frame of external knowledge market. To identify competition analysis, the following questions can help:

- What knowledge does the competition have in disposal?
- What is the way of searching and maintaining talented workers?
- What level of knowledge management does it have in disposal?
- What are the competitors` strengths in the process of knowledge advancement?

SWOT analysis oriented on knowledge management has been considered to become starting point in the frame of environment analysis, influencing the subsequent phases of model of knowledge management implementation.

2 Phase – determining responsibility for the area of knowledge management

This phase is characterised by determining of a person or persons responsible for performance of knowledge management. The designation of responsibility can be performed on the individual level or department level and their mutual interconnection and cooperation need not be excluded. On individual level, it can concern the owner of an organization on there is a need to create new position of a knowledge manager. In small and middle enterprises, it would be more advantageous to set responsibility for knowledge management on the base of individuals, though we do not exclude the department base. The existence of knowledge management department does not release appointing of knowledge manager of the given department or without it. The owner of an organization can also supervise the development of knowledge.

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1 PHASE OF MODEL – ANALYSIS OF ENVIRONMENT

internal knowledge market

\[\xrightarrow{SWOT\ analysis\ of\ knowledge\ management}\]

external knowledge market

2. PHASE – RESPONSIBILITY FOR KNOWLEDGE MANAGEMENT

personal base

owner of the company

knowledge manager

department base

human resources department

department of KM

3 PHASE – PREPARATION AND IMPLEMENTATION OF KS

1 determining of knowledge management goals
2 identification and differentiation of corporate knowledge
3 analysis of influencing factors in relation to knowledge
1.,2., 3. phases – initial phases of knowledge strategy
4 audit of intellectual capital
5 analysis of knowledge creation tools
6 proposal of the suitable knowledge creation tool
4.,5., 6. phases – core of knowledge strategy
7. implementation of knowledge strategy

implementation phase

4. PHASE – MONITORING OF EFFECTS OF KNOWLEDGE STRATEGY

- Fulfilment of determined goals of knowledge management
- Change in development of knowledge management indicator system
- Influence of knowledge management on other corporate activities

Was the knowledge management successful?

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Figure 1. Model of knowledge management implementation
3 Phase – preparation, creation and implementation of knowledge strategy

This phase is defined by seven important steps:

1. Characteristics and identification of knowledge management goals
2. Identification and differentiation of corporate knowledge
3. Analysis of influencing factors in relation to knowledge
4. Intellectual capital audit
5. Analysis of knowledge creation tools
6. Proposal of suitable knowledge creation tool
7. Implementation of knowledge strategy

The first three steps can be marked as starting phase of knowledge strategy, the fourth, the fifth, and the sixth steps are considered to be the core of knowledge strategy and the seventh step represents implementation of knowledge strategy. It is important to stress the fact within the third phase that knowledge strategy itself should be in concordance with the thorough company targets and corporate strategy.

The first step of knowledge strategy creation is setting the goals of knowledge management. Exactness of setting goals influences the final result of knowledge management implementation. The goals of knowledge management are usually for example increase in the level of self-study of workers, improvement of customer relations, increase in work morale, etc. The second step of creation of knowledge strategy should deal with setting individual kinds of knowledge and the measure of their exploitation in a company. The company should choose what type of knowledge its strategy will be aimed at, whether it is tacit or explicit knowledge or combination of both types. We point out that both kinds of knowledge influence each other and have effects on corporate efficiency. We propose to analyze the so-called elements of organizational management such as organizational structure the level of formal and informal organization, the level of corporate culture, communication, team work and the state of adult education in the third step. Organizational elements have an impact on development and diffusion of knowledge in appropriate trend. Then (in the fourth step), we could create certain system of indicators offering us survey of the intellectual capital situation within the company. We emphasise that indicator system creation is individual and unique for every company. When creating system of indicators, the organization must reflect its current possibilities and conditions with regard to knowledge management. We can present these indicators as an example:

- Fluctuation of employees
- Costs on education
- Average age of employees
- Level of non-financial awards
- Customer analysis (sales, share of bog customers, their satisfaction)
- State of employee education, etc.

Following appropriate choice of indicator system, there should be the next step related to the selection of suitable tool for the development of particular knowledge. When it concerns explicit knowledge, we can speak about the use of top information technology, intranet, groupware technology, etc. We can employ coaching, story telling, mentoring, communities, etc. as tacit knowledge. Organizations can focus on implementation of several tools supporting knowledge development rather than one tool.

We implement appropriately determined tools supporting knowledge development corresponding to timetable set by the management in the implementation phase. At the same time, it is inevitable to respect time limitation and costs on employment of tools in relation to knowledge.

4 Phase - monitoring of knowledge management implementation

Return of investments into the area of knowledge management is very difficult to predict. We could monitor the willingness of staff to learn before and after implementation of suitable tool, the level of improving access to information about key customers after implementation of database, etc. The comparison of determined indicators level with the level of indicator system after implementation of adequate tool for knowledge development is important too. In the final phase, we control the level of fulfilment of set goals and we try to answer the question whether the corporate knowledge strategy has been successful.

Realization of knowledge management according proposed model can help organization to identify the character and level of tacit and explicit knowledge and to define tools of their creation, and then, to implement it to business practice. This can positively influence the corporate results and to exploit its competitiveness in the market.
Conclusion

The knowledge management is considered to be the important factor in high developed countries, which influences achievement of exceptional competitiveness in the market. Human capital and its holders can significantly contribute to higher profitability and advanced competitiveness of enterprises in Slovakia. Knowledge and human capital have become assets for the company at the moment, when they manage to be implemented into knowledge system allowing sharing and exploitation of knowledge and capabilities.

One of the possibilities to advance human capital under conditions of business practice is the application of proposed model of knowledge management implementation, which precisely specifies and describes the basic steps from analysis of external and internal environments, via preparation, creation and implementation of knowledge strategy to further monitoring of this strategy. Application of all phases of proposed model can help companies to distinguish existence of certain knowledge, to find out and define the tools of its creation, and then, to implement it into practice. All that can positively influence achieved results of a company not only in relation to human resources management, but also to other operations of a company.

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