

FINANCING OF THE INNOVATIONS IN FUNCTION TO THE COMPETITIVENESS OF THE COMPANIES AND THE NATIONAL ECONOMY

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Abstract

There is no doubt that the creation of an innovation is an essential driver of the competitiveness and the economic growth in all economies. This process, at the company level, is important, because it allows to improve the competitiveness of the company, to improve the business processes, performance etc. Considering the fact that Republic of Macedonia as for research and development compared to its GDP separates eight times less than most countries – EU members, then the need for taking action in this area is more than necessary.

Key words: competitiveness, entrepreneurship, financing, innovation.

Introduction

In the scientific thought and the various papers of many national, regional and international organizations many definitions are given about what the innovations actually represent, that is why it is more than certain that

any attempt to give a specific definition for them will cause a multitude of reactions by the scientific thought and by the business people. However, from all of these definitions can be concluded that the innovation essentially contains an implementation of new or significantly improved product, new organization in the work practices, in the labor relations, a new marketing method or process. Having the structure of the innovation in mind it can be concluded that they cover a wide range of activities that are in function of the productivity and the competitiveness of the companies, so for the innovation can be said that it represents something more than just a regular research and development of the processes.

If we keep in mind that all the previous governments in Republic of Macedonia in their economic programs forecast are directed towards providing economic growth, it should be pointed out that in order to realize that goal a series of measures and actions is needed for providing conditions for development of the competitiveness in the private sector, i.e., the national economy as a whole. Currently, the Republic of Macedonia is building its competitiveness on the low wage costs, something that in the long term may not be sustainable. Therefore, ensuring the competitiveness of the real sector through knowledge and innovation is a key measure that should be taken into account if the goal is to increase the level of competitiveness and provide higher rates of economic growth.

1. The European Union and the innovation

Without the intention to elaborate the policy of the European Union towards the innovation, only briefly we will discuss about the EU Strategy for innovation, i.e. the definition of the strategic approach to the innovation. Namely, through this strategy the level of research and innovation in Europe is raising, which enables the inventive ideas and discoveries to reach the market in implementing form much sooner.

Europe 2020 is a strategy for growth in Europe for the next decade. In the changing world, in which we live, the EU intends to become a well-designed, sustainable and inclusive economy. These three priorities that are mutually complementing and strengthening each other need help the EU and its member states to achieve a high level of employment, productivity and social cohesion.

The research and innovation are holding the high place on the EU agenda for growth and job creation. The Member States are encouraged to invest 3% of their GDP in research and development by 2020. The structure of this investment would be 1% public funding and 2% investment by the private sector. The purpose of this investment is to create conditions for creating

the predicted 3.7 million jobs and to increase the annual GDP by almost 800 billion euros.

2. Conditions and measures for increasing the innovation in the Macedonian economy

According to the suggestions and appeals that come from the business sector, that are addressed to the competent authorities for assistance in the field of the innovation, it can be concluded that the available resources for the companies for development of the innovation are very limited and very low. So if the intention is to change the situation in this area it is necessary to start with transformation of the economic processes in order to create a knowledge-based economy and an economy that will be able to cope with the competition in the international markets, primarily through employment of educated and trained working staff, and companies that are implementing the innovative ideas. Relatively large number of indicators for the success in the work of the companies, are showing positive connection with the innovation activities of the companies. It is undisputed that the companies that innovate are more likely to go to the international markets thus increasing the economic success.

The companies are connecting the relatively low level of implementation of the innovation activities in the real sector, the companies with the high costs for innovation and the limited access for financing, whether it is through bank loans or with other means. Other reasons that the companies cite for the negative trends is the market demand for innovative goods, the market strength of the companies, the low level of cooperation with higher education etc.

