

## KNOWLEDGE IN THE FUNCTION OF ENTERPRISE MANAGEMENT

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### Abstract

Modern information and communication technology systems have accelerated processes of providing knowledge and enabled its organized utilization for the purposes of managing a firm. The quality of enterprise management has been significantly increased by the development of different techniques of organizational learning. Experiences so far have shown that the implementation of these techniques can help organizations in pursuing two types of organizational learning: adaptive and generative. While adaptive learning supports continuous improvement of existing knowledge organized management, generative learning supports the development of learning culture and the creation of general climate in organization that favours development of new knowledge and new models of thinking. This paper presents the results of empirical research on the experience acquired in the implementation of information for the purpose of improvements in organizational learning based on a sample of small and medium-sized enterprises in the counties of Eastern Slavonia.

JEL classification: D83, L53

**Key words:** sources of knowledge, knowledge management, organizational learning, adaptive and generative learning, learning culture, ABC method

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## INTRODUCTION

Achievements of modern technological development are being transferred from developed world to the countries of transition and put in the function of their economic development. Development of global economy demands even bigger managerial knowledge and capacity of entrepreneurs and big investments in implementation of new technologies and modernisation of production systems. Technological innovations make product's life cycles shorter while satisfying consumer's needs becomes even heavier task to entrepreneurs. Such a significant business changes have a huge impact on management system of the enterprise.

The purpose of this paper is to present the benefits of organised approach to knowledge acquisition and utilisation and in implementation of different technologies as learning tools in business organisations. The survey method was used for acquiring data, information, attitudes and opinions on subject of the research.

A total of 160 questionnaires were sent to the 25 best performing small and medium-sized enterprises (measured by total turnover and gross profit in 2008) in four counties of Eastern Slavonia: Osijek-Baranja, Vukovar-Sirmium, Požega-Slavonia and Slavonski Brod-Posavina. The research is based on 68 replied questionnaires (42,5% of total questionnaires sent). The size of surveyed enterprises (measured by number of employees) has ranged from only 2 to 387. 39,7% of enterprises in the sample were involved in service sector, 35,3% in manufacturing while 25% in trade. Regarding the legal form of organisation, researched sample has comprised 86% of private limited companies, 11% of public limited companies and 3% of craft businesses. 50% of respondents (each representing single enterprise) included in survey are department managers as well as firm managers in 47% of examined enterprises, while the remaining 3% did not declare their position within an enterprise.

## IMPORTANCE OF KNOWLEDGE FOR AN ENTERPRISE

Knowledge available to enterprises comprises their understanding of consumer's needs and business environment as well as knowledge, skills and experiences of their employees. The way enterprise acquires, distributes and utilises knowledge determines its capacity for successful development. Knowledge is not only important for huge companies, but it can and must be utilized even by the smallest entrepreneurs and craftsmen.

Understanding the role of knowledge in enterprise is of special importance for *growing enterprises*. In reference to that, entrepreneurs must, above all, understand the basic sources of knowledge available to the enterprise, best modes of information gathering and its utilisation and ways of creating a knowledge strategy for particular enterprise.

Knowledge utilisation within enterprise is not necessarily associated with creative process of thinking up the new products and services or their new method of sale. It is far much simpler and to the large degree already available in each enterprise. For instance, firm's managers already have certain understanding of products and services customers demand and of quantities they are willing to buy and to pay for. Each entrepreneur is challenged in finding an adequate way to make knowledge available and to exploit it effectively.

On a daily basis, enterprises use a certain forms of knowledge. As a prerequisite for establishing a business, it is necessary to conduct *market research* and define a need for firm's products and services. Entrepreneur will not start a business if he/she finds out there is no need for products/services he/she intends to sell. Entrepreneur can use acquired market knowledge in order to connect certain customers to specific types of products and service. Or, he/she can transfer knowledge to customers providing them directions for usage or consulting services.

Employees of firm have certain knowledge, experiences, training or, just simple, ways of doing things that enterprise uses as a resource. Having *personnel that has knowledge* can be of invaluable importance for gaining distinction among competitors. Manager's knowledge on what consumers want, as well as knowledge of employees, can be considered as knowledge base in enterprise. The right way of its utilisation can contribute to more effective enterprise management, reduction of business risk and effective usage of opportunities. All of this enables competitive knowledge advantage to enterprise.

