

The Knowledge Economy – a Chance for a Lasting Economical Growth After the Crisis

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Abstract

The financial and economic global system was changed due to the world economic financial crisis that affected most of the countries. Crisis is a process of transformation where the old system can no longer be maintained. Therefore, the cause of a crisis is the need for change. A solution for the actual financial crisis can be the knowledge economy. But knowledge has no resilience. If we fear for the security of the supply chains for food and energy, how much more should we be nervous about our knowledge? Not only is it floating free of any relationship with the real world, it is also stored on highly transient media. The research- development-innovation activity could bring a solution for the ending of the crisis and developing the knowledge economy that will save the economy.

Key words: research, development, innovation, knowledge, education, competitiveness.

JEL Classification: B52, G01, O39, Q01

1. Introduction

The economic and financial crisis that started in the second half of 2008 affected most of the world's states, except the poorest ones and generated processes able to change the economic and financial global system.

Thus, according to the World Bank, the world PGB decreased in 2009 by 2,2%, the world trade volume by 14,4%. According to United Nations Trade and Development Commission the direct foreign investments decreased in 2009 by 38,7%, comparing with

2008, from 1,69 to US \$ 1,04 bil.

The fall was most pronounced in countries with developed economy, by 41.2% , in countries with the emergent economy, by 35% and countries with economies in transition, by 39%.

Those listed above have made the World Economic Forum in Davos this year to discuss about the need for tougher controls and extensive state interventions in the economic processes of post-crisis, about the impossibility of a fast recovery of the economic growth rhythms from pre-crisis and that straightened out the economy will be a long, slow and difficult process.

In the situation, acquires special importance to find new solutions for insure the economic growth lastingness and, certainly, they will be found by production and assimilation of new knowledge.

2. Solutions to ensure sustainability of economic growth

Remember the fact that economic competitiveness, social inclusion and environmental protection were identified as pillars of the Lisbon Strategy, which proved that the sustainable development should form the foundation of all European policies. Even tough some of the settled objectives at Lisbon proved to be too ambitious, even for the states with a developed economy, it's obvious that promoting the research-development-innovation and the foundations of an information-based society, together with education remains a prerequisite for all world states, including the Republic Moldavia.

To note that science, technology, innovation, use of knowledge, so far over time, have played an important role and have made their contribution to social and economic development, supported the general economic progress.

Meanwhile, the contemporary society becomes more and more based on knowledge and information, a society of global civilization, the information becoming, in fact, a strategic and fundamental resource, alike the capital for the industrial society and with a total impact on developing and with a decisive impact on the development and prosperity of any nation. In most economically developed societies, intensive use of knowledge is recognized as the main factor of progress.

The Japanese were the first to have understood this, nationwide. Toshivo Doko, considered a “king of Japanese success”, declared since the late 60s: “We have no natural resources or military power. We have only one resource: our brains capacity for invention. It is unlimited and we must show it. We need to educate, to specialize, to equip. This power of the mind through the power of things will become, in the near future, the most precious common good, the most creator of all mankind” [1].

With the launch of the Lisbon Strategy, it became obvious the desire to clarify the content and these objectives, including from the scientific point of view, the research - development – innovation studies were intensified.

However, so far it hasn’t been developed and completed a theory of this process, and there are several names of this phenomenon, such as post-industrial society, post-capitalist society, information society, digital economy, new economy, society based on knowledge and information, knowledge based economy, etc.

3. Old economy and new economy

There are different ways through its tried to identify those changes that happened and continue to occur worldwide in the context of scientific and technical progress, globalization, innovation, sustainable development, etc.

In these conditions, together with traditional factors, knowledge is necessary as a factor with a major role in economic progress and the ability of a country to benefit from the gained knowledge is crucial

to the success of that state economy.

The transition from the industrial society to the next phase of economic development does not mean that after the age of industry, there will be no industry. Old economy and new economy coexist side by side.

Nobel laureate in economics Joseph E. Stiglitz estimates that the new “digital” economy has, yet less than 10% of the U.S. economy. New industry becomes an automatized one, robotic, cybernetized and computerized [2].

4. Competitiveness of on economy

Speaking about the main features of the knowledge economy in the context of developing the competitiveness, usually the following are mentioned:

- there is a movement from homogeneity to extreme heterogeneity of products in order to meet the specific needs of some market niches;
- an enterprise from the knowledge economy is largely determined by its ability to acquire, disseminate and exploit knowledge and information;
- the role of creative labor and employment flexibility in the employment field increases;
- the importance of the economy on scale and the high economic value of „small scale” decrease as a competitive advantage;
- the importance of decentralization of decision-making, creativity and flexibility in business increases;
- need for greater processing capacity information and better coordination of business systems;
- continuous exchange of information to promote business partnerships;
- the importance of time (speed) as a factor of competitiveness increases, given that competition between firms increasingly rely on time and speed of reaction;

Whether they’re big or small, strong or weak, countries are equal in front of the new rules of the international economic exchanges game. We must recognize, in this context that the theory of competitiveness and of the competitive advantages were developed on the basis of the experience of large economies (states) and on quite different economic situations.

Economic globalization, open economies, strong foreign competition has made the traditional sources of benefits like uptake of existing technologies, mass production of scale generating economy, domination of large enterprises in the industry, stable sales markets to lose their seasonableness and efficiency. This offers new opportunities and small economies, as it is the Republic of Moldavia.

I must admit here, that most of our economy continues to rely on extensive use of production factors. New technologies are mainly assimilated by imports and foreign investments.

There is a part of the economy can be considered as belonging to an investments based economy, and appears the emergence of the economy based on innovation, especially in information and communications technologies, an area with high competitive potential.

