

THE TYPE OF WORK ENVIRONMENT AND THE DEVELOPMENT OF INNOVATION WITHIN ENTERPRISES IN MACEDONIA

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Abstract

This paper in the foreground emphasizes the need of connection of the type of work environment and innovation of enterprises. Innovations, as an initial development impulse and an important factor for building a sustainable competitive advantage of enterprises, deserves a closer observation in terms to establish the specifics that determine them. The type of work environment is certainly just one of the important segments that have a strong impact in term so inhibiting or encouraging creativity and innovation within the enterprises. This paper aims to establish the condition on this matter in enterprises in Macedonia, what kind of work environment is typical for Macedonian companies and how it contributes to the development of their innovation. In this sense is the hypothesis, whose testing is necessary to determine the presence or absence of a connection between these two segments (innovation and type of work environment) in Macedonian enterprises. For this purpose the focus of the research are companies which show innovation in their work. It is about 31 enterprises all on the territory of the Republic of Macedonia. The results of the survey aim to detect the condition on this issue in enterprises in Macedonia, to determine weaknesses and to make proper recommendations for future development through improving their management in terms of creating a better work environment, which will go in favour of creating better business results through innovation.

Key words: *creativity, entrepreneurship, innovation, Republic of Macedonia, working environment*

1. Introduction

Innovations, as an initial development impulse of companies and an important factor for the development of sustainable competitive advantage of them, deserve a closer observation in terms of establishing the specifics that determine it.

We know that this is a specific category of activity that is primarily mental, and then physical, that requires specific conditions for its development. The working environment is just one of the many factors that have a strong influence in terms of inhibiting or encouraging creativity and innovation within the enterprises. Among other internal factors that affect the development on entrepreneurship and innovation, beside the work environment, also include: organizational culture, positive attitude towards risk taking, type of leadership, human resource management and so on.

The first precondition for development of innovation is having enough space for development of creative thinking. Creativity can be defined in many ways, but in the broadest sense it means the ability or power to create new forms through using imaginative skills.¹ It is a complex concept that can be manifested differently and in different domains. In the field of entrepreneurship creativity is reflected through originality and used as a feature, because of the entrepreneurial creativity gets its meaning when it is able to influence the business, individual, culture, system etc. However, innovation i.e. the invention itself has no meaning for entrepreneurship. To get its entrepreneurial dimension it should be implemented. That is the difference between creative individuals and real entrepreneurs:²

$$\textit{entrepreneurial creativity} = \textit{individual creativity (socio-cultural environment)} + \textit{entrepreneurial action}$$

2. Innovation and creativity

Today it is known that creativity is not a privilege for certain individuals, but something that everyone possesses, but the difference is in the degree of its development and the ability of the individual to use it. In that direction are the four ways to develop creative thinking:³

- **First way: Habits of the mind** - the view that people have are not innate, but are acquired depending on the life path. That is why, because of the way they are gained, they can be changed. In that direction is the possibility of mental shaping according to the needs, for example, to cope with the complexity of the problems, to ask more questions and search for answers, to develop the needed patience, to observe problems from different points of view and so on. The development of these and similar habits will contribute to increasing the creative potential of the individual.
- **Second way: State of mind** - it is known that mood, quality of attention and level of concentration, positive thinking etc, influence the mental activity and the work performance. As much as people are aware for the state of the mind and its impact, that much they can control it. Thus, for example, it is known that when you are tired you can't concentrate easily on details or when you are sad it is hard to be witty at the same time. For the creativity the ability to flexibly and appropriately move between different dimensions of consciousness is vital. The three dimensions that have the greatest impact on the state of mind are: focus, orientation and sociability.

¹ Kariv, D., (2011) *Entrepreneurship: An International Introduction*, Routledge, New York, p. 54.

² *Ibid*, p. 56

³ Claxton, G., Lucas, B. (2004), *The Creative Thinking Plan: How to Generate Ideas and Solve Problems in Your and Life*, BBC Books, London, p. 9.