## **BASIC SOURCES OF KNOWLEDGE**

Among many sources of knowledge available to enterprise, as the most important, we researched (Basic...: 2009): customer knowledge (needs of buyers and their opinions about the enterprise), attitudes of employees and suppliers (their impressions on performance of the enterprise), market knowledge (tracking records on developments within sector and acquiring knowledge on competitors' performance), business environment (developments in politics, economy, technology, society and

environment), professional associations and trade bodies (academic publications, government publications, reports from research bodies, business and technical magazines), business exhibitions and conferences (acquiring information and exchange of different knowledge for firms engaged in specific business sector), product research and development (information for creation of entirely new products), organisational memory (in order not to lose knowledge and experiences built up over the years of existence of the enterprise), Internet (knowledge from wide range of different fields that refers to general development in certain market, economy and technology).

**Table 1:** Importance of basic sources of knowledge in enterprise

	No. of respondents	Lowest score	Highest score	Arithmetic mean	Standard deviation
Employees	68	3	5	4,46	0,742
Market	68	2	5	4,32	0,800
Internet	68	1	5	4,15	0,966
Business environment	68	3	5	4,10	0,694
Suppliers	68	1	5	4,06	0,991
Customers	68	1	5	4,04	1,043
Organisational memory	67	2	5	3,96	0,928
Product research and development	67	1	5	3,45	1,271
Conferences	68	1	5	3,13	1,078
Professional associations	68	1	5	2,59	1,175
Business exhibitions	68	1	5	2,57	1,250

Source: calculations of the authors based on conducted research

Successful acquisition of knowledge and its effective utilisation requires, above all, personnel familiar with the whole business process. It is necessarily to create specific knowledge culture and to insure that employees recognise the importance of knowledge. The research also confirmed that employees are recognized as the most important source of knowledge in the enterprise (table 1).

### Knowledge culture

Changes toward building up a knowledge culture in enterprise could begin with entitlement of *knowledge manager*. It is a person responsible for monitoring the

ways at which enterprise provides, utilises and exchanges its knowledge. Wherever it is possible this person should be one of high rank managers. This way knowledge manager has a power to introduce any necessary key change and to emphasize the importance of knowledge for the enterprise. Practice shows that knowledge manager is often slighted, which is also confirmed by research results – only 22% of examined enterprises had person entitled for acquiring and exchange of knowledge.

It is needed to build such culture in enterprise in which knowledge has central value. The research shows that most entrepreneurs are aware of the importance of knowledge appreciation – 58% of surveyed enterprises agreed on having built up the culture in which knowledge has central value. One way for achieving this could be introduction of *financial and non financial incentives for personnel* that succeeds to bring new products and services to market or to suggest new ways of delivering better service to customer. Besides, protection of each *intellectual property* (author's right, designer's rights, and patents) enterprise posses should be ensured. Due to this, competitors will not be able to copy knowledge of the enterprise and extra profit could be gained through knowledge licensing. Also, there is a need to take measures for maintaining important knowledge within enterprise. *Employment policy* has an important role in this. For instance, personnel could be bind by confidentiality agreement, while employment contract could disable employees to leave or work for one of direct competitors. In spite of the fact that 58% of surveyed enterprises stated to have built up knowledge culture in the enterprise, the analyses of empirical results as shown in table 2 indicate a scarce utilization of described measures for establishing the knowledge culture.

**Table 2:** Establishment of knowledge culture in enterprise

	Are there any incentives for personnel in the enterprise	Is protection of intellectual property implemented	Is confidentiality agreement implemented	Is there limitation for employees to leave or work for competitors
YES	42,60%	26,50%	44,10%	33,80%
NO	57,40%	73,50%	55,90%	66,20%

Source: calculations of the authors based on conducted research

Management of the enterprise must find an effective ways of *distributing knowledge within the enterprise*. It is important to avoid situations where knowledge and skills are in possession of only one person. It is needed to consider the best ways of distributing new ideas and information among personnel. Usually, there are already

regular meetings where employees get brief directions and invitation to mutually exchange ideas and their best practice of doing business.

