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Review of doctoral dissertation written by Svetlana Keil entitled:

„Organising for Smart Specialisation: hype or institutional change

in innovation policy in Lithuania and Poland?"

under supervision of prof. UW dr hab. Krzysztof Klincewicz and dr Marcin Kardas

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1. Formal information

The formal basis for the preparation of the review is the decision of the Scientific Council on Management and Quality Sciences of the University of Warsaw on appointing the undersigned as the reviewer of the Ph.D. thesis written by Svetlana Keil, entitled: „Organising for Smart Specialisation: hype or institutional change in innovation policy in Lithuania and Poland?". The review concerns a manuscript containing a total of 384 pages written in English, with title, abstract and keywords provided also in Polish. This review has been prepared in English, with final conclusion formulated also in Polish. Analysis of the Ph.D. thesis structure, content distribution in individual chapters and supplementary elements allows for a positive evaluation of the doctoral dissertation from a formal standpoint.

2. The choice of the thematic area of the Ph.D. thesis and the originality of the research problem undertaken

The subject of the reviewed doctoral dissertation of Svetlana Keil is smart specialization, analysed through the prism of Lithuanian and Polish experiences. This is an important thematic area as the concept of smart specialization strategy represents a relatively new strategic orientation of regional policy, reflecting a shift from a "redistributive" toward a "developmental" logic, which aims to promote innovation-based endogenous development. As recommended by the European Commission, each region should have a strategy for the development of smart specialization, engaging actors that participate in the entrepreneurial discovery process and form an adequate innovation ecosystem. This approach recognizes the importance of focusing on identified regional strengths in order to realize the potential for scale, scope, and spillovers in knowledge production and utilization, and consequently

increase the productivity of innovation-related activities. S3 should be perceived as a regional initiative useful in the exploration and discovery of technological and market opportunities leading to a sustainable competitive advantage, upon which related policy actions will be conceptually based and implemented. Therefore, the reviewed Ph.D. thesis forms part of the research on issues that are increasingly important in contemporary studies on innovation policy, especially at the regional level. The originality of the research problem should be highly appreciated, because while there are many publications addressing the concept of smart specialization, the dissertation fills significant research gap regarding the institutionalisation of the S3. Taking into account both cognitive issues and their potential application aspects, the reviewed doctoral thesis is an original attempt to solve an actual and important scientific problem.

3. **Assessment of the correctness and completeness of the objectives of the doctoral dissertation and the research questions posed, as well as the research methods applied**

The general objective of the reviewed doctoral thesis is to explore the process of defining and implementing smart specialisation strategies in Lithuania and Poland and explain possible reasons for inconsistencies in the implementation with the guidelines defined by the European Commission in these countries. This is properly set research goal. However, in my opinion, research problem was not properly expressed as it was formulated in a form of the question: "What are the antecedents and reasons for the policy documents labelled as smart specialisation strategies not leading to genuine prioritisation and not ensuring the possibility to consolidate public support for research and innovation (R&I) during the financial programming period 2014-2020 in Poland and Lithuania?" (p.23). Nevertheless, it is followed by properly formulated 8 research questions, which lead to explore the S3 in Lithuania and Poland. These elements precisely define the direction and scope of the research. Additionally, the Author bridges the theoretical and empirical parts of the study by conducting systematic literature review on smart specialisation and formulating 4 literature questions (LQs). This is an ambitious task that was undertaken and successfully realized in the reviewed doctoral thesis.

Several research methods were applied, which enabled for the research questions to be answered, right conclusions to be drawn, and accurate documentation of the research findings to be collected. In particular, grounded theory tools, such as coding, Conditional Relationship

Guide and Reflective Coding Matrix, were used to analyse 38 semi-structured interviews with diverse stakeholders from Lithuania and Poland.

