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**The influence of the education level of the standards in South-Eastern European countries with the focus of macedonia and the age of the employees on the knowledge management implementation in the organizations – case with the telecommunication market in harmonized standards of E.U. together within the Republic of Macedonia**

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**Abstract:**

*The era of knowledge brings new changes that are seen in the rapid advance and development of science, engineering and technology, which in turn entails changes in society, as well as on the market, creating new “rules of the game” to which organizations would have to respond. In these conditions of the dynamic environment, the knowledge management is considered as a strategy to gain competitive advantage. This concept comprehends the most important and relevant issues related to the adaptation of the organization, its survival and its competencies.*

*The objective of the research is to examine the significance and the influence of the education level and the age of the employees on the knowledge management implementation. The research was conducted on the telecommunication market in the Republic of Macedonia which is characterized as an open and dynamic market. The research was carried out in 10 companies, to a sample of 100 respondents – employees in these companies.*

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*The results show the awareness of the employees for the need for constant improvement of the professional knowledge. Also, the education level and the age of the employees have influence of their attitude about several factors of knowledge management implementation which were researched.*

**Keywords:** dynamic environment, knowledge management, telecommunication market, level of education and age of employees

### **JEL Classification:**

#### **1. Introduction**

Considering the current situation of the open markets, it becomes clear why organizations need a new management paradigm of work that will correspond to the current conditions: markets are increasingly competitive, and the rate of innovations is increasingly growing; the time for gaining experience and knowledge is reduced; early retirement and increased mobility of the work force; the larger part of the companies' work is based on information; products and the services are complex, most often enriched with informational components; the need for continuous learning is becoming an inevitable reality.

The dynamic environment and the struggle for survival in it, made organizations turn towards continuous and fast acquisition and maintenance of today's most powerful resource – knowledge.

The organizational knowledge represents the overall knowledge of the employees, a specific property of the organization, above all due to its intangibility, which is not the case with buildings, land, equipment, etc. It constitutes the knowledge of the employees – the human resources. The knowledge of the employees, their skills and abilities determine the way in which the organization operates.

The organizational knowledge is in fact creating value through practical application of knowledge – to turn knowledge into products, services or processes which will bring new value to the organization.

The concept of knowledge management started to be written and spoken about in the nineties of the last century. However, the idea of knowledge management is much older. This can be seen through numerous examples of organizations which exist for decades and in which knowledge is passed from one generation to another – procedures and practices in work, technological processes, formulas, etc.<sup>147</sup>

Knowledge management is maximizing the advantage of organizational knowledge,

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<sup>147</sup> Hansen M.T., Nohria N., Tierney T. "What's Your Strategy for Managing Knowledge", Harvard Business Review, march-april, 1999 p.23

identifying information, wisdom, and strengthening human and digital capabilities. Knowledge management is the creation, storage and transfer of knowledge in the organization.<sup>148</sup>

## **2. The significance of knowledge management as a strategy for acquiring competitive advantage at the current conditions on the open market**

The era of knowledge brings new changes that are seen in the rapid advance and development of science, engineering and technology, which in turn entails changes in society, as well as on the market, creating new “rules of the game” to which organizations would have to respond. These changes are especially visible in the last ten years, and the following can be distinguished in brief:<sup>149</sup>

- Knowledge becomes a crucial issue for the success of the organization. Competitive advantage is built through managing and connecting employees that possess specific knowledge and skills.
- The time for decision making is significantly shortened. The dynamic environment and the changes occurring in it do not leave space to the organization for long consideration. Timely, quick reactions that will follow current changes are needed.
- Relations among employees are becoming very complex. The new conditions of work emphasize the importance of independence, communication skills, and the ability to build and maintain good relations with the employees in the organization. Virtual organizations are a common occurrence, which reduces the need for physical contact of the employees.
- The information and communication technologies are increasingly being incorporated into the interactions among people, as well as into business transactions. People have become dependent on technology to such an extent that literacy is no longer reading and writing, but work on computers.