Special forms of *knowledge sharing* can be used, too. The organization must reward individuals for supplying information to others. “The workplace has become increasingly competitive, and many times, workers feel as though they would jeopardize their job security by sharing their tacit knowledge” (Anderson: s.a., 2). It is possible to organise innovation workshops or brainstorming sessions where freedom and initiative for thinking of improvements in enterprise is given to personnel. Also, *knowledge bank* with useful information and directions on how to perform important tasks could be formed. This knowledge bank could be written. But, for the purpose of easier access it would be better to use modern technology, such as *intranet*. It can be used for fast distribution of knowledge among personnel and as an initiative in giving new ideas or suggestions.

Table 3 shows the frequency of utilisation of the previously mentioned forms of knowledge development, distribution and sharing as ranked by respondents using 1 (not implemented at all) - 5 (fully implemented) scale. The analysis showed insufficient exploitation of available forms and methods.

**Table 3:** Frequency of utilisation of the forms of knowledge development, distribution and sharing

	No. of respondents	Lowest score	Highest score	Arithmetic mean	Standard deviation
Useful information and directions	68	1	5	3,50	0,985
How to perform important tasks	68	1	5	3,22	1,104
Knowledge bank as intranet	67	1	5	2,90	1,437
Brainstorming sessions	67	1	5	2,69	1,416
Written knowledge bank	68	1	5	2,19	1,149
Innovation workshops	68	1	5	2,07	1,124

Source: calculations of the authors based on conducted research

## KNOWLEDGE UTILIZATION

Knowledge is a source of power not only to managers of the firm but also to all employees having specific capacities and important skills. We list some important *outcomes of knowledge utilisation* included in the research (Exploiting...: 2009): improvement of goods and services that enterprise sales, as well as their selling

methods, increased customer satisfaction (better understanding of their requirements, through feedback from selling personnel), increased quality of suppliers (better awareness of management about what customers want), improved employees' effectiveness and increased working productivity, better recruitment and staffing policies (more effective utilisation of knowledge about customers' demands and adequate personnel to serve them), ability to sell knowledge of the personnel (advisory or consulting services).

Table 4 shows the most appreciated purposes of knowledge utilization as ranked by surveyed enterprises using 1 (unimportant) - 5 (very important) scale.

**Table 4:** Outcomes of knowledge utilisation in enterprise

	No. of respondents	Lowest score	Highest score	Arithmetic mean	Standard deviation
Increased customer satisfaction	68	1	5	4,46	0,762
Improvement of goods and services	68	3	5	4,41	0,696
Improved employees' effectiveness	68	3	5	4,38	0,670
Increased quality of suppliers	68	1	5	3,90	1,039
Ability to sell knowledge	68	1	5	3,88	1,030
Better recruitment and staffing policies	68	1	5	3,87	1,021

Source: calculations of the authors based on conducted research

Knowledge acquiring and management requires usage of an adequate technology. We mention the most known technology types for knowledge management (Using...: 2009): databases (for example, a database of customers), data warehouse (in case of larger number of business units within enterprise or online sale), data mining (data sorted to determine hidden patterns, for instance, the most popular products), reporting and querying tools (creation of reports and their interpretation, for instance, the share of total sales achieved per employee), business intelligence portals (websites that interconnect all sorts of potentially useful information), **Internet and search engines**, intranet (internal PC's network), extranet (connection of two or more intranets), customer relationship management (all forms of interaction of the enterprise with its customers), call-centre systems (servicing a large number of buyers if firm sells by telephone), website log-file analyses (helps enterprise to analyse frequency of customer's utilisation of website of the enter-



prise), systems to analyse and file (comprise customer letters, all types of suggestions, emails and call-centres responses).

As shown in table 5, respondents graded knowledge management technologies using 1 (not implemented at all) - 5 (fully implemented) scale. The surveyed enterprises stated higher percentage points (approximately 50%) in use of Internet and search engines as well as of databases and data warehouse.