4. Evaluation the structure and the content of the doctoral dissertation

The reviewed Ph.D. thesis has a standard division into the theoretical and empirical part. It is transparent and logical structure that enabled the correct analysis of the research problems. The essential substantive part of the doctoral dissertation was included in seven thematically separated chapters, first of which is introductory, and the seventh contains concluding remarks.

The first, introductory chapter provides information on the dissertation topic and the structure of the thesis, as well as it positions the research topic in the field of management and organisation theory, linking it to the context of innovation studies and public support for innovation. In addition, it presents an overview of the research streams on S3 in order to identify the research gap to be addressed in the dissertation. This forms the basis to formulate research objective and research questions.

The second chapter provides a theoretical background on the neo-institutional theory, in which the research conducted by the Author is grounded. Moreover, it explores the theoretical assumptions underlying S3 as an research and innovation policy tool, with focus on examining whether and to what extent the S3 approach has been institutionalised in Lithuania and Poland. This is an interesting perspective, and the chapter facilitates a better understanding of the results of the empirical analysis presented in the subsequent parts of the reviewed Ph.D. thesis.

The third chapter links the theoretical part with empirical analysis as it provides a context for the research on the institutionalisation of the S3 in Lithuania and Poland. It starts with the presentation of the international smart specialisation context, analysing smart specialisation guidelines covering 6 steps of S3:

1. Analysis of the regional context and potential for innovation.
2. Governance: ensuring participation and ownership.
3. Elaboration of an overall vision for the future of the region.
4. Identification of priorities.
5. Definition of a coherent policy mix, roadmaps and action plan.
6. Integration of monitoring and evaluation mechanisms.

Additionally, 12 thematic issues to be considered during S3 are discussed:

1. Clusters and smart specialisation.
2. Innovation friendly business environments for SMEs.
3. Research infrastructures, centres of competence and science parks.
4. Universities and RTOs.
5. Digital Agenda for Europe.
6. Key enabling technologies.
7. Cultural and creative industries.
8. Internationalisation.
9. Financial engineering instruments.
10. Innovative public procurement.
11. Green growth.
12. Social innovation.

The presentation of 6 steps and 12 thematic issues to be considered during S3 is an important part of the thesis as it provides the framework for a comparative overview of innovation policy context and approach to S3 in Lithuania and Poland in the later part of the chapter. Additionally, the Author presents possible effects of S3 on developing and implementing the R&I policies in European regions. Covering around 70 pages, the third chapter is one of the longest chapters in the whole doctoral dissertation. This is the result of meticulous work of the Author, which resulted in the presentation of a descriptive review of innovation policy and S3 context in Lithuania and Poland, serving as background information for further in-depth analyses.

The fourth chapter is methodological, and it approximates the methods and procedures used in the research process. In the first part of this chapter, grounded theory approach is presented as an inspiration for the research methods adopted in the dissertation. In particular, such grounded theory tools, like coding, Conditional Relationship Guide and Reflective Coding Matrix were introduced as they were used in empirical part to analyse the interviews. Data sources were also described, both primary data sources such as official documents, reports, internet websites, and other sources related to the S3 in Lithuania and Poland, and secondary data sources used mostly to provide background information for Lithuania and Poland. This part of the work accurately describes the nature of the research undertaken and meets good standards of scientific work.

The fifth chapter contains the results of empirical research on institutionalisation of S3 in Poland and Lithuania. This problem is analysed from four main perspectives:

- the main elements of the governance structure,
- the embeddedness of S3 approach in everyday institutional routines,
- the mechanisms that affect the dynamics of the evolution of S3 initial assumptions,
- the effects of isomorphic pressures on the institutionalisation of S3.

The analysis conducted in Chapter 5 resulted in formulating different preliminary propositions for theory, related to particular perspectives connected to the issue of institutionalisation of S3.