The process of globalization is characterized through creating and conquering new markets, finding new and cheaper raw materials, decreasing the risk during work, dominance of the international markets by the multinational companies.

<sup>148</sup> Argote L., McEvily B. and Reagans R., “Managing Knowledge in Organizations: An Integrative Framework and Review of Emerging Themes”, Management Science Vol. 49, No. 4, Special Issue on Managing Knowledge in Organizations: Creating, Retaining, and Transferring Knowledge, Apr., 2003, pp. 571-582

<sup>149</sup> Slavković M., “Korporativno upravljanje u tranziciji – vlasništvo, kontrola, menadžerske kompetencije”, in Upravljanje znanjem i menadžerske kompetencije, Kragujevac: Ekonomski fakultet, 2006, pp. 180-199

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Knowledge management is an interdisciplinary business model which has the knowledge of the organization in its focus. This concept is the embodiment of the processes within the organization that strives towards combining and interaction of data and information, which increases the capacities of the information technologies and human capital.

Knowledge management is a process that should continuously take place within an organization. The objective of this process is not only to manage the knowledge in the organization, but also to create conditions for its creation, distribution and use. Special attention should be given to the creation of the knowledge in the organization, which requires the provision of adequate conditions and ambience. The process of knowledge management itself can be introduced through six stages:<sup>150</sup>

- creation of knowledge
- learning
- distribution of knowledge
- transfer of knowledge
- use of knowledge
- storage of knowledge

When the organization creates a specific knowledge, the next thing that should be done is to share it with the rest of the employees. Sharing or multiplication of the knowledge delivers greater benefit to the organization. More individuals will acquire new knowledge, apply it in the work of the organization, but also, the chances for improving or upgrading knowledge will increase.

These days, there is no alternative solution to organization other than the advancement and application of the concept of knowledge management.

The aim of every organization is to achieve sustainable competitive advantage because, through the increased income, it enables growth and development of the organization. Competitive advantage in modern economy is the result of the successful use of the organizational knowledge.

Therefore, the knowledge management should provide:

- innovation through encouraging the expression of the ideas of employees,
- improvement of services provided to consumers,
- increase of income through improving the distribution of products and services,

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<sup>150</sup> Malhotra Y. "Knowledge Management in Inquiring Organizations", Proceeding of 2RD Americas Conference of Information System (Philosophy or Information Systems – in Track), Indianapolis 1997 p.56

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- reduction of employee fluctuation through recognizing the value of knowledge and accordingly rewarding the activities related to the application of knowledge in everyday work,
  - improvement of the processes and procedures of work and reduction of the costs of work.

Knowledge management leads to advancement of the communication processes in the organization and improves the cooperation among employees. A healthy communication and an atmosphere that encourages cooperation within the organization contribute towards increasing the trust and the mutual respect among employees, as well as improving the skills, processes and functions of the organization.

Knowledge management can also improve the effectiveness of the organization through advancing the decision-making process, or through making and carrying out the right decisions.<sup>151</sup> Knowledge management enables the gathering of all the relevant information that are also applied in the process of decision-making, which in turn contributes to top managers being well-informed about everything happening within the organization and out of it. Managers who are well-informed and up-to-date with current developments both in the organization as well as in the changing environment, are able to react better to unexpected events (changes), to adapt easier, to modify current activities if necessary.

Although the application of the concept itself is costly, the benefit for the organization is greater. Knowledge management may lead to advancement of the organization's efficiency through reduction of production costs, reduction of production time, reduction of decision-making time, etc.

The concept of knowledge management encourages both the creativity and the innovation in the organization. The approach to organizational knowledge may encourage generating of new creative solutions to specific problems.

The effects of the application of the concept of knowledge management are difficult to measure and express quantitatively. Namely, as with all other strategies, knowledge management also produces long-term results. The results from this concept cannot be exactly represented, but they can be described instead.

