
Smart specialisation: towards the potential application of the concept for the local development

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Abstract

The concept of Smart Specialisation includes different propositions of how to become smart. However, there are gaps in understanding of potentiality of this concept. The paper reviews an area of emerging research on smart specialization. The core idea and main objective of this paper is to analyse the potential implications of this approach for the local development, particularly for latecomers. The paper discusses several theoretical and practical insights, future research directions are suggested. The concept map characterising the complexity of decision making in the development of smart specialisation strategy for the competitiveness of local economy is proposed.

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Peer-review under responsibility of the Kaunas University of Technology.

Keywords: Smart specialization; development; knowledge; local–based; latecomer economy; domestic.

1. Introduction

The argument of smart specialization originally emerged out from examining and strategic reflections carried of between 2006 and 2009 at the EU level. Academic spread of the concept of smart specialisation starts from works of Foray, David and Hall (2009). They argue that this concept is both an idea and a tool which can answer the critical question of the domestic unique positions in the knowledge economy (Foray et al., 2011). At the same time different understanding and interpretation of what such tool or the idea really mean clearly could be seen in the scientific literature. Even if the key motive for the developing smart specialisation strategies is quite clear – the competitiveness of the state, region (Castillo et al., 2011, 2013; McCann, Ortega – Argiles, 2011, 2013; Camangi,
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Capello, 2013; Morgan, 2013, etc.) or other social-economic system, the scope of dimensions and their priorities are subject for the discussions in the scientific literature. If to look at the recently developed national Smart specialisation strategies in different EU countries one could see two key differences in application of the concept (see McCann et al. 2011; Castillo et al., 2011, 2013; Ketels, 2012; Navaro et al., 2013). Some countries or the regions consider research and technology development (R&TD) as a key if not the only tool (Giannitsis, Kager, 2009). At the same time a number of researchers (McCann, Ortega-Argiles, McCann, 2011; 2013; Foray et al., 2011; Ketels, 2013 etc.) and countries suggest to look much broader taking into account local context (see Barca et al., 2012; Ketels, 2012; Navaro et al., 2013; Vantilho, Verhetsel, 2012). We will support such approach in our paper.

Clearly, the concept of smart specialization will be debated for many years to come because it is a highly contested concept and even its architects concede that it is a perfect example of “policy running ahead of theory” (Foray et al., 2011). Moreover, the rationale of smart specialization involves both the fact that the logic of specialization is intact, particularly for small economies and the argument, that the task of identification of what should be prioritized is multidimensional and sophisticated (Foray, Goenega, 2013). The goal of the article is to contribute to the development of the concept of smart specialisation by presenting different structural approach of the dimension of smartness in local-based economy. The discussion in the article will be concentrated around some key questions: what does smart specialisation really mean? Why the new approach is needed? What is smart in local development?

2. What does smart specialisation really mean and do we need a new concept?

This is no simple answer to that question. The main reason why is because there still is no sufficient theory of the smartness concept developed yet. It is even the fact that the concept elaborated by a group of academic experts in 2008 very quickly made a significant impact on the policy audience. Foray (2011) probably is right concluding that we have a situation when policy runs ahead of theory and the concept is still not tight as an academic concept. The idea of smart specialization is based on the notion that countries, regions or the cities cannot achieve everything in science technology and innovation. If so, there is no other alternative than to try making a thoughtful prioritization of strategic goals and concentrating resources in certain domains of expertise (McCann, Ortega-Argiles, 2011). According to Foray et al. (2009) and McCann et al. (2011), smart specialization could be defined as the prioritization done at regional level in a small group of sectors/technologies potentially competitive in international markets and generators of new activities with competitive advantage over other locations. Newly developed innovation as well as science technology development policies are also based on employment the concept of smart specialisation. Other definitions of smart specialization could be presented. However, in all definitions some key characteristics are present: specialization, smart, innovation, R&TD. Innovation as well as R&TD dimensions hardly need deeper explanation; innovations – not only technological but a variety of so called “soft” innovations is a crucial precondition for competitiveness and success in the global economy. Specialisation also is quite an understandable issue – nobody can by so good in many fields, especially those from small economies. However, the central question in that respect is about the scope and the character of specialization. Should it be the result of vertical integration and limited number of highly specialized outcomes or should it be a result of complex sets of related diversification? Both of them are possible alternatives with about the same chance to succeed. Then we come to the other question - which specialisation could be called smart and which is not (Giannitsis, Krager, 2009). Should digitalization and extensive use of new knowledge is a necessary precondition? But in that case only a very limited number of countries, regions and other social systems could be called being smart. On one hand side it is a subject of agreement. However, in such case there would be no reason to develop a new concept that is applicable to a very limited number of objects. Clearly, it is not a case because most of EU Policies are based on that concept (RIS 3).