The sixth chapter focuses on discussion of the results of undertaken research, analysing them through the prism of neo-institutional theory. One of the important value added of this part of the dissertation is the proposition of the idea of discontinuity as a theoretical construct for understanding institutionalisation barriers. The Author proposed its own definition of discontinuity, which "is when the process may stagnate, break off, or take a different development path than initially intended because of an interruption or inconsistency. Discontinuity emerges when the process of S3 conflicts with widely accepted assumptions and interpretations of smart specialisation or lacks coherence when translating strategy into practice. The consequence of the discontinuity is stagnation of the process, return to previous institutional frame, and, possibly, decoupling". In addition, sixth chapter describes how deficits in the governance structure, relational structure and power structure result in discontinuities in the S3 and EDP. This forms the basis to propose original model framework, which allows to analyse discontinuities in the S3. Another important value of the chapter is relating discontinuity to isomorphism, distinguishing the S3-specific criteria that determine isomorphic pressures, which may lead to decoupling.

The seventh chapter incudes concluding remarks, summarizing research approach and context, as well as providing an overview of the findings. Additionally, the Author lists the limitations of the research and possible directions for future studies, such as leadership in the S3 or "boundary spanners" responsible for organising and facilitating entrepreneurial discovery process within particular specialisations. The concluding chapter is a valuable summary of the results of the conducted analysis. Summing up, I would like to express the opinion that the Author showed that she has a very good research workshop, and the conclusions she draws are factual and valuable.

5. Evaluation of the research results

In the reviewed doctoral thesis of Svetlana Keil, an important research topic was undertaken, both from the scientific and practical point of view. Both the theoretical part of the dissertation and the results of empirical research carried out in a professional way should be highly evaluated. In my opinion, some of the key achievements include:

– filling the existing gap between diverging theory and policy practice in implementing S3 approach in moderate innovators countries like Poland and Lithuania,

– analysing innovation policy and S3 through the prism of neo-institutional theory, with examining whether and to what extent the S3 approach has been institutionalised in Lithuania and Poland,

– finding that S3 by entrepreneurial discovery process (EDP) in Lithuania and Poland could be characterised as an emerging organizational field with developing governance architecture, encompassing formal, power, and coupling structures, whereas the deficits in these structures result in the discontinuity of institutionalisation,

– identifying the reasons for the deficits in governance structures around S3, such as: inadequate coordination of multilevel governance, misaligned administrative capacities, weak sectoral governance component, the unbalanced influence of various stakeholders, a lack of balance between top-down and bottom-up approaches when designing the process, inadequately predefined priority fields or regional boundaries, insufficient engagement of relevant stakeholders, and a lack of coalition between stakeholders,

– proposing of the concept of discontinuity as a theoretical construct, which makes it possible to explain obstacles to institutionalisation, with providing with own definition of this term,

– building a model framework which may assist in analysing the components of S3, including their interrelationships, and in detecting where a potential discontinuity may occur,

– identification of discontinuity as a key feature of the S3 in Lithuania and Poland, marking the central category in the theory discovery process.

One of the particularly interesting aspects, which were explored in the reviewed doctoral thesis, is related to the connection between S3 and clusters. I find the rationale for this

connection in the observation that clusters themselves are the building blocks of regional economies, representing the areas of specializations rooted in a region's knowledge base. In fact, each smart specialization strategy needs actors that participate in the entrepreneurial discovery process and form an adequate innovation ecosystem. Hence, the S3 implementation depends on the ability to find such actors and bring them together. This is, in my opinion, where S3 is linked to clusters, as they group key players (local business, scientific, and political institutions), stimulating cooperation, and leading to synergy effects. Therefore, clusters may be treated as a prerequisite of S3, and especially as instruments for the conception and implementation of regional innovation strategies. As clusters represent sectoral concentrations in the regional economy, they can be used to identify the industrial strengths and assets in a region. Consequently, in the S3 formulation phase, cluster mapping and benchmarking may constitute useful tools that can be applied to identify regional specialization patterns and compare position of the region in different sectors in relation to other regions. Furthermore, in the S3 implementation phase, the existing clusters may be used to foster cooperation and mobilize collective actions between local actors. Despite the fact that clusters and smart specialization are strongly related to the territorial context and they aim at exploiting the advantages of proximity and sectoral concentration to stimulate innovation and competitiveness, the question arises whether and how cluster policies can be exploited to support implementation of S3 and I would like to ask this question to the Author, relating it to her findings on the Lithuanian and Polish experiences.