- **Third way: Creative techniques** - there are some creative techniques that can be focused on different aspects such as: awakening the creativity, idea generating and so on, and as such they can serve as an appropriate approach to resolve problems, therapy etc. By its nature, the creative techniques can include wordplay, different types of improvisation, written exercises, etc.⁴
- **Fourth way: Creative context** – an extremely important for the development of the creativity is precisely in context in which it occurs. The context can influence in the direction of limiting or encouraging creativity. Therefore, taking into account and studying the context in not a secondary, but a primary task when researching creativity. Namely, in the analysis of creative events it is necessary to take into account the circumstances in which they occurred, to isolate details that positively and negatively influenced them in order to improve the conditions in terms of increasing the creativity.

On the other hand, the process of innovation, in fact, is a process by which newly initiated ideas are put into use. This explanation of the innovation process is equally important at the level of organisation and at individual level. However, to explain in detail the procedure of putting the idea into use it is necessary to use the Model of two stages, as a model most commonly used for this purpose.

Namely, this model implies the following two stages:⁵

- **Stage of initiation** - or also known as the phase for generating ideas, consists of all the activities that are involved and contribute to the generation of ideas. At this stage the creativity of the person comes to light. This phase largely resembles the process of creative problem solving. It should be taken into account that the procedures of solving problems not always necessarily mean innovation, for example, when solving the problems we can turn to existing working solutions, but for that difference innovation, almost always appears as a solution to some problem. Innovators who create innovations as a result of a problem are called inventors, and their innovations are often commercialized by a company.
- **Phase of implementation** - follows the stage of initiation. This phase involves an initial use of created products (processes or systems) and their subsequent continuous use, if it is proven. Also, it involves a number of events and activities which entail change of the initial products, if it is proven that such a thing is needed.

It can be concluded that the innovation is the main feature of the entrepreneurial process. Innovation is still linked to the changes, and it is known that entrepreneurs are considered as agents of change.

3. The impact of the working environment on the creation of innovation

From the forgoing it is obvious that the process of creativity is a mental process in which acquired experiences are combined and recombined in a way that resulting the creations on new models and configuration that can significantly help to better meet the human needs.⁶

⁴ Muljadi, P., (2002) *Innovation Creativity Technics*, p. 55.

⁵ Nieuwenhuizen, C., (2008) Second edition *Entrepreneurial skills*, Juta and Co Ltd., Cape Town, p. 189.

⁶ Thierauf, R.J., (2001) *Effective business intelligence systems*, Greenwood Publishing Group, p. 41.

But, also the established process indicates the existence of specific conditions for its development.

One of the important components for the development of creative thinking among employees is having the right kind of work environment that will allow enough freedom and will give the necessary settings for the development of the innovation of employees.

If the working environment is seen as a setting in which the working performance is manifested, it appears that it should be rich with numerous properties that favour the set objectives. In this sense we can't categorize a good or bad working environment, but we can select it as suitable or unsuitable depending on the set business objectives. In the case of innovation, considering the properties of the process of innovation, it can be concluded that desirable and beneficial working environment will be the one that allows maximum expressing of the creative nature of the individual.

Regardless if it is the individuals within the organization or established innovative teams, it must be noted that the idea of establishing the routine towards the work, and respect for previously established rules within the company or innovation teams, is impossible and unnatural. This is primarily due to the fact that innovation does not mean accepting a certain amount of information and following a linear set of rules and measures, on the contrary, it is a dynamic process of progressive learning, adaptation and overcoming obstacles and conditions. The work environment, which is related with the creating of innovation, is visibly different from stable and routine work environment.⁷ (Table 1)

Table 1- Differences between stable and innovative work environment

<i>Features of a stable work environment</i>	<i>Features of innovative work environment</i>
predictable	unpredictable
routine	non-routine
established order	chaos
planning	constant learning
continuity	discontinuity
efficiency	creativity

