SURVEY OF POSSIBILITIES OF APPLYING THE MODEL OF KNOWLEDGE MANAGEMENT IN ENTERPRISES WITH REGARDS TO BOSNIA AND HERZEGOVINA MARKET

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SUMMARY

Detailed review of basic theoretical orientation of knowledge management is very significant and welcome, because in our literature has not yet been many of published researches on the issue above. Exactly that case studies that are done abroad and the concrete practice regarding the introduction of knowledge management and its effects on the particular company, can be very useful in understanding and adopting this subject matter that can also be applied in Bosnia and Herzegovina. In regards to universality, that is a spatial limitlessness of knowledge management, learning in the later stage of the introduction of knowledge management for Bosnian companies would mean a high growth of potential and the possibility of the emergence in international competition. The processes of globalization is incontinently coming to BiH, which means that companies here need to face competitors who are very successful because of rapidly adoption and practical use of every advanced concept, which leads to business success and strengthens their competitive position.

The survey aims to explore and identify the understanding and the possible introduction of the studied concept in selected Bosnian companies. The purpose of the research is that this gained theoretical knowledge and empirical experiences of companies that have already been successfully implemented in knowledge management, we use beneficially as possible in establishment and application of knowledge management in practice and further research.

Keywords: knowledge management, competitive advantage
INTRODUCTION

In today's dynamic and business surroundings, in highly competitive environment, there are more and more companies who are aware that knowledge is the key dimension that can mean a valuable competitive advantage for the company. That’s how every successful business becomes a business which is based on knowledge.

For such a new attitude towards the leading companies foreigners have developed the concept of "knowledge management" (Weeb, 1998, pg. 5). In our literature, it is rarely mentioned area, therefore it’s necessary to find a suitable English translation of this phrase. Because of the possibility of multiple translations of the word management (administration, management,) there are possible translations for "knowledge management": "knowledge management", "managing the knowledge", "know-how management" and "operations with knowledge."

The introduction of knowledge management is a very demanding job for organization which in many cases is a long process that through consistent implementation and appropriate use of the organization safely returns financial and other investments and efforts.

Recently, more and more emphasis is given to knowledge management in the organization, with its study and introduction are dealing many acknowledged experts with theoretical as well as practical introduction to the practice.

1. ORIENTATION TO KNOWLEDGE MANAGEMENT

Successful knowledge management means the key that leads to enlargement of the many business challenges in the enterprise, and is a source of strengthening the competitive advantage of a company.

For a more detailed understanding of management is also necessary to highlight and to study it at the same time from many perspectives. Knowledge is very complex, is born in the heads of individuals, and is therefore very personally, which means that for its management we need to use different methods (support individual and group creativity, willingness to share our knowledge with colleagues, strengthen team spirit ...), with whom the organization achieve adequate environment and systematic deal with the creation, preservation, security and
expansion of that knowledge between employees, which is important for the business success of the organization.

Knowledge management does not know a simple definition, because this area means wider scope in the enterprise, which refers to the culture, organization of the enterprise, human resources management, the motivational system, the educational process. Basically it is about intellectual capital of the enterprise, depends from which angle you are looking.

Kilpi (in Amidon, Skyrme, 1997, pg. 31) believes that knowledge management is the normal evolution in management and the concept of integrated governance quality. He emphasizes the vital perspectives of the organization.

Wiig (in Amidon, Skyme, 1997, pg. 33) is of the opinion that the management of knowledge, as in organizational creativity, operational effectiveness, quality of products and services, is larger, because organized knowledge management provides better connection, and in that way exploits knowledge of employees.

Keynes (in Weeb, 1998, pg. 12) thinks that the knowledge management is a concept, which significantly affects the organizational effectiveness of adaptation and experiencing in the dynamic environment. Enables and supports the organizational processes that lead to the greater synergy effects combinations between data and information, information technology and innovative capable employees.

Because of a potentially very wide view, which includes the concept of knowledge management, in accordance with our thinking will try to identify and specify the scope, which in our study framework emphasizes and is essential for the understanding and implementation of knowledge management in practice. These are:

1. Strengthening the organization's intellectual capital. Organization's intellectual capital includes different knowledge of employees, references that is the image of a company, so it is important that the company planned builds a vision for increasing the value of intellectual capital, and try to consistently achieve better. It is about identifying and building a system of intellectual capacity, which will be needed in the future for a competitive race on the market.

