



THE IMPACT OF INNOVATION ON ORGANIZATIONAL EFFECTIVENESS IN THE CONTEXT OF KNOWLEDGE-BASED ECONOMY

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Abstract *Of the three elements that form the so-called "knowledge triangle" of education, research, innovation, the third is the element with the greatest impact on welfare and also the most problematic in terms of the related policies. Innovation requires knowing the market trends and even anticipates them and at the same time requires quick reaction to change and flexibility for change. The basis for a viable innovation strategy is the combination of firms, participation in networks, alliances and collaborations to reduce costs ever higher of technology transfer. This paper aims to present some aspects related to innovation approaches in the knowledge-based economy and the mechanisms or elements of the innovation process in organizations. The paper also suggests a possible solution to promote innovation process in organizations through the clustering process, showing the advantages of this form of association for organizations.*

Key words:

Knowledge-based economy, innovation process, organization, knowledge triangle, cluster

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1. Introduction

We are experiencing a period of transition from an economy predominantly based on material resources to the knowledge-based economy. In this new type of economy the strategic role return to intangible intellectual resources, to knowledge acquired and their use and not to material factors of production.

Therefore, we can say with certainty that we live in an information society in which the knowledge has become the essential factor of production, the key element of economic competitiveness at the organizational level, national and global level.

Currently, the countries of the world and most organizations are aware that the generation and exploitation of knowledge are essential factors, vital sources of global wealth growth. Consequently, a major concern for both organizations and for countries, especially the developed ones, is the systematic generation of knowledge through the development of the national and international interactions, more sophisticated.

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2. The innovation approaches in the context of knowledge-based economy

All experts agree that innovation is a complex process with many variables, which is based on collaboration between research and industry. To help improve well-being, developed countries have sought solutions, proposing forms of interaction and collaboration more complex in order to create bridges between the two sectors and allocated in this regard, public finance more substantial.

The entities and individuals who reach the level of excellence become extremely valuable, having the ability to attract resources and influence both the scientific and socio-economic systems. This is the reason why developed countries are making efforts to attract scientists and engineers with outstanding performance and also to reach a critical mass of research in strategic areas.

Universities, public research and development institutes, and other research entities are challenged to turn into major players on the knowledge market, attracting and developing human resources and focusing peak major research facilities. Involvement in research and increasingly close ties with the business have not only become additional sources of income, but the intrinsic elements of the process of education and training.

Innovation requires knowing the market trends and even anticipate them and at the same time requires quick reaction to change and flexibility for change.

Michael Porter has shown in his book *"The competitive advantage of nations"*, that in order to explain the economic success of a country or region is not sufficient to use the classical theory of production factors. This success depends on a complex interaction of factors which later were grouped in the so-called "The Porter's Diamond": demand, business strategy and competition, factors of production, supply chains and horizontal integration. (Porter, 1990).

We all agree that innovation is now a sine qua non condition for economic success and for maintaining market businesses. Much time and unfortunately still today, innovation has been seen as a linear process: invention - prototype - testing - mass production - market. This model, which attracts by its simplicity, nowadays seems outdated. Innovation is considered today a complex, nonlinear and systemic process,

based on the interaction of actors in innovation systems. Essential contributions to the innovation system approach have had Lundvall (1992), Nelson (1993) and more recently, Guth (2004).

The "New Diamond of Innovation" Model was developed by Guth, M. (2004), taking into consideration "the competitive advantage theory" of Porter (1990).

This new model is based on the individual and institutional learning concept. The individual and institutional learning may take place if it is set as a common set of norms, rules and principles. Innovation process is based on scientific knowledge, supported by a modern infrastructure. Also, the model shows that the technological transfer processes and innovation cannot take place in a polarized economic and social environment. A condition for the implementation of the innovative processes is represented by the economic and social cohesion.

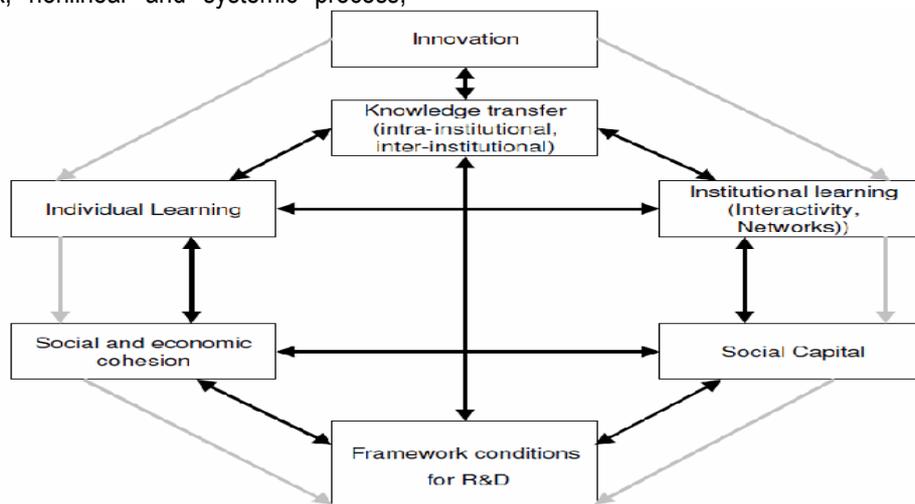


Figure 1. The "New Diamond of Innovation" Model

Source: Guth, M. (2004)

3. The elements of innovation process within organization

As shown in the works of M. Porter, a system of innovation in an organization involves providing fundamental mechanisms (Porter, 1998), (Porter, 2005).

The first mechanism involves the creation of processes and methodologies that allow a company to generate new ideas in a manner that ensures continuity, consistency, generality.

It assumes also validate those ideas in the sense of selecting the best employees and improve their creative capacity.

This mechanism is the basis of the whole system of innovation. Thanks to him, the system generates the flow of ideas both for employees and that of consumers. Because employees can think and act creatively, innovative organization must provide them with the necessary tools: techniques for generating new ideas facilitate group projects, creating online and offline collaborative environments, etc.

The second mechanism gives an organization the opportunity to build a strategic plan for the innovation. It provides for employees involved in innovation, a guide and a clear vision of what items are really important to the organization (a new design of basic operations, reinventing the brand etc.)

The elements of a business model (product philosophy, customer needs, delivery time, value, etc.) can be used to prioritize the most significant details of the innovation strategy. A good business model is essential to determine how competitive an organization can become in the market. The model is more competitive, the challenges of time that this will bear fruit will grow.

Companies will have to evaluate which parts of which means their business model no longer works. At this stage the alternatives that involve innovation will certainly be taken into account.

Systematizing innovation is another fundamental mechanism of this process. The purpose of this mechanism is to measure the quality of the innovation process. Systematization involves not only quantitative issues and qualitative elements (innovation capacity in the organization, the relationship between knowledge and creative etc.).

Matching of systematizing innovation and what this implies at the conceptual level, is a challenge level of knowledge. If it fails, then the novelty can not occur. Many specialists highlight this imperative when it comes to the reasons why organizations very well endowed in all respects, are not successful in terms of innovation. Moreover, companies that fail in this regard are not the biggest but rather better systematize those new to the detriment of bureaucracy.

The fourth element of innovation involves all activities related to self-awareness, internal communication and other activities aimed at keeping employees in the innovation process.

Through consistent data inputs and emotional intensity, we give birth to new "emotional anchor" that link between innovation and positive emotions. Magazines, information, posts containing interesting facts and so on can all be good opportunities to feed those who communicate positive unconscious.

Organizational culture is the last frontier of management. This is because, on the one hand, improvements in this area involves a long journey and, on the other hand, because the impact of the search effort is crucial. The importance of this element of innovation should never be underestimated.

The final element of innovation in the organization is rewards. Every innovation effort should be rewarded in a way that is not related to money. The objective of this reward is better to be focused more on improving the performance of the act involved in innovation, willingness to work with the team and tolerance for gaps or challenges etc. Rewards should be "there" for employees, even desirable that they should, and they can choose them. Generations to come later can contribute to all means independence, flexibility,

visibility and interaction with others. Therefore, everything that involves rewards should now be reassessed.

4. Ways to promote innovation process in organizations and its impact on organizational performance

Because we already live in an interconnected world where the access to information (especially to specialised information) is vital, networking has become a necessity for companies, especially for small and medium size enterprises. Networking between large companies and small and medium size enterprises (SMEs) are an opportunity to have access to information and to the exchange of information in a timely manner and without high consumption of resources. Networking is a starting point for most of the clusters initiatives. Clusters provide an environment where economic agents can exchange information with other partners in the cluster. However, today's business world shows that a successful business is increasingly dependent on an environment that fosters cooperation and innovation.

In this context, we can say that for Romanian enterprises clustering is a source of competitive advantage. Business clusters are considered today a strategic tool that enables businesses, especially those in the SMEs, to be competitive both nationally and internationally. This is because the main objective of any cluster is to achieve competitiveness and economic performance.

There are many benefits of clustering for involved organizations and for increase their performance (Coșniță and Guth, 2010).

Firstly, the cluster can be considered a source of skilled labour force, having a high mobility. Transaction costs for identification, selection and employment are relatively low because companies can easily find specialized human resources in the cluster.

We all know that at the organizational level, human capital is a critical source of competitive advantage, a determinant of the competitiveness of the organization. Integration within a cluster can be a possible solution because the cluster is carried out continuously many specialized processes related to human resources, and these processes are generating performance.

Secondly, the new model of values in the cluster is based on the specialized knowledge and technologies that give the unique character for the cluster. A firm acting alone, especially the SMEs, would not have access to such knowledge and technologies to support innovation.

According to knowledge management, cluster performance will be measured using the degree of ensuring specialized knowledge and their quality, and also how to create new knowledge. This is achieved through close collaboration between R & D institutes, universities and other organizations within the cluster. Also the clusters improve innovation process and technology transfer process. Thus, it is possible to define new standards, to transfer technology and to improve manufacturing process.

Thirdly, clusters are crucial for market access, especially external market access, especially for SMEs. Small businesses can enter the domestic market, but only in very few cases they can be competitive in distant markets, if they are not part of a local network of complementary skills. Export in group can enable companies to overcome individual limitations and to penetrate foreign markets.

Fourthly, clusters facilitate specialization and effectively help entrepreneurs to invest little by little, depending on available resources and skills. Thus, in some associations formed within the cluster can develop strong relationships with financial institutions. The cluster demonstrates that competing organizations can

collaborate if they find a way to mutually beneficial cooperation based on the principle of "win - win".

5. Conclusions

In the knowledge economy, innovation in the production of goods and services is the factor that determines the competitiveness of organizations.

The basis for a viable innovation strategy is the combination of firms, participation in networks, alliances and collaborations to reduce increasingly costs of technology transfer.

The organizations can achieve in this regard, different types of agreements for research, development and innovation, directly with research institutes, universities, other organizations, public-private partnerships, which can be of different nature, depending on the financial contribution of each party, protection type taken, etc..

As we showed in the paper, such an association is the business clusters that have been considered in recent years, as the surest way of achieving competitiveness within organizations, especially within small and medium size enterprises.

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