### **3. The objective of the research**

This research examines the knowledge management implementation in correlation with the education level and the age of the employees. The objective of the

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<sup>151</sup> Nikolic S., Miladonoski S., Tast J., "The globalization and the role of knowledge management the case of Republic of Macedonia", Journal of Advanced Research in Management, Volume IV, Issue 2(8) Winter 2013.

research is to illustrate the connection between the education level and the age of the employees on one side, and the relevant factors of knowledge management implementation, on the other. In this respect it would be examined how different education level and age influence on the knowledge management implementation, regarding the organizational culture, human resource management, motivation system of the organization etc.

#### 4. Methodology

##### *Participant*

The research was conducted in 10 companies on the telecommunication market in the Republic of Macedonia, to a sample of 100 respondents – employees in these companies.

##### *Materials and instruments*

The questionnaire that was given to respondents was formed with multiple choice questions, using the Likert scale. The respondents had to choose one from five offered alternatives which expressed their level of agreement or disagreement for a series of statements.

The analysis of the results was made using  $\chi^2$  test in purpose to underline the correlation between the education level and the age of the respondents and their answers on the questions. Also, Spearman's coefficient is been used to illustrate whether the influence of the education level and the age of the respondents on their answers is directly or inversely proportional.

##### *Procedure*

The employees in the organizations on the telecommunication market were asked to respond the questionnaire in purpose of getting the needed information for the thesis. They answered the questionnaire. The collected results were systematized, processed and discussed.

##### *Constraints*

Proposed answers are given to respondents. Most often they are subjectively determined.

#### 5. Results and discussion

In their efforts to accept the paradigms of the developed and successful companies, Macedonian enterprises should not disregard the fact that the modern knowledge-based economy sets the organizational knowledge as a key imperative and the factor of productivity and efficiency. The processes of EU integration created a

global competition. This meant a constant adaptation according to external factors and development of internal capabilities of the organizations.

The majority of respondents who participated in the survey, are between 26 and 36 years old, immediately followed by respondents who are between 36 and 45 years old with 25%. 7% of the respondents who answered the questionnaire are aged to 25 years, and only 3% of the respondents are between 46 and 55 years old, which indicates a relatively young population working in the organizations that are the subject of this research.

Regarding the qualification of the employees, the majority of the respondents are highly educated – 63%, and the percentage of those who have completed their master studies as well, is also high – 30% of the respondents. Only 7% of the respondents have completed their secondary school education.

The results show significant correlation and direct proportional influence between the age of the respondents and their attitude about the process of globalization which increased the competitiveness on the telecommunication market in the Republic of Macedonia. This means that the older respondents think that the competition on the telecommunication market is increased. On the other side, there is significant correlation and inverse proportional influence between the education of the respondents and their attitude about this question. The respondents with higher level of education don't think that the competition on the telecommunication market is increased. Regarding this, it could be concluded that the older employees felt the change occurred on the market, but the employees with higher education level don't think that the competition is increased because they feel safe and competitive with their knowledge acquired in the process of education.

The results show is significant correlation between the age of the employees and their attitude about the role of the human resource management in the competitive conditions on the open market. The influence is directly proportional, which means that the older employees emphasize the importance of the human resource management the competitive conditions on the open market.

There is significant correlation between the education of the employees and their attitude if the managers undertake activities to improve the knowledge and skills in the organization. The results show that the respondents with higher level of education recognize that managers undertake activities to improve the knowledge and skills in the organization.

The results show significant correlation between the age of the employees and their attitude about the need of participation on the professional trainings and courses in purpose to improve and upgrade the knowledge and the skills. Regarding the inverse proportional influence, it can be concluded that the younger employees

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recognize the need of participation on the professional trainings and courses in purpose to improve and upgrade the knowledge and the skills.