The technology, which is in use, is quite outdated, the funds and the investments are insignificant part in the technical and technological modernization of the domestic companies and the lack of almost any investment in the research and development is one of the most important moments, because the production of the Macedonian companies into the foreign markets is very uncompetitive. Nevertheless, as this subject until a short time ago was very little exploited, the business sector does not miss to point out that the modern technology and the innovation are among the key factors for the quality and competitiveness of the products. However, is not enough just to purchase an expensive and sophisticated technology to improve the competitiveness, but it is also necessary to have an appropriate professional staff, who not only need to have an adequate education, but also should be constantly improved and trained. But the question is how can all these detected weaknesses be overcome by allocating 0,2% of the national in-

come of the country for research and development, and in that percentage is the insignificant participation of the business sector.

According to the market situation the conclusion that prevails is that there is little interest for implementation of the innovations in the companies. In fact, according to a survey by the National Center for the Development of Innovation and Entrepreneurial Learning, conducted among more than 2,000 Macedonian companies, it was found that between 2007 and 2009 only 18% of the companies have introduced a new or significantly improved product or service. That's why the experts are locating the problem into the lack of awareness for innovation and their importance for the economic development. This conclusion is supported and with the utterly ignorant attitude of the companies towards European CIP – Programme for Competitiveness and Innovation that can be seen through the fact that none of the companies have applied to the calls for application for this program (The Framework Programme for Competitiveness and Innovation – provides support to the measures for strengthening the competitiveness and the capacity for innovation in the European Union. In particular it encourages the use of information technologies, technologies for environmental protection and renewable energy).

In addition to the thesis that the technology is not only the main culprit for the poor competitiveness of the Macedonian companies, but also the professional staff has its role, speaks the fact that only 5% of the scientific researchers in Macedonia are working in the private sector.

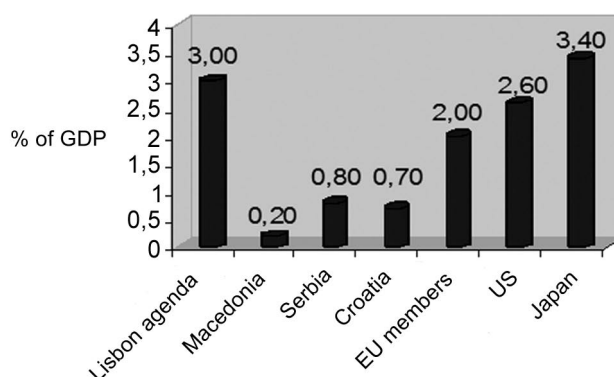
In the region of Bulgaria in the companies there are engaged 13% of the researchers, in Croatia 16,4%, in Romania 32,5% and in Slovenia 43,5%. Worse data than Macedonia in this area has Serbia with only 1,2% of researchers that are working in companies. In Macedonia, most of the researchers are employed in the educational and scientific institutions – 51% and in the government institutions 43,5%. Macedonia is also in the last place according to the cost for research and development per capita, or 16,1 dollars versus the 159 dollars in Croatia, 162,1 dollar in Greece and even 4,645 dollars in Slovenia. Also, no better is the data in terms of the number of granted patents per million citizens per year for the period 2002 to 2006 and that number in Macedonia is 0,1, in Croatia is 2,45 and in Slovenia is 9,4 (Capital, 2014).

These facts and all the relevant reports and analyzes that have been made in recent years indicate that although the Macedonian companies have ideas they rarely implemented them in practice.

In order to improve the things in this area, of course it is necessary to build an appropriate legislative and institutional infrastructure taking into account initial steps that have been taken with the establishment of the legal

framework and the establishment of a Innovation Fund. But, the question is whether the existing budget of the Fund and the allocation of the GDP to research and development is enough to make a shift from the current level of the innovation activities. If we value the given data about the percentage of the GDP on research and development that is made by the member states of the European Union, U.S. and Japan, it seems that Macedonia will be behind these countries for a long time in the field of innovations and thus the improving of the competitiveness of the Macedonian companies will have to wait for better times (see Figure 1).