In this context, the Republic of Moldavia continues to present serious gaps in competitiveness compared with the absolute majority of European countries, at the level of all elements that determine the competitive ability and the largest gap occurs in the first place, in terms of innovation and research - development, the information society field.

In this context, to be competitive, an economy must be based on educated and skilled population, a developed information infrastructure an innovative and effective economic and institutional system that could support what was indicated above.

Hence, in a situation of increasing the economic competitiveness is a priority the goal of developing an innovative economy must be also a priority.

More so, as the investigation and analysis that we conducted showed a real correlation between the degree of innovation of economy and gross domestic product per capita or national productivity, in the sense that the value of these indicators increases with the appreciating of the innovation degree of the economy.

The states with a higher share of R & D expenditure in GDP have also a better position in global competitiveness rankings, which determines the need for greater investment in this area.

We must admit here that during the last years the expenses for research and development have been and continue

growing in the Republic of Moldavia, both in absolute terms and in relation to GDP. And this is to appreciate.

And even though for this chapter, we have to recover significant differences compared with developed European countries, the big problem for the Republic of Moldavia is that the largest share in research & development expenditure (the personnel involved in research & development) continues to go to budgetary resources (public sector), a very light involvement of the private sector in this area was recorded, absolutely contrary to the one established trend in Europe and worldwide.

The lack of private research (in enterprises) stops development of demand in the research market, that there is no need for assimilation of the research results.

Increasing involvement of private sector in the research- development-innovation activity can be achieved through state support, including by grants, subsidies or tax credits.

Let us remember that the European Union makes efforts to catch the large advance over the United States and Japan, beginning with research and development field.

Lisbon strategy review in 2005 confirmed the target settled at Barcelona of giving 3% of GDP for R & D by 2010, but from it: 1% must go to public expenses and other 2% for public sector.

5. Instruments used in the innovation field

There are more important instruments that can be used by EU in the innovation field, instruments that can be also useful for the Republic of Moldavia:

- Creating the European Institute of Technology, its first projects aimed the measures meeting climate changes and development of EU energy policy.
- Creating clusters, including the fact that economic performance is influenced by the ability to cooperate in innovative activity. Although clusters are usually economic agglomerations formed spontaneously in a well defined geographical area, the state can encourage their forming, especially when they are organized around knowledge centers (universities or research institutes).

- The proposals for initiatives are preparing to develop areas with high potential for economic development and social value. (For the Republic of Moldavia these could be Balti town, which has a well developed infrastructure, partially preserved industrial potential, qualified workforce, Ungheni town - near the borders of the European Union and the city of Iași; Cahul town - Galati proximity and Giurgiulesti port).
- It seeks to promote innovation not only in the productive industry but also in services field, following the creation of the first innovative incubators in the services domain.
- Actions are taken to improve the European System of Standardization.
- The promotion of public-private partnership increases on issues such as green industry and eco-innovation, cluster policy, innovation services, and for sure innovative SMEs.

It can be mentioned that knowledge production can be considered as a new activity field, or, as the result of human activities, research and innovation, and having a market value, knowledge, like any economic good can and must be sold in the market.

As buyers can be both private companies and the state, as representative of the interests and social needs. Obviously this will approach the issue of free access to knowledge and will require the development new economic theories, new research funding schemes, new problems related to the accounting of intangible assets, etc.

Knowing not means only the production of goods that includes a large amount of science and technology, but also improving the existing products, the ability to obtain in real time information about markets, distribution channels, consumer preferences, finding new groups of customers or entrance on new markets, the importance of trademarks - are new tasks in the science of marketing, not to mention the fact that even the research-development-innovation must be organized on customer's needs.

This imposes the need to promote collaborations and partnerships between economy and science; irrespective of funding source and implement marketing function involves just research orientation towards the needs of potential customers, adapting the

activity of research institutions to market needs.

6. Knowledge economy

Knowledge - based economy implies a greater role of universities in society.

First, universities must review their mission, which, in addition to providing learning and personnel, consider activation of research and commercial activities of product research to become more active in transferring knowledge and technology.

Similarly, universities must recognize that the XXI century student is different from the student of previous generations.

He requires partnerships with teachers, interactive training methods, and online student-teacher communication systems.

He must build the ability to understand and accept cultural differences, think critically, to approach problems from a global perspective, to work in cooperation, to be able to change their lifestyle and consumer habits and to ensure also the environment protection etc.

Universities need to recognize the fact that education has no borders. It becomes transnational.

That is why it is necessary and universities need to promote global innovative universities that need two things: more autonomy and more money, meaning a better financing.

7. Concluding remarks

In conclusion, we can mention:

- Building the society based on knowledge has become a reasonable goal for all world states, including the Republic of Moldavia. This is now the only way to competitiveness and economic prosperity.
- The Republic of Moldavia needs to establish a favorable business environment for innovation and a clear and realistic approach, which could start from stimulating the activities of research-development-innovation.
- It requires a systemic approach to innovation in the context of relations and interests of all actors participating to this process: universities, research institutions, donors and, not least the state.
- Like, maybe, in a short while, for the Republic of Moldavia is more important the

acquisition of technology in relation to the creation of technology, in terms of accelerated growth of productivity.

In this context, it becomes important promoting scientific and technological cooperation with large transnational companies (domestic and foreign), which would provide access to advanced research and high technology.

Innovation process in the Republic of Moldavia will be successful only if new knowledge will be used in economy and will be assimilated by the enterprises.

From this perspective, the reason to support research-development-innovation must be the economic effect established on the basis of efficiency and cost analysis.

Talking about the effective integration of

our research in the European research area, becomes important to find our place and role in European scientific research, our niche European market of research-development-innovation.

In this context, it is necessary to identify priority areas where research should be focused on research-development-innovation, which could provide a competitive advantage on the European market research.

8. References

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