Application of more vertical and narrower approach leads to deeper specialization based on more fundamental knowledge. This is OK for big economies like the EU or the most advanced countries. They could develop their growth strategies based on smart specialisation in a number of sectors and technologies. However, it would be problematic for small economies like the Baltic or other CEE countries due to limited resources possessed. Their strategies should be focused on identification of the unique characteristics and assets of each country and region, highlighting competitive advantages, concentrating regional stakeholders and resources around an excellence-driven vision of their future. Smart specialisation would allow regions to take advantage of scale, scope and spillovers in
knowledge production and use. Smart specialisation combines knowledge and innovation with specific strengths of the national or regional economy; also it generates unique assets and capabilities based on the region's distinctive industry structures and knowledge bases. The synthesis and integration of fragmented knowledge and capabilities should help to create a vision for opportunities in existing or new sectors.

2. Method

The methodology of the research is based on the critical analysis of different conceptual approaches presented in the scientific literature and practical applications by different countries while developing their smart specialisation strategies. The conceptual mapping has been used as a tool for structuring big variety of dimensions of the context that should be counted when developing the smart specialisation strategy for the local competitiveness.

3. Results

The recent work on smart specialisation has provided new important insights that enable to create good platform for application of this concept in different contexts, however there are gaps in understanding of potentiality of this concept. The discussion on the potential application of the concept for the local development enables to provide the logic of the development of such strategy for economically not so advanced regions, based on several pillars:

Positioning the economy in the global, macro-regional or national value chain;

- Market context perspective from which specialization patterns are configured as parts of a particular value chain and hold a comparative advantage regarding other locations is important;
- Creating the competitiveness strategies targeted on the development of unique and effective business system;
- Such system should be based on exploiting existing quality of business ecosystem and composition of economic activities with their further targeted development towards deepening specialisation in technological domains or specific sectors, where the region is competitive and able to prioritize its efforts with a significant rate of return;
- Development of innovative and entrepreneurial culture of all regional stakeholders in order to strengthen ecosystem for generation of new knowledge and its effective transformation into innovations and welfare;
- Mobilisation of strategic resources such as knowledge, intelligence, technology, finances from all available national, global and EU sources.

The critical analysis of different conceptual approaches presented in the scientific literature and practical applications in different countries has identified a number of area potential and important areas in which further conceptual progress is critically needed. Thus, one important issue is which complexity of contexts and preconditions are important for prosperity outcomes of the local development. The conceptual map of the complexity of contexts and preconditions for the development of local competitiveness strategy based on the smart specialisation concept is presented in Fig.1.

4. Conclusions

1. The concept of smart specialisation has good potential to become a targeted and at the same time integral tool for the development of innovation policies, regional and local development strategies even if the sufficient theory is not developed yet. A rich experience in practical application of such concept already creates good platform for its application in different contexts and different purposes.

2. The underlying rationale behind the Smart specialisation concept is that by concentrating knowledge resources and linking them to a limited number of priority economic activities, countries and regions can become competitive in the global economy. Applying vertically integrated activities leading to deeper specialization based on research and technology development is less applicable to the regions or countries with scarce resources. Designing of smart specialization based on combination of different competences seems to be more perspective.
Figure 1. Complexity of contexts for development of smart specialisation strategy for the local competitiveness

This research is funded by the European Social Fund under the Global Grant measure.
References