Figure 1. Overview of the percentage of the GDP on research and development



Source: http://kapital.com.mk/mk/prilozi_edicii.aspx/96966/kakov_model_na_inovativnost___e_potreben_na_makedonija_.aspx?ild=3226

From the graph we can see that although the members of the European Union in average allocate 2% of the GDP in research and science, they tend to increase this amount to 3% in accordance with the Lisbon agenda. Although Slovenia is mentioned as one of the countries that allocates a significant portion of its GDP for research and development, in the European Union, there are countries that are allocating more, like: Austria, Germany, Denmark, Sweden and most of them like for example Finland, which allocates up to 3,8% from its GDP, while the Republic of Macedonia, as previously noted is significantly lagging with the allocations for this purpose, as it can be seen from the following table:

Table 1.

Year	2008	2009	2010	2011
Research and development as % from the GDP	0,23	0,20	0,22	0,24

It is undisputed that for a successful use of the new ideas to follow a lot of funds is needed and thus its use on the other side is crucial for a business to develop its processes, to offer improved products and services on the market, to increase its efficiency and certainly to facilitate during the achievement of the goal, which is to increase the profitability of the company. It is therefore important that the companies should continue to invest in the innovations, even in periods when the business is in crisis, so they can be more competitive when the situation in this area will improve. Regardless of whether they are local, regional, national or global, the markets are becoming more competitive and the competition is tougher as a result of the increased access to new technologies and the increased opportunities that are offered by the development of information and communication technology or the Internet.

The most bitter issue that the entrepreneurs or business sector are facing, certainly is the funding of the innovation. The theory and the practice to the innovative people are offering numerous ways for coming up with funds to develop their businesses through innovation. In general, the business people can provide for themselves the financing, or they can use external sources of funding. Providing the right type of financing is the key moment to deliver the innovation and to achieve greater development. However, whatever they choose to obtain the external financing, it assumes that there is a high quality business plan that contains sufficient information for the business while on defining the direction, in which the business is planned to grow.

3. Institutional funding of the innovation in Republic of Macedonia

One of the opportunities that are available to the businesses in Macedonia for financing the innovative businesses is the use of the funds from the Innovation Financing Vehicle (Innovation Financing Vehicle) funded by USAID (an U.S. Agency for International Development) and Crimson Capital Corporation. The Fund is specialized and designed to support the innovation in the companies in Macedonia through financing and crediting the equity. The actual funding is on a commercial basis. Clients of the fund may be domestic companies that will offer sustainable innovative product or service for which there is a defined market demand. It is especially important that the innovation has to have potential development, and encourage the sustainable development and creating new jobs. Each potential client must have financially and commercially sound product or service that will clearly fulfill the needs of the market on competitive basis. Also they need to present credible projection of the cash flow, and thus a clear strategy

for the debt repayment, whether that is through profitability and liquidity, or with use of other means for closing the debt in the period from 12 to 24 months. This fund during the funding provides advantage to the innovative businesses that are creating jobs, which is completely justified because only by creating new jobs it can spur an economic growth.

In this direction the Government of Republic of Macedonia acts to establish the Fund for innovation and technological development, that aims at encouraging and funding the innovation and support to the business sector. The goal is planned to be accomplished by providing technical assistance and consultancy services for the newly registered and existing companies, to increase the investment in innovation, financing and co-financing of research and innovation projects of the companies, commercialization of the knowledge and science etc.

For improving the conditions in the field of innovation Macedonia is awarded with financial assistance from the World Bank in the amount of 24 million USD to support the development of the skills and the innovation.

However, although an institutional infrastructure is established and some funding are provided, we can not discuss that there are greater innovation activities, i.e. innovation that will increase the productivity, or introduction to new products and with that the competitiveness of the companies will increase. The reasons for this are how the funds are distributing or for what they are used. For example we will mention the grant from the World Bank, that was meant to be used in the field of education, preparation of new curricula and improvement to the conditions for practical training, management training, planning and process improvement, and reforms for funding the higher education. Very few of these funds were used for the real research, to fund the real innovation, something that is palpable in the production process, something that can create added value. Most of the funds are spend unproductive and not for its purpose.

