

THE STRATEGICAL IMPACT OF KNOWLEDGE MARKETS AND KNOWLEDGE MANAGEMENT FOR SMALL AND MEDIUM ENTERPRISES

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***Abstract:** According to the rapidly changing environment small and medium enterprises constantly need to adapt their strategies and activities. The transition from the industrial economy to knowledge-based economy results in the increasing of the volume of the available information. Therefore knowledge markets are needed and innovation centers have to be developed. An effective knowledge management system helps small and medium enterprises to overcome their disadvantages and compete with big corporations. The review of current developments in the field of knowledge markets is also made.*

***Keywords:** knowledge, knowledge markets, knowledge management system, knowledge-based economy, information society*

***ACM Keywords:** K.4.3 Organizational Impacts, D.0 GENERAL, H.4.3 Communications Applications*

Introduction

The globalization and technological developments increase dramatically the information available for the human society. The need of usage of automated tools for the extraction and processing of information appears. This information can be processed through Internet and characterizes with large variety and is unstructured. Therefore the knowledge contained in it can not be extracted and used for the increasing of the effectiveness of the functioning of the contemporary enterprises.

In the continuous and rapidly changing environment with high level of competition for the small and medium enterprises is more and more difficult to survive and grow. They do not have the large amount of financial funds like big corporations. By the usage of the knowledge hidden in the large volumes of freely available information these enterprises can receive high competitive power and successfully compete with big corporations in the virtual and real world market.

The small and medium enterprises can easily become transnational companies which operate on the global market. This is possible as a result of business virtualization, information technologies and telecommunications, Internet and etc.

To use the advantages from the changes in the global economy, small and medium enterprises have two possibilities:

1. to buy knowledge from the knowledge markets, or
2. become a knowledge centers and develop innovations.

Knowledge Markets

According to the fast development of Internet and Information and Telecommunication Technologies causes the appearance of new economy, called Internet or Knowledge Based Economy. A knowledge economy focused on the economy of the producing and management of knowledge. It is also the use of knowledge to produce economic benefits [1]. The term was suggested by Peter Drucker [2]. The Knowledge Economy is not currently absolutely established. Our society is in transition to an information society. And the industrial economy of the 20th century turns into the knowledge-based economy. It is changing the rules of business and competitiveness. The contemporary business competition is based on knowledge. It makes possible for small and starting enterprises to become global and transnational corporations operating with small investments in the world's global market.

The stages in development of the information society are well defined in [3]. The authors in [3] define the difference between information society and other levels of the human been growth by the domination of the information interests above all others. In the information society the payable information exchange and services dominate above all other market activities. As a result, the Information Market dominates over all other type of markets of the information society. The authors in [3] define the Knowledge Market as a special kind of

Information Markets. As the other markets the Knowledge Market is the organized aggregate of participants, which operates in the environment of common rules and principles [4]. The interactions between members of the knowledge markets are described in [5].

A real functioning global knowledge market currently does not exist. There are few attempts to develop such a market but the results are still far from the real knowledge market. Based on the analysis and review of the available scientific literature and information sources the following developments in this field are discovered:

- The theoretical basis of knowledge markets is established in [3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15]
- An attempt of establishing knowledge markets is made by BRINT [16, 17], The Knowledge Creating Company. It is currently the leading institution in the knowledge market. It is the world's virtual gateway to the largest pool of talented minds involved in contemporary business technology management and knowledge management research and practices across the USA and all other countries of the world.
- Other developments:
 - The World Bank [18] – Knowledge for Development Program. The Program provides policy advice on four Knowledge Economy pillars: economic and institutional regime, education, innovation, and Information and Communication Technologies (ICTs). It helps countries identify the challenges and opportunities they face in making the transition to the knowledge-based economy. The KAM consists of 81 structural and qualitative variables for 132 countries to measure their performance on the four Knowledge Economy (KE) pillars: Economic Incentive and Institutional Regime, Education, Innovation, and Information and Communication Technologies. Variables are normalized on a scale of zero to ten relative to other countries in the comparison group. The KAM also allows to derive country's overall Knowledge Economy Index (KEI) and Knowledge Index (KI).
 - The Kaieteur Institute For Knowledge Management [19] develops an e-Knowledge Markets Meta Portal [20].
 - In April 2006 the Work Foundation [21] announced the start of a major three-year, £1.5 million research programme into the nature of the knowledge economy - the biggest investigation of its kind anywhere in the world. The project aims to identify what the knowledge economy is, and how advanced nations can use knowledge and information to spearhead economic growth and competitiveness in the 21st century.

Knowledge Centers and Knowledge Management System

The transition from the industrial society to the information based society and the transition from the industrial economy to the knowledge-based one logically results in changes in the global business. New industries, new business relationships and new kinds of jobs will appear. To survive in such an environment small and medium enterprises need to have high adaptive capability. Such adaptivity they can receive from the knowledge about the trends and correct forecasts about the changes in the global economical, political and social development. Such knowledge can be established by effective knowledge management system.

Knowing the global business trends small and medium enterprises can become knowledge and innovation centers. Developing innovative products and services they will have a strong competitive position on the global market.

Innovations are deeply connected with the strategical management of the enterprises. Effective strategic management is based on knowledge and correct business predictions. Therefore a knowledge management system is needed. It handles with huge volumes of information collected from various sources and extracts the hidden knowledge. Knowledge management system combines the latest achievements in the field of information technologies and has a strategical impact over the business development.

The effective knowledge management system needs to have the following functionalities:

- A tool for extracting and processing the information from various internet sources. It needs to be realized as a multiagent system which unites the activities of big number of intelligent robots. They search the Internet space and extract and structure the available information according to specific rules.
- Data bases and knowledge bases.
- Tools for data analysis and knowledge extraction.
- Forecasting tools.

- Quering capabilities, including adhoc queries.

Conclusion

The small and medium enterprises can be competitible with big corporations by using an effective knowledge management system. Such a system helps them to overcome the missing financial funds needed for their adaptation in the constantly changing environment. Becoming a knowledge and innovation centers small and medium enterprises can dramatically increase their competitive power and their impact on the global market.

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