Source: Harris, C. (2003) *Building Innovative Teams*, Palgrave Macmillan, p. 22

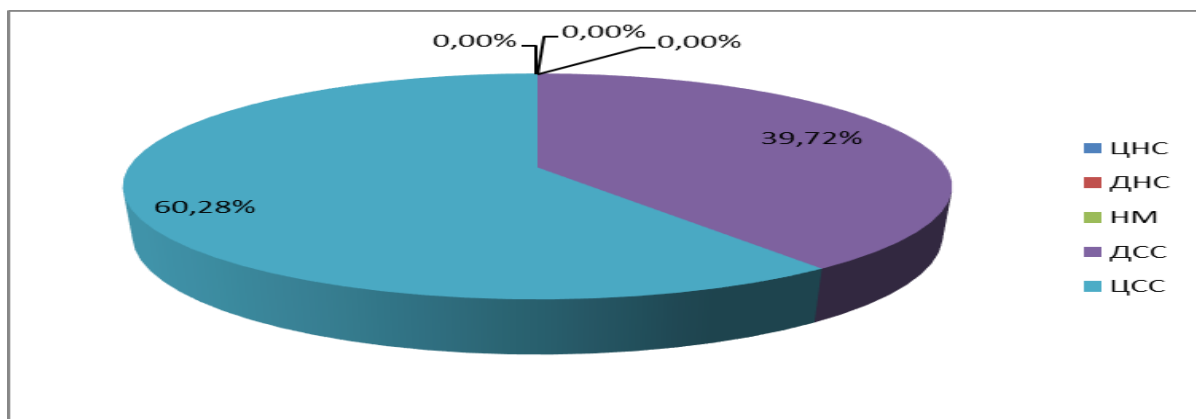
From Table 1 it can be seen that the greatest enemy of innovation is the stable working environment. Order, pre-planned and predictable action, undisturbed continuity and routine are features that hold down the attempts to create new and fresh ideas, different from the established ones. Unlike the stable, the features of the innovative work environment include mastery of a certain chaos in terms of not complying with the strictly defined rules and orders, action is under current beliefs and often take an unpredictable turn of events is present, such dynamic requires constant learning and mental engagement of employees that in the end results with original solutions.

⁷ Harris, C. (2003) *Building Innovative Teams*, Palgrave Macmillan, p. 21.

4. The type of work environment in companies in Macedonia

What is the state of innovation in companies in Macedonia? Is there a connection between the working environment and innovation in Macedonian companies? Whether working environment emerges as her supporter? These on are the questions whose answers should offer the survey conducted in 31 companies in Macedonia. This is about the companies that according to their own perception consider themselves innovative in the area of creating new products or improving the existing ones, and they differ only in the degree of innovation – some more and some are less innovative, as it can be seen from graph 1.

Graph 1 - Perception of the surveyed companies about their own innovation



Source: Own survey⁸

As an independent variable in the research appears the *work environment*, which is contained by the following features: non-routine, unpredictable, need for continuous learning, disrespect of strictly determined order and schedule etc. While as a dependent variable is *innovation* of enterprises measured by the perception of the respondents in terms of more superior measures that provide a broad estimate on the set problems from several aspects. The profitability is a real indicator of the success of the enterprise, a picture of economic results that achieve the same on the basis of realized innovation. While the other questions give us information for the competitive position of the enterprise built on innovation compared to existing competitors, potential competitors, possible substitutes, consumers satisfactions and so on, in accordance with the five forces of competition proposed by Michael Porter in his model.

The proposed hypothesis is:

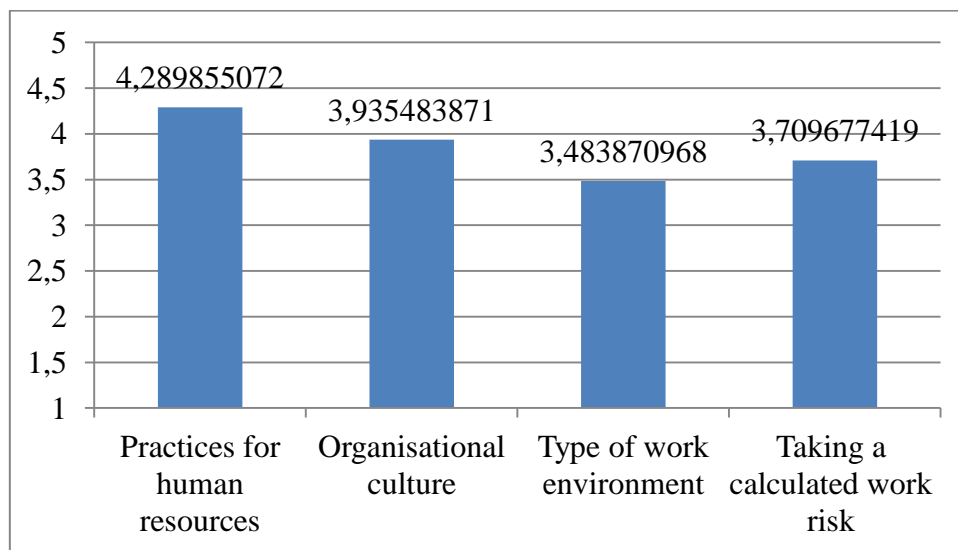
“The type of work environment affects innovation as a sustainable competitive advantage of the enterprises.”

The results from the survey may indicate that among other segments covered in the research that have an impact on the development of intrapreneurship and innovation (management of human resources, work environment, the attitude towards risk taking,

⁸ Meaning: FD – fully disagree, PD – partially disagree, HNO – have no opinion, PA – partially agree and FA – fully agree

organizational culture, were also part of the research) the work environment is evaluated with the lowest grades. (Graph 2)

Graph 2- Evaluation of individual aspects that influence the development of intrapreneurship in the organization



Source: Developed by the author based on data from the survey

Also, the conducted testing of the hypothesis (Chi-square test) shows the connection between the type of work environment, established in the surveyed companies and the results in the field of their innovation, is absent. Or, if we follow the obtained results from testing the hypothesis: Chi-square value is 53,417, and the probability of Chi-square test is 0,274 i.e. is greater than the alpha significance level of 0.05, we can conclude that the set hypothesis **is rejected**.

5. Conclusion

The obtained results from the conducted research, the respondent's answers and the results from the testing of the hypothesis, clearly point to the conclusion that the companies in Macedonia lack the clear distinction of the type of work environment that would be in favour of innovation.

If we reference to the official data available for innovation in Macedonia, we can notice that according to the latest data from the State Statistical Office (Table 2) 36% of Macedonian companies consider themselves as innovative. If we follow statistics of expenditure for this

purpose, or in other words the part that most enterprises invest in order to strengthen their own innovation, you can see that 41.6% of expenses are for purchasing equipment, machines and software, and only 2.1% are investments in internal research and development.⁹

Table 2- Expenses of innovation activities in 2014

Expenses of innovation activities	Percentage
Internal research and development	2,1 %
External research and development	10,7 %
Purchasing equipment, machines and software and buildings	41,6 %
Gaining knowledge from other enterprises	1,5 %
Other expenses	44,1 %

Source: State Statistical Office of Macedonia, *Statement – Innovative Businesses 2012 – 2014*, Year LIV, No: 2.1.16.20 from 01.06.2016

Such distribution of funds, once again reveals the failure of enterprises in Macedonia to base innovation on their own resources, in terms of internal empowerment through development of strategic management of human resources, establishing an appropriate creative work environment, greater investments in own research and product development etc. As for the type of work environment appropriate for development of creativity and innovation within the enterprise, it can be noted that the managers in companies in Macedonia still aren't ready to retreat the necessary freedom of employees in favour of innovation. They prefer stability, order, continuity and predictability which currently gives a type of security, but in terms of creating a sustainable competitive advantage such long-term policy is disastrous for enterprises, especially in the part of development founded on innovation.

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⁹ State Statistical Office of Macedonia, *Statement – Innovative Businesses 2012 – 2014*, Year LIV, No: 2.1.16.20 from 01.06.2016

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