Therefore, during investing in the innovation processes, it should be started from the possibility how much the innovation is profitable, or how it can contribute to the growth, competitiveness, creating new jobs and ultimately to improve the standard of living of the population. Therefore, the contribution of the innovation could significantly increase if the innovative talents of the individuals and the available funds are allocated to more fundamental research or applied research that could lead to new products.

Although, perhaps there is not much in common with the research topics, in this section we want to mention the ability of the companies in Republic of Macedonia to introduce the innovations in terms of the number of employees in them. The total of 71,290 registered companies in Macedonia, 60,599 have 1 to 9 employees, or 85% of the companies. The question is how

a company with such scarce human resources can innovate their processes, and to develop such organizational structure that will enable some of the employees to engage in innovative activities, and the rest can financially bear that. On the other hand, only 25,429 companies of the total number of companies in Macedonia are from the sectors wholesale and retail trade, repair of motor vehicles and motorcycles. That is 35,7% of the total number of companies (State Statistical Office). What are the opportunities for innovative activities in these companies, that would allow economic growth (not just moving of the profits).

On the other hand, in its policies the Government stands for a work force that will have specialized knowledge and skills sufficient to initiate innovative activities, and in practice things are not as they are displayed, mainly because of the policies in higher education that have led to 98% of the secondary school graduates to enroll into college. And it would not be so bad if most of them do not study humanity science. Interestingly, the observation of one of the authors of this paper on the structure of the classes in one of the high schools in Macedonia, where from the 7 classes that are in the final year, only 6 are from socially – humanist, and only one from general direction. The data speak for itself enough about what can we expect from this staff. Another question is how this educational policy can provide the necessary staff, which would be especially innovative in the advertised technological – industrial development zones, where foreign investors who would be drivers of the economic growth in the Macedonian economy and creators of new jobs are expected to come.

On the spending of the funds and investment in the innovation activities the companies should not be seen as unnecessary expenditure but as an investment, because the practice has shown that the companies that are bringing innovation almost always provide increasing of their profits. Also, the business sector should bear in mind that if they do not invest in the innovative activities, the risk of losing their competitive ability will be at a very high level.

As a good measure of improvement in this area are the tax and customs incentives for the innovative companies, or incentives for the importation of the equipment that helps to establish innovative processes.

Although, the institutional infrastructure and the Government policies can contribute greatly to the implementation of the innovations, however, to realize that it is necessary to come to the creativity of the individuals during their action in the innovation processes. Therefore, educational policies are necessary to be provided at all levels that will prepare the individuals for the job market, i.e. providing skills that will enable the businesses to grow into competitive and innovative market participants. In this respect an

adaptation of educational policies is needed in order to develop the skills that are necessary for creating the innovation, to provide the quality vocational training and to develop the concept of lifelong learning.

Conclusions

In the scientific thought and practice there is the same opinion that the creation of the innovation is essential for increasing the competitiveness of the companies and the economic growth in all national economies. On the other hand, this process for the company has a special significance, because only such processes will enable the companies to improve their competitiveness through the creation of new products, improvement of the existing products, improving the business processes, efficiency etc.

Considering the fact that the Republic of Macedonia for research and development in relation to its GDP allocates even 10 times less than most countries of the European Union, then the need to take action in this area is more than necessary. Also the situation with the allocated funds for innovation is very unfair, because about 95% of the allocations have been invested in projects outside the private sector and those are non-commercial initiatives that are not initiated by meeting the needs of the market, which causes the economic recovery for the businesses and for the wider economy to be limited.

Therefore, the experience of the innovators from the private sector in Macedonia indicates a lack of capacity, knowledge, resources for development and commercialization of the innovations. Hence, it should be taken into account that the generally accepted benefits of the innovation, primarily through increasing the investments in research and development in the private sector will lead to creation of the new jobs and certainly better positioning of the Macedonian companies in the global market, which ultimately is the goal of any economic policy. Therefore, the Republic of Macedonia can not afford not to invest in research and development, because it will fall back in the economic development, far behind the other European countries.

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