6.   Assessment of the editorial and technical matters

The reviewed doctoral dissertation is prepared correctly from an editorial standpoint. The text is written in a communicative and stylistically good English language. The construction of tables and figures is correct, and they have been appropriately marked and explained in the text. The references to the literature are correct. However, the value of the dissertation would have been higher if the text had been more concise – the entire manuscript is quite long (384 pages), partly because of the wide scope and the depth of the research conducted (which is very good), but also partly due to lengthy writing style. The general positive evaluation of the editorial side of the dissertation is not affected by minor editorial mistakes, e.g. referring to Exhibit 5 instead of Exhibit 7 in the text in the 5th line of the page 325 or providing wrong number to subchapter "5.5.4. Comparative summary: institutionalisation, isomorphism and decoupling" starting on page 271. It should be level 2 heading numbered 5.5 (there are no subchapters 5.5.1, 5.5.2 or 5.5.3 in the reviewed dissertation, so there cannot be subchapter 5.5.4). This creates an impression of a certain chaos in the dissertation and that the Author is

not entirely in control of a broad and ambitious study she has undertaken. However, it also confirms the complexity of the research tasks that were successfully conducted in the Ph.D. dissertation.

7. Final conclusion

The analysis of the entire reviewed doctoral thesis authored by Svetlana Keil allows to state that it is an interesting, valuable and original scientific study on the issue of smart specialisation strategies, analysed through the prism of experiences of Poland and Lithuania. The research tasks were carried out in a correct manner, and the conducted analysis proves the Author's ability to conduct a complete research project with a use of various approaches and research methods. In my opinion, doctoral dissertation of Svetlana Keil fully corresponds to the conditions specified in Article 13 of the Act of 14 March 2003 on Academic Degrees and Academic Title and Degrees and Title in Art (Journal of Laws 2003, No. 65, item 595 as amended) and in the Article 187 of the Act of 20 July 2018 – Law on Higher Education and Science. Therefore, I recommend reviewed dissertation to be accepted and allowed to defend it in public.

Konkluzja końcowa

Analiza całości recenzowanej pracy doktorskiej autorstwa Svetlana Keil pozwala stwierdzić, że jest to interesujące, wartościowe i oryginalne opracowanie naukowe dotyczące problematyki strategii inteligentnych specjalizacji, analizowanych przez pryzmat doświadczeń Polski i Litwy. Zadania badawcze zostały zrealizowane w sposób poprawny, a przeprowadzona analiza świadczy o umiejętności prowadzenia przez Autorkę kompletnego projektu badawczego z wykorzystaniem różnych podejść i metod badawczych. W mojej opinii, recenzowana dysertacja doktorska autorstwa Svetlana Keil pt. „Organizowanie na rzecz Inteligentnej Specjalizacji: krótkotrwała moda czy zmiana instytucjonalna w polityce innowacyjnej Litwy i Polski?" (w oryginale: „Organising for Smart Specialisation: hype or institutional change in innovation policy in Lithuania and Poland?") spełnia ustawowe kryteria stawiane pracom doktorskim zapisane w art. 13 ustawy z dnia 14 marca 2003 r. o stopniach naukowych i tytule naukowym oraz o stopniach i tytule w zakresie sztuki (Dz. U. z 2003 r., nr 65, poz. 595 z późn. zm.) oraz w art. 187 ustawy z dnia 20 lipca 2018 roku Prawo o szkolnictwie wyższym i nauce. Na tej podstawie wnioskuję o przyjęcie recenzowanej pracy doktorskiej i dopuszczenie jej do publicznej obrony.