2. Identifying, recognizing and using knowledge that already exists in a particular organization. It is significant that in every organization to identify the knowledge which is
crucial for the existence and progress of the organization. So then we can potentially choose between the existing and required knowledge in the company.

3. Evaluation and measurement of benefits and values, which causes the introduction of the concept study and designing new methods and models.

4. The realization of the working environment that supports innovation, gaining and achievement new knowledge. This means the design and support for organizations that learn the culture where individuals are motivated to learn and self-study, ready to solve business challenges and identify opportunities offered by the environment and developing social networks, which means the external source of new knowledge for the organization.

5. "Unlocking" of knowledge in the heads of individual employees and seeking ways of winning the barriers of individuality and selfishness to keep their knowledge and thus enable the efficient flow of knowledge between employees. This would achieve the effect of synergy of knowledge in the organization.

6. Consistent development of knowledge management strategy within which is necessary to determine the boundaries, standards and processes for effective implementation of knowledge management in practice.

1. 1 Principles of knowledge management

During knowledge management we encounter some basic findings, concerning the introduction of knowledge management in the enterprise.

Tom Davenport, who is one of the key authorities in the field of knowledge management quotes ten fundamental principles of knowledge management (in Amidon, Skyrme, 1997, pg. 43.):

- Knowledge management is expensive. Companies that are intensely dealing with knowledge management in development, invest 5% to 10% of income to it.

- Effective management requires a solution for collaboration and association of technology and humans, because the information technology is a connection and auxiliary tool which allows you to "catch" and the transfer knowledge through the organization.
• Knowledge management can also have a political note, applying the principle of "knowledge is power." It is significant to convince the people that the common knowledge is that knowledge that has a maximum power.

• Knowledge management requires competent individuals who are engaged in knowledge management, and are responsible for introducing the concept into practice.

• For knowledge management a greater practical value have cooperation and communication in the company rather than a strict hierarchy.

• Although the knowledge management and its expansion between employees is not so frequent activity, it is necessary to support individual employees and encourage them to share knowledge with their colleagues.

• Knowledge management means improving the processes related to knowledge, which means that the improvements must be registered also in processes involving the creation, use and dissemination of knowledge.

• Access of employees to the knowledge is only a foundation, the users of knowledge - employees must include and bind their knowledge together, that is necessary for the successful operation of the organization as a unit.

• Knowledge management is a concept that runs continuously. Has to become a permanent part of the company, as well as financial management, human resources and others.

• For successful knowledge management is needed so called unwritten contract of knowledge, that decides who of the employees has specific knowledge and who is entitled to use it.

When stating the key principles of knowledge management Davenport emphasizes the importance which has a flow of knowledge in the organization and establishes the condition and extents which are necessary for the smooth flow and the mediation of knowledge between employees. It is necessary to support and to "grow" the employees in the organization for an open and unobstructed cooperation and willingness to transfer their knowledge and experience to associates.
Knowledge management is a new holistic view of knowledge and points to its useful value, provides certain sources, assumptions, and methods for successful implementation of the concept into practice.

1.2 Former development of knowledge management

The ancient philosophers and thinkers have already studied the importance of the knowledge so that knowledge isn’t a phenomenon of innovation today, but the knowledge as a factor of management (Pučko, 1998, pg. 54) in past few years began to be the subject of scientific researches and professional debates.

The first overall European symposium entitled "Knowledge Management for Executives" in 1994. was organized by the University of Erasmus Rotterdam. The studied concept has achieved his boom on the first European conference, which was organized in the spring of 1996. In the period 1996/1997 appeared real explosion of books and articles, which were focused on knowledge, its importance for the competitiveness of the organization and conducting business.

Debra M. Amidon (Amidon, Skyrme, 1997, pg. 18) who deals with studying the development of the concept of knowledge management, has divided the literature which she inherited in this area into three different categories.

The most quoted author, who intensely dedicates to the studied thematic, is Ikujior Nonaka (Nonaka, 1995, pg. 12). The first article that talked about the great importance which has a design, mediation and flow of knowledge for the competitiveness of the organization, has announced in 1991st in Hardward Business Review. This article for many managers meant the first meeting and presentation of knowledge management thematic. His findings and establishment is presented later in the famous work "The Knowledge creating company", as a particularly Japanese approach to the development and use of knowledge management in practice.

