

DISSERTATION REVIEW

Title: Influence of Selected Determinants of the Knowledge Production Function on Innovation Performance in Region

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Emmanuel Ebo Arthur's dissertation deals with the complex and topical issue of determinants of the knowledge production function and their impact on the innovation performance of companies and regions within the European Union, with a particular focus on Central and Eastern European countries. The thesis falls within the field of regional economics, innovation, and knowledge management, using an interdisciplinary approach that combines growth theory, knowledge management, open innovation, and institutional theory.

Benefits and strengths of the work

The work is extensive, systematically structured, and logically constructed. The author demonstrates knowledge of theoretical frameworks (especially endogenous and exogenous growth theory, Schumpeter's theory of innovation, etc.) and their application to the concept of the knowledge production function. A strength is the three-dimensional analytical framework of the work, divided into knowledge management (including corporate information channels and, say, HR practices), knowledge networks (represented by technical and professional knowledge-intensive business services (KIBS)), and knowledge dissemination (focused on the impact of social and political globalization). The author uses secondary data sources (Community Innovation Survey 2018, Eurostat, World Bank Enterprise Survey), working with sophisticated quantitative methods such as probit regression models, IV-Probit, and Poisson models with fixed effects. The results show that knowledge determinants do indeed significantly influence the innovation performance of firms, especially depending on contextual factors. The link to current EU policy on reducing innovation disparities between regions is also significant.

Critical comments and shortcomings

I believe that although the work focuses on "moderate and emerging innovative EU countries," the selection of 14 countries and the aggregation of data in some parts of the analysis may lead to excessive generalization. In my view, it would be advisable to discuss the differences between individual countries in much greater detail, as the results are undoubtedly significantly influenced by the local context. Regional specifics (e.g., differences between Slovenia and Bulgaria) are not always sufficiently reflected. Personally, I would prefer a detailed treatment and discussion of a single country rather than these "statistical summaries" of different sets of countries. But I recognize that many contemporary publications are set up this way.

In some parts of the theoretical framework (e.g., in the description of endogenous growth and its derivatives), the text becomes redundant and overloaded with detailed descriptions that could be shortened in favor of the analytical part.

The analysis is based on the use of secondary data. I do not see this as a problem in itself. The author presents the individual sources (databases) at length and describes their use. Although the author describes the databases used as valid and ethically collected, a more explicit reflection on their limitations and constraints would significantly strengthen the methodological part.

The work is exclusively quantitative. Consideration of case studies, or at least the inclusion of in-depth analysis of selected regions, would provide a deeper understanding of the mechanisms of the knowledge production function.

I find myself wanting a deeper discussion of causality vs. correlation in the selected factors under consideration. For example, the influence of professional services (KIBS) on innovation can be bidirectional—innovative companies are more likely to use KIBS, which the author does not consider. In other words, it is logical that the presence of KIBS will lead to higher innovation performance. This is one of the essences of the very definition of KIBS.

Some terms are only pragmatically taken from the literature or original sources, but I miss a broader discussion or explanation of what they actually mean and what the difference between them is. For example, moderate and emerging countries, which appear repeatedly in the work. The former is the Czech Republic, the latter is Poland, why? What does it actually mean? What is the point of dividing it this way in the work? The same division of "Social globalization" and "Political globalization," what does that mean? How is it defined?

Although the text is generally understandable and scientifically adequate, some passages (especially in the introduction) contain stylistically unbalanced formulations and repetitions. There are typos and missing words (e.g., in the list of hypotheses on page 60, there are several examples of formulated hypotheses, H2c, H3b...).

Conclusion

Emmanuel Ebo Arthur's dissertation is a scientific work that expands existing knowledge about the knowledge production function in the European regional context. Although some parts would, in my opinion, require deeper critical reflection, the overall contribution of the work to the fields of economics, innovation, and regional studies is clear and obvious. I recommend the thesis for defense and propose that the title of Ph.D. be awarded.

In Ustí nad Labem,

Jaroslav Koutský