Smart Specialization in the Danube Region, Building Trust through Communities of Practice

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Abstract: The Danube region covers from upstream till downstream regions of 9 EU countries, (Germany, Austria, Hungary, Czech Republic, Slovak Republic, Slovenia, Bulgaria, Romania and Croatia) and 5 non-EU countries (Serbia, Bosnia and Herzegovina, Montenegro, Ukraine and Moldova). From the social and economic point of view they can be divided into highly developed economies, medium developed and less developed. The macro region of the Danube is one of the EU macro-regions subject to a special strategy developed by European Commission and comprises both EU and non EU member states. Compared with other macroeconomic regions within EU, this region is facing greater economic disparities which may be consider as an obstacle for cohesion policy and for the successful development of the region. In order to overcome these obstacles the region has to cope with issues like smart specialization, an essential process for the overall competitiveness of any region. But can regions with high economic, social and cultural disparities like this one be successful in smart specialization processes and how? This paper is bringing some new approaches on this issue, to be further analyzed and considered.

Keywords: macro-economic regions, smart specialization, competitiveness, economic convergence, clusters, knowledge economy, community of practice

JEL classification: A1

Introduction

EU Strategy for the Danube region is one of the macro-economic strategies that are in force in EU in order to give a new identity to the Union but also address growth and competitiveness constraints. Smart specialization, a concept launched by Dominique Foray, is a main objective of the strategy. Application of this concept has led to recent debates since we are entering in a new phase of knowledge based economy. The question of our research is how Danube region national states are prepared to take the challenge in smart specialization since regional disparities in economic convergence and development are so high. The answer to this question is important since the region may succeed or not to built prosperity in the new global environment. One way to
look at these disparities is the capacity of some countries in the region to build trust and communities of practice, as per ideas developed by Etienne Wenger.

1. Danube Regions Challenges

According to the EU Strategy for the Danube Region (www.eusdr.eu) the region is facing several important challenges which have to be addressed:

- environmental threats (water pollution, floods, climate change)
- untapped shipping potential and lack of road and rail transport connections
- insufficient energy connections
- uneven socio-economic development
- uncoordinated education, research and innovation systems
- shortcomings in safety and security

The Strategy agrees that better coordination and cooperation between the countries and regions is needed to address these challenges. But, in terms of challenges, the strategy does not specify the significant amount of the disparities of territorial cohesion, and the high degree of economic, social and cultural heterogeneity which may create social and economic divides which may be harmful to cooperation. The term used in the strategy and joint statements is “uneven socio-economic development” but if we look at the figures we may see countries in the downstream of the river having a high gap of development compared to the upper stream. The challenge for the future of the region, according to our analyses, is the real economic convergence of the “peripheral” states in terms of development and the strategic response that competitiveness and smart specialization may bring.

In this respect, if we are looking to the objectives and 11 priorities areas of the EUSDR, in the figure below, we may also notice that we deal with a difficult task.

![Figure 1: Objectives and priorities of EUSDR](Source: (www.eusdr.eu))

What we see in the figure is a balanced approach to the region development but, in the same time we have to pay attention to the goal of “Building prosperity” considered by us the most crucial and challenging one. In spite of the fact that regional and cohesion policy
in the whole EU worked to some extent efficiently, there are serious limits in its achievements due to inability to tackle with them complex issue of regional competitiveness. Global crises led to a kind of introversion towards national internal development prioritizations at EU national member states level, fact which is not in favour to a further integration and convergence. In the same way, in spite of the fact that Danubian states are hoping to join EU, the enlargement policy has been more cautious.

On the other hand, EU can only be globally competitive and successful, when and if knowledge economy and smart specializations are prevailing in a harmonized manner at EU regions as well. Regionalization in economic terms is about local value chains and “vertical specialization” able to compete internationally empowering the unequal regional partner to cooperate. It concerns the EUSDR neighbours as partners irrespective of their gaps in development. In this respect, enlargement process of non EU Danubian states as well as the convergence and deeper integration of the less developed states downstream the Danube are a vital challenges for the success of Danube Strategy. Macro-regional integration will be, in this respect, a vertical integration, able to bring to the global market better products from the region, trough stimulation of smart specialization.

2. Knowledge Based Economy, Smart Specialization

The concept “knowledge-based economy” asserts the fully recognition of the role of knowledge and technology in economic growth in spite of the fact that knowledge and technology, as “human capital” has always been central to progress. Its relative importance grew in mankind history from agrarian societies to industrial ones and knowledge based ones. While in agrarian society’s physical works was prevailing and in transitional industrial ones, the fixed capital and physical labor were still dominant, now we can see the dominance of knowledge in any product or service created by man.

The developed economies are more strongly dependent on the production, distribution and use of knowledge than ever before. Output and employment are expanding fastest in high-technology industries. In the past decade, the high-technology share of manufacturing production and exports has more than doubled, to reach 20-25 percent. Knowledge-intensive service sectors, such as education, communications and information, are growing even faster. Indeed, it is estimated that more than 50 per cent of Gross Domestic Product (GDP) in the major OECD economies is now knowledge-based.

If we consider technological development, we can assert that industries are moving faster than ever from industry 1.0, dominated by machines, to industry 2.0 based on automation, to industry 3.0 based on Internet. In the last 3 – 5 years only, we reached the dawn of technological revolution industry 4.0, which is emerging. That means that Internet is going beyond connection of people in order to connect things becoming Internet of Things (IoT), as per figure nr. 2.

We are not quite sure what will happen next, but we are sure now that everything may be connected with everything, machines, communities, people, processes and data like in figure nr. 3.
Therefore, the future belongs to a highly interconnected world where old classical manufacturing or service sectors will reshape and combine unpredictably. What we now define as smart specialization or RIS3 (Research and Innovation strategies for Smart Specialization) as a strategic approach to economic development through targeted support for research and innovation may be in constant and unforeseen development. The process RIS 3 is comprised of participation of different regional actors in activities like: developing a vision, identifying the place-based areas of greatest strategic potential, developing multi-stakeholder governance mechanisms, setting strategic priorities and using smart policies to maximize the knowledge-based development potential of a region, regardless of whether it is strong or weak, high-tech or low-tech. This is a complex process which may be leading to new knowledge avenues but who are the main actors?

We have to keep in mind that the concept was defined by research groups exploring why Europe was lagging behind the U.S. in competitiveness with a particular focus on research and development (R&D) intensity and dissemination of new technologies to explain growth differentials. The group identified that research investment in Europe was overly
fragmented, lacking in co-ordination of research and innovation (R&I) investment between stakeholders, and lacking critical mass. Even more important, most of the research in USA was entrepreneurial led. Now, it is more and more recognized that smart specialization healthy trends are the following;

- The process is not a planning doctrine or method but rather a community of good practice;
- It is vertical, always looking to the value chains of new products or services;
- It is targeting market opportunities;
- It is very much related to economic concentrations;
- It is more niche related and cross sector;
- It is exploratory, inclusive, cyclic and visionary;
- It is an entrepreneurial discovery

3. Economic Concentrations, Clusters and Networks in the Danube Region

Active economic concentrations cooperating and competing in the same time are based on strategic alliance. A simple model of understanding complex interactions between the players is in that presented figure nr. 4.

![Figure 4: Trust management in business alliances](image)

Source: author interpretation

What we see clearly from all the model of viable economic concentrations is their capacity to cooperate based on trust. Acknowledge and re acknowledged trust is the very essence of economic performance.

If we are analyzing the phenomenon of economic concentrations the Danube region we may notice the followings:

- Strong economic concentrations and clusters are located in the developed part of the macro-region, in Baden Wurttemberg, Bavaria and Austria;
- Most of the clusters and networks in the developed part are better fit to cooperate in networks of clusters or networks at the regional level, acting like a powerful engine of smart specialization;
- The other countries in the region, in spite of the fact that they developed also clusters and networks; they are only at the beginning of their becoming strong alliances in smart specialization or technological change.
If we are looking at the scheme developed by DanuClus, the platform of clusters in the region, we may see some strong trends of specializations in the region but, most of the actors of this new value chains are located in the upper river countries.

The Industrial convergence of the region on regional value chains which are forming in the region finds the enterprises or clusters in the less developed downstream countries occupying a peripheral place. Cross-clustering, networking and high specialization is concentrated to the upper region companies and networks. In this respect the regional specializations occurs at the regional level with a weak contribution from the less developed countries. This contribution to the regional specialization of the poor countries is mainly located in the inferior parts of the regional value chains. In other words, governance of the regional value chains and trends in macro-regional specializations or capacity to compete on in global value chains is by far ensured from the developed group of countries already mentioned.

4. Increasing Trust and Communities of Practice

As initially observed, compared with other macroeconomic regions, greater economic disparities are an obstacle for cohesion policy and for the successful development of the region. Based on our research, region has to cope with issues like smart specialization, and knowledge based economy and competition an essential process for the whole region but the regional divide in terms of organization culture may act adversely. On our opinion the regions, with obvious high economic, social and cultural disparities may be successful if the downstream less developed countries will succeed to embark in a road of enhancing trust and cooperation at every segment of the society. Management of trust is the missing essential link to start with.

In this respect, building Communities of practice (CoP) is the viable solution. In a simple but essential understanding, CoP means groups of people which share a problem, a constraint and get together in order to reach a common understanding and knowledge in order to be able to solve that problem or constraint. Knowledge comes from the interior
of the group and therefore CoP is the solutions for smart specialization processes which may occur only through this way of building communication and trust. Thus, groups of people are creating a long, cyclical structured dialog which enables them to create new bodies of experience and knowledge management. Usually CoPs is sharing knowledge, competencies, abilities visions and options. Schematically, beneficial circle of CoP may look like figure below where Knowledge K) is first externalized by the group, then internalized and afterwards combined in order to give a new response to the challenge:

![Figure 6: CoP]

Source: author interpretation

**Conclusion**

Most of the performing companies, clusters, networks engaged in smart specialization processes are, to a great extent CoPs. Only this collective approach, common to co-working and inter disciplinary research enables capacity to get dominant position for you business model and for a regional value chain. Our concluding remarks are considering CoP as a necessary tool to be developed, both at national level in low income and low trust regions of the Danube and at macro-regional level between various stakeholders engaged in the process of governance of the macro-region. In the new era of knowledge based economy a new competitive identity for the region and a real economic convergence of the member states will be not possible without knowledge management in all strategic objective and priorities areas of the macro-region. CoP culture should therefore introduce to avoid trust divide and a region lagging behind.

**References**