1.3 The importance of knowledge to the modern organizations

There are more and more modern organizations, wishing to set up a competitive side by side with powerful competitors, and are aware of the importance of knowledge and its management, because it is the intellectual capital and its proper controlling what separates good businesses from bad.
This knowledge includes an increasingly important role in various business activities. Especially great importance have know-how factors, which enable organizations to maintain or gain advantage in the competitive market (Weeb, 1998, pg. 14.) such as:

- The ability of recording and exploiting market opportunities in the area. It is necessary to develop the expertise for evaluating and judging, so that market of ideas can become market of opportunities.

- The use of so-called knowledge of customers which companies use for improving and developing new products. This ability of immediate, timely recordings and determining wishes and references of customers and their appreciation in specific products, is crucial, because it provides a company to realize the products, which are based in accordance with the needs of customers, and that leads to higher potential sales of such products or services. To achieve such knowledge - the feedback information of users, it is necessary to support the access and the flow of knowledge outside the organization, to enter the external environment.

- Improving the flow and access to the knowledge and determination of its source and location in the organization, can reduce or even completely avoid the costs that would otherwise occur if they would like to find or get the knowledge that in the organization already exists.

Knowledge is the introduction, which allows the successful performance of certain organization, which is a very strong factor to those who support the use of knowledge management in organizations. In doing so, we break up:

- Creating and using new knowledge,
- Exploitation of existing knowledge.

Nonaka (Nonaka, 1995, pg. 91) emphasizes the great importance of realization or creation of a new knowledge for the organization. On the newly generated knowledge that needs to elevate and accurately obtain through a continuous learning process, the company changes to a useful value and use it well when filling the existing and developing new products or services by offering a quality service.

1.4 Factors affecting the management of knowledge
The introduction of knowledge management in organizations is a complex process that requires adequate support both at the level of the organization as a whole and the individual employee.

At the level of the organization as a whole we need to issue corresponding management, organizational structure and organizational culture, which with the appropriate directions for high quality transfer of knowledge exceeds into the culture of knowledge in the company.

One of the basic conditions for successful implementation of knowledge in the company is support of the leadership, who must be fond of all the changes and financial role and which requires the management of knowledge.

Every project of knowledge management is also a project of changing organizational culture, where employees prepare for the unselfish sharing of knowledge with one another which is in times of unemployment a very difficult task because the competitive advantage of each individual is exactly that, what he knows.

We can talk about the gradual transformation of organizational culture in the organizational culture of knowledge, where becomes with the already formed elements of organizational culture. Crucial mutual cooperation of all employees is both in the creation and transfer of knowledge among colleagues in the organization.

The most significant conditions for success of knowledge management are related to employees and organization. Knowledge management is a process that requires a great dedication and staff support, which must be appropriately rewarded and motivated by the leadership.

The drive motor, which takes care for the development and flow of knowledge, impose the need and desire of employees to contribute with their abilities in solving problems and improving business processes.

The model, which allows and provides the foundation for the development of so-called culture of knowledge in the organization and thus meets the requirements for effective management and implementation of knowledge in the organization is presented in Figure 1.
2. INTRODUCTION AND CONSTRUCTION KNOWLEDGE MANAGEMENT IN THE COMPANY

2.1 Management processes with knowledge

In the introduction of knowledge management in the organization we meet with the processes who are essential and indispensable for the introduction and development of knowledge management for the particular company. Among the most important processes of introduction of knowledge management also belong processes of identifying significant knowledge of the company and the decisions of sources of knowledge, knowledge creation and flow of knowledge between employees, forming base of most important knowledge in the enterprise and ultimately the establishment of such systems and mechanisms in the company, which correspondingly guard obtained knowledge over the competition.
2.2 Challenges with implementation of knowledge management

A well known used fact is that changes are constant in our lives. And this applies not only to humans, but the organizations too because they are exposed to the dynamics and unpredictability of the environment. Indisputably, companies who want to introduce and be ready for changes in the practice, have to use knowledge management.

Willingness to change is essential and a necessity if the organization wants to maintain or gain a competitive position in the market. How people by nature tend to not like to leave the known and pleasant atmosphere, the leadership of a company has to know and want to pay particular attention to employees, and to understand at the same time the necessity of the changes in the company and to adapt to the changing proportions of the environment.

