

Title: Model pathways for improving research excellence in Higher Education Institutions using Excellence Initiatives

Keywords: research excellence, process management in higher education, scientific productivity and efficiency, individual BSC

Summary

The subject of this doctoral dissertation is a multifaceted analysis of Excellence Initiatives (ExIn) in the context of contemporary challenges faced by science and higher education systems. In an era of growing uncertainty and dynamic technological, social, and political transformations, the issue of research excellence has gained particular significance, becoming one of the key elements of science policy and strategic management in research institutions.

The primary objective of this dissertation is to identify and empirically verify the conditions and outcomes of implementing excellence initiatives, with particular emphasis on strategic management mechanisms based on the Balanced Scorecard (BSC) framework. These considerations contribute to the broader discourse on the need to transform higher education systems in response to the evolving operational conditions of the research and innovation sector.

The dissertation adopts an interdisciplinary approach, integrating research methods from management and quality sciences, economics, finance, and economic geography. The adopted research methodology encompasses an analysis of selected ExIn programmes, taking into account their historical, economic, cultural, and political contexts, as well as a quantitative and qualitative assessment of scientific productivity using bibliometric indicators and an original modification of the Location Quotient—transformed into a novel metric, the Barometer of Excellence (BD). This indicator facilitates the evaluation of the concentration level of research excellence processes and enables a comparative analysis of local research systems relative to national and global scales.

The structure of the dissertation comprises four chapters, progressing from theoretical reflections to empirical analysis and the formulation of recommendations. The theoretical part provides a review of global excellence initiatives (including those implemented in Asia, the European Union, and Latin America), with particular attention given to the Polish “Excellence Initiative – Research University” (IDUB) programme. The analysis focuses on both programme assumptions and actions aimed at supporting publishing activities, the development of priority research areas, and quality-enhancing mechanisms.

The empirical part presents the research methodology, scope of analysis, and results of both quantitative and qualitative studies, leading to the creation of maps of research excellence at regional and international levels, and the identification of prevailing patterns and trends in this area. The dissertation culminates in a set of strategic and operational recommendations addressed to science policy-makers, academic institutions, and individual researchers. Complementing these

recommendations is the author's original concept of an individual BSC for researchers, designed as a tool to support academic career development in the spirit of sustainable excellence.

The dissertation contributes to the development of theory and practice in the field of science management and innovation policy, offering both theoretical foundations and practical solutions applicable to the design of modern support systems for scientific excellence.