The inverse proportional influence occurs between the education of the employees and their attitude about the need of constant improvement of their knowledge in the field of their profession. The employees with the lower education level recognize the need of constant improvement of the knowledge in the field of their profession.

There is significant correlation and inverse proportional influence between the age of the employees and their attitude about the need of constant improvement of their knowledge outside of the field of their profession. This means that the younger respondents recognize need of constant improvement of their knowledge outside of the field of their profession.

There is significant correlation between the age of the employees and their attitude about the knowledge gained on the professional trainings and courses which should help them in decision making process. Regarding the direct proportional influence, it can be concluded that the older employees think that knowledge gained on the professional trainings help them in decision making process.

The results show significant correlation between the education of the employees and their participation in the problem solving in the organization by giving creative ideas. The direct proportional influence illustrates that the employees with higher education level participate in the problem solving more than the employees with lower education level. This indicates the need for constant improving of organizational knowledge in purpose to include all the employees in the problem solving process by giving creative ideas.

It's been researched if the employees are motivated to share their knowledge with their colleagues in the organization. The significant correlation and direct proportional influence show that the older employees are more motivated to share their knowledge with their colleagues in the organization.

There is significant correlation between the age of the employees and their opinion about the organization culture as a motivational factor for improvement of their knowledge. Because the influence is direct proportional, it can be said that the older employees recognize the importance of the organizational culture as a motivational factor for improvement of their knowledge.

Regarding the organizational culture, it's been also researched if it is motivational factor for sharing the knowledge. The results show significant correlation and direct proportional influence which indicate that the older employees recognize the organizational culture as a motivational factor for sharing their knowledge.



## 6. Conclusion

Considering the changing and unpredictable modern business on the open market, and the struggle for conquering competitive advantage, companies are intensely focusing on the knowledge they possess. Developing the necessary knowledge within the organization, requires a focused combination of the knowledge and the abilities of all the participants in the management process – people, technologies and processes.

In this respect, knowledge management is considered to be a strategy which can meet the new conditions on the open market and can make the organization more competitive. The implementation and the effectiveness of this concept depend on several crucial factors such as organizational culture, human resource management, information technology.

The technological changes and the complex environment are extremely important in the telecommunication market. Also the legislation has opened the market and stimulates the competition. Regarding the dynamic changes on the telecommunication market the knowledge management is recognized as a strategy for acquiring competitive advantage.

Regarding the results of the survey, it can be concluded that the employees are aware of the increased competition occurred on the telecommunication market. It has to be noticed that the older employees recognize this change on the market. Also, the older employees recognize importance of the human resource management the competitive conditions on the market. The older employees are more motivated to share their knowledge with their colleagues in the organization. In spite of this, the younger employees emphasize the need of participation on the professional trainings and courses in purpose to improve and upgrade the knowledge and the skills. The importance of the knowledge is illustrated with the need of constant improvement of their knowledge outside of the field of their profession, which is also recognized by the younger employees.

Considering the age of the employees, results show that the younger employees are more interested in improving their knowledge, but the older employees also recognize the need for improvement of the knowledge. Having in mind that, managers should focus in motivating older employees in the organization in improving their knowledge by participating in professional trainings and courses.

Regarding the level of education, it can be concluded that respondents with higher level of education recognize that managers undertake activities to improve the knowledge and skills in the organization. Also the employees with higher education level participate in the problem solving more than the employees with lower education level.

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The employees with the lower education level recognize the need of constant improvement of the knowledge in the field of their profession.

This results show clearly the awareness of the employees for constant improvement of the knowledge. This confirms the influence of the increased competitiveness of the open market and the need of knowledge management as a strategy for gaining competitive advantage.

Managers should focus on enhancing and upgrading the knowledge of the employees. They should be aware that employees are individuals with different age and level of education which indicate their different needs. Considering this, managers should have individual approach to each employee in purpose to explore the maximum of the human capital in the organization.

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