

REVIEW

by Prof. Atanas Lyondev, PhD, Higher School of Security and Economics, Plovdiv

of a dissertation work for the award of a scientific degree "Doctor of Sciences"
in Higher Education Area 3. Social, economic and legal sciences
Professional direction 3.8. Economy

Author:

Robert Jurczak, PhD

Topