

THE IMPACT OF ECONOMIC SPECIALIZATION ON REGIONAL ECONOMIC DEVELOPMENT

Panteleeva I.I.

**School of Business of Belarusian State University
Minsk, Republic Belarus**

Industrial change focusing on innovation is one of the critical challenges of the 21st century that refers to ongoing economic and social development in all industries and fields of activity – both emerging and traditional sectors in decline. The development of methodological approaches to determining the priorities of smart specialization in scientific discourse, in addition to the traditional use of localization and specialization coefficients, has recently taken place in the direction of substantiating technological alternatives using the concepts of technological connectivity and diversification (diversity) and local (including implicit) knowledge [1].

The connection between export, sectoral, scientific, and technological competences is crucial for driving regional economic development and enhancing competitiveness in the global market. Export competence refers to a region's ability to produce goods and services that can be sold in international markets. It encompasses aspects like production quality, compliance with international standards, and ability to meet market demands. A region with strong export competence typically has a diverse industrial base and can leverage its unique products to compete effectively abroad. Sectoral competence relates to the capacity and expertise of specific industries within a region. It includes the availability of skilled labor, infrastructure, and existing clusters that enhance production efficiency. When specific sectors, such as technology, agriculture, or manufacturing, develop strong competencies, they can capitalize on their strengths to create specialized export products. For instance, a region with a robust tech sector can lead in software exports. Scientific competence refers to the region's capacity for research and development (R&D), innovation, and the ability to apply scientific knowledge to practical problems. It includes universities, research institutions, and collaborative networks. A strong scientific foundation fuels innovation within sectors, leading to the development of new products and processes. This can enhance export competence by creating higher value-added goods. Technological competence encompasses the ability of a region to adopt, develop, and integrate advanced technologies into production processes and products. This includes both hardware and software capabilities. Technological advancements improve the efficiency and quality of products and services, making them more competitive in international markets. Companies that adopt cutting-edge technologies often enjoy lower production costs and can produce higher-quality exports. Export, sectoral, scientific, and technological competences are interdependent. Strong sectoral competence leads to better utilization of scientific and technological innovations, which in turn enhances export capabilities. As exports increase, sectors gain revenue and market insights that drive further innovation and investments in science and technology, creating a positive feedback loop. Regions should focus on developing scientific and technological competences aligned with their sectoral strengths to boost export potential. For instance, investing in R&D for a dominant agricultural sector can lead to innovative farming technologies and higher quality exports.

To foster a sustainable economic environment, regional policymakers should promote the development of these competences through strategies like supporting education and training, investing in R&D infrastructure, encouraging public-private partnerships, and facilitating international collaborations. This approach can enhance a region's competitive position in the global market.

Economic specialization refers to the focus of a region on specific industries or sectors in which it has a comparative advantage. This focused approach can significantly impact regional economic development in various ways, both positive and negative. Specialization allows firms to increase production levels, leading to lower costs per unit and more efficient resource use. A concentrated focus on specific industries promotes the development of specialized skills among the workforce, enhancing productivity. Regions with clear specialization can attract investments from businesses seeking to benefit from existing infrastructure, skilled labor, and established supply chains. Economic specialization can foster innovation ecosystems, attracting investment and fostering collaboration between businesses and research institutions. Specialized sectors are likely to experience job growth, providing employment opportunities for the local labor force. As specialized industries grow, they may induce the development of ancillary industries, leading to a diverse array of job opportunities. A region's focus on specific industries can lead to a strong brand identity, making it an attractive destination for tourists, investors. Regions that specialize can create high-quality products that meet global demands, enhancing their export potential. Specialization can help regions position themselves on the global map, establishing a reputation for particular goods or services. Specialized industries often have higher rates of innovation as firms aim to stay competitive, leading to the development of new products and technologies.

The proposed methodological approach allows to identify the unique competences of the region, i.e., competitive advantages are differentiated depending on export, industry and scientific and technological specialization at the global, national and macro-regional levels. The combination of unique sectoral, scientific and technological competences forms the potential of the smart specialization of the region. In the future, it will help to determine the strategic priorities of smart specialization based on the managerial matrix of conjugation of the results obtained, which includes both key (core) and possible-to-develop (technologically related) unique competences of the region for the implementation of entrepreneurial search. All above offers a structured pathway to identify and leverage the unique competencies of a region to realize its smart specialization potential. By systematically assessing existing strengths, analyzing them across various levels of comparison, and employing a comprehensive strategic framework, regions can set priorities that align with their unique advantages. This ensures a targeted entrepreneurial search, fostering sustainable economic growth and innovation tailored to local capabilities and market needs.

References

1. Strategic management of smart specialization in regional economic development: connection of export, sectoral, scientific, and technological competences [Electronic source]. – Access mode: <https://www.researchgate.net/publication/376472740>. – Date of access: 08.02.2025 r.