With the implementation of knowledge management we are dealing with changes, in which a positive result does not show in a short term, but only after a certain time of introduction.

Realizations and presentations of changes in the organization in many cases can be very difficult, long term and sometimes painful for both employees and the management. That is why we have to timely plan changes in the organization and consider possible twists and resistance. Changes occupy an important position in the company and require proper management and correct attitude from a company management particularly as incorrectly led strategic change may mean long-term failures and hard fixable errors for the company.

2.2.1 Measuring the impact of introduction of knowledge management in the enterprise

We have already mentioned, it was difficult to evaluate the intellectual capital of enterprises, and even harder to measure the effects, which has the introduction of knowledge management for the enterprise, and to measure, in what extent the company returned his investments with the introduction of knowledge management. Effects resulting from the introduction of knowledge management are shown especially indirectly, such as rationalization of education and training of employees to a greater mutual cooperation and greater innovation in the enterprise.

Auxiliary tools and methods, with which we would directly measure the effects of the introduction of knowledge management in the company are not recorded. The fact is that the effects of the introduction of knowledge management in practice don’t show up immediately.
In evaluating the effects of the introduction of knowledge management were used following criteria:

- Income, realized due to implementation of new ideas,
- Number of levels that cooperate in the enterprise, as they agreed on key investments,
- The productivity of key personnel,
- The quality of decisions,
- Percentage of revenue from new products.

Companies are faced with the problem of evaluating the effects of training and education of employees. Company which takes into account evaluating and assessing the effects of training, mostly use so-called four level model of assessment training. Model of the effect of the training value in four levels, is shown in Figure 2.

Figure 2: Four levels of effects of training evaluation model (Dean Spitzer: How to Manage and Measure Learning Effectiveness, IBM, 2001)
3. EMPIRICAL STUDY OF KNOWING AND THE POSSIBILITY OF INTRODUCING OF KNOWLEDGE MANAGEMENT IN BOSNIAN COMPANIES

In the empirical part we consider and examine in what condition is knowledge and introduction of knowledge management in selected Bosnian companies. We are interested in view of the importance of getting the new, and the ability to exploit existing knowledge in the company.

I suppose, that selected successful businesses have more or less regulated education of employees, however it is significant that the companies build an organizational culture that enables and supports the flow of getting knowledge across the organization and the ability to link individuals in work groups, where the knowledge of one employee will enrich and expand synergistic.

In the empirical part of the task we determine the importance of contributing knowledge in the company of various activities, what kinds of knowledge we differ, in what ways to gain knowledge, how to exploit it and change it in the usability.

The results of the empirical part shows the current image in the field of management with knowledge in selected Bosnian companies and which are activities that would be needed for further development and use in practice.

3.1 Presentation of the methodology and sample setting for empirical research

In empirical studies we decided for the method of standard interviews with the directors selected in Bosnian companies. Personal interview was directly conducted with often warnings. It included 15 questions, which were related to subject of study.

Directors of selected companies that were willing to cooperate in this study, we pre-sent a brief presentation of the purposes of research, the key outcomes of management with the knowledge and warnings, with witch was the interview done.

As we wanted to gain insight into knowledge of knowledge management in the empirical part, his understanding by leadership of Bosnian companies and the possible introduction of knowledge management in the selected companies, we decided to include companies of various branches in this research. So I included ten companies from various sectors in it.
Company A, which belongs to the pharmaceutical industry, with a total of 630 employees is among the most surveyed companies that we included in this study. The company is arranged as a joint stock company. Production program of a company make pharmacists, veterinary and cosmetics. The average age in the company is 39 years, indicating a mature collective. The educational structure of the company: Doctors and masters in Science 3.5%, University degree 50%, College degree 17%, secondary education 20%, qualified 7%, semi-skilled, unskilled 2.5%.

![Educational structure of the pharmaceutical company](image)

Figure 3: Graphical presentation of educational structure in pharmaceutical company

Company B belongs to a production of machinery and technical equipment. It is one hundred percent owned by foreign motherboard company. There are 336 employees. The average age of employees is 32. The qualification structure of employees: a university degree 5%, college degree 3.5%, secondary education 28%, 1% of skilled, semiskilled, unskilled 62.5%.
And so all other companies, the remaining 8 of them from various sectors.