**Table 5:** The technology types for knowledge management in enterprise

	No. of respondents	Lowest score	Highest score	Arithmetic mean	Standard deviation
Internet and search engines	63	2	5	4,30	0,796
Databases	66	1	5	3,71	1,333
Data warehouse	65	1	5	3,40	1,356
Reporting and querying tools	66	1	5	3,06	1,357
Business intelligence portals	65	1	5	2,97	1,287
Intranet	62	1	5	2,94	1,436
Data mining	65	1	5	2,88	1,431
Systems to analyse and file	64	1	5	2,53	1,380
Extranet	60	1	5	2,45	1,383
Website log-file analysis	64	1	5	2,39	1,399
Customer relationship management (CRM)	65	1	5	2,29	1,355
Call- centre systems	64	1	5	2,06	1,194

Source: calculations of the authors based on conducted research

## ORGANIZATIONAL LEARNING

There are many definitions of organisational learning that range from creation of new knowledge, through creation of knowledge system, to changes in organisational practice. It is also defined for different levels within organisation and it can be discussed in terms of learning hierarchy that ranges from individual to group levels and finally to the organisation in whole (Driver: 2001, 1-3). This paper defines organisational learning as creation of new knowledge that leads to changes in performance on individual and group level as well as on organisation as a whole.



Organisational learning can be defined for two very different types of learning: (1) gradual, routine and adaptive (flexible) and (2) radical, fractal and generative (creative) learning (Senge: 1990, 14). Both types of learning are discussed as critical for effective organisational performance. Based on this view, enterprises should be capable for adaptive learning, oriented to change management, as well as for creative learning, oriented to creativity that results from shared efforts of organisation's members. They should be capable in creation of new adaptive, as well as creative knowledge for changes in performance at individual, group and organisation level.

Organisational learning is considered to have become a critical instrument for sustainable organisational performance in today's continuously changing competitive environment and 60,3% of respondents in the research agreed on this statement. It has also become question of huge interest for practioneers in organisations who believe that becoming a learning organisation is a key to success of their enterprises.

Adaptive (flexible) learning has been researched at individual as well as at collective, organisational level. At individual level, adaptive learning refers to routine activities of problem solving where assumptions are accepted without their prior questioning and as such is more about utilisation of existing knowledge than about development of the new one. At organisational level, adaptive learning mostly relates to knowledge enrichment, its formalisation, exchange and utilisation that have already been developed earlier in the organisation. In fact, adaptive learning at level of an individual and of an organisation must deal with utilisation and management of existing knowledge.

When it comes to acquiring knowledge for better manager's preparation of decision making, different methods are used. For example, activity based costing method (so called ABC method), helps managers in preparing decision by making costs of each activity clearly visible so that non value added activities can be easily detected or that decisions on prices can be more precisely made due to information that are usually not so visible in other cost allocation systems. In fact, ABC is a knowledge management tool that can help organisation at its every level to better understand current financial reality and to better response to current financial requirements. Although the benefits of ABC methods are evident, the research results are fully disappointing since every forth enterprise (or only 25% of surveyed

enterprises) is familiar with this method while only 16,2% uses it for management of existing knowledge and the creation of the new one.

Today, there are different managerial tools for preparing decisions and for changing the way managers think about organisation and value creation. Such tools are suitable for encouragement of creative learning in organisation. ABC is not only used as a managerial tool for knowledge about costs, but as a process that gives an opportunity to individual and group decision makers to challenge their assumptions about allocation of resources and value creation within an enterprise (Driver: 2001, 8-9).

## CONCLUSION

The purpose of this paper is to examine the role of knowledge in enterprise and to point out the contributions of information and communication technology in creation of managerial tools that are in function of adaptive and creative learning in enterprise. Such technologies support adaptive learning in organisations helping the management of business information and improvement of total knowledge at all levels of the enterprise. Also, they encourage creative learning through the development of social climate and culture in which existing assumptions about organisational processes and performance can be questioned. Many scholars and managers agree that creative learning gives the best opportunities and represents the biggest hope for enterprises in 21<sup>st</sup> century.

Linking ideas within information–communication technology and organisational learning enables development of special tools for creation of new knowledge that leads to changes in performance at individual, group and organisation level. Changes in performance can be gradual with utilisation of more important business information for more effective decision making or radical with changes of strategically direction of business based on new understanding of way organisation creates value for its customers. The empirical research conducted on a sample of small and medium-sized enterprises in the counties of Eastern Slavonia shows that organisational learning is in its initial phase of development and that changes toward increased exploitation of team work and invention of even more effective forms of organisation of the enterprise are needed.

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