I present the results for each question separately so that firstly we ask questions and then quote selected interlocutors answers, their number and percentage.

The answer to the question "Have you heard of the term knowledge management previously, or the concept of management with the knowledge?"
To the question "What do you imply by the expression of intellectual capital"? respondents replied as shown:

![Figure 6: Graphical display of orientation to a term intellectual capital](image)

When asked "Do you feel that knowledge is important for the business success of the company"? surveyed responded, as shown:

![Figure 7: Graphical presentation of the importance of knowledge for success of a company](image)

When asked, "In what do you see the importance of knowledge in your organization?" Respondents answered as shown:

![Figure 8: Graphical presentation of the importance of knowledge in the enterprise](image)
When asked "Do you think that the knowledge that exists in the company is well exploited?"

![Graphical presentation of results on the utilization of knowledge in enterprises](image)

Answers to the question "Which department is responsible for acquiring the knowledge?"

![Graphical presentation of responsibility for acquiring knowledge in enterprises](image)

When asked "Are your employees willing to constantly improve and learn?"

![Graphical presentation of the results for willingness of staff for education](image)
When asked "Do you have employees willing to share their knowledge with their colleagues?" Interviewees responded, as shown.

To the question "What structures of employees are most educated?"

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**Figure 12**: Use value of knowledge in the enterprise presented graphically

**Figure 13**: Graphic display of the willingness of individuals to exchange knowledge in the company

**Figure 14**: Graphic presentation of the employment structure which is most educated inside the company
CONCLUSION

The concept of knowledge and interest isn’t new, but it reaches far into history. Despite of that the knowledge management presented in the paper is different, more holistic view of the importance of knowledge and its management in the organization. Knowledge management has revealed publicly for the first time only a few years ago, so I can say that they with their resources are just drawing the path between the well known and recognized ways of working, and are clearly constantly forming, complementing and enriching.
Companies that have decided for not-so-easy path to knowledge management implementation in practice, have to face many challenges and changes that are crucial for the successful functioning and life of this concept in the company. Key factors for successful introduction of this concept in the organization are: support of the leadership of the company, flexible organizational structures, an appropriate organizational culture, inter- and intra-organizational connectivity and knitting of social networks, modern information technology which provides active communication within the organization and the relationship to the external environment, and appropriate personnel policies and motivating system. Managing knowledge management means in particular managing with people where is primarily significant individual, and not as so many think, technology. The final is only the connection between individuals and many unorganized information, data.

On the basis of empirical work I note that the leadership of successful Bosnian businesses are with the term of knowledge management poorly informed, even though most interlocutors responded that they had been at least partially introduced it in the company. It is about unknowing of the term itself, although the fundamental sources with knowledge management are already partially used in practice. In most of the studied companies were aware of the significance in rise, which has for the success and prosperity of the company his intellectual capital. Enlightenment in this direction shows a good learning processes organized in the company, whose results are not fully utilized, because the respondents evaluated that the flow of knowledge and mutual cooperation among employees and the environment would be a lot more active. They are aware of the fact, that exactly that is the black spot, and that would be necessary to start solving this problem intensively.

Research data indicates that the management of a company wants methods or tools with which they would asses investment income assigned for training and education of employees. In that way it would be easier to decide to continue the education process, and would eventually be able to assess the overall added value arising from higher intellectual capital of the company.

Employees mean the vital potential of the company, which can, if properly guided and directed, with its creativity, innovation and mutual interaction led the company to top of success. The key is that the leaders of the company see the knowledge that is hidden in employees and recall it to the surface, build it and support staff for mutual cooperation, because knowledge is only so enriched and contributes to greater competitiveness of the
whole enterprise. It is not enough only the volume of knowledge we produce, it is necessary to determine the priority knowledge for the enterprise, to identify it, take care of his organization and flow through the organization. All of this also allows modern information technology, but the man as a factor still remains first place.

We think that the Bosnian enterprises should be encouraged to introduce the concept of management with the knowledge, and from that introduction to expect effects and results that they haven’t known yet. Such a project we introduce like a pilot into concrete Bosnian companies and hope that its implementation will be successful and thus open the door to new jobs and other companies for the planned management of knowledge.

We conclude also with insights, that the power doesn’t lie anymore only in knowledge, but especially in his trade, and so resulting synergy, which is one of the fundamental assumptions of knowledge management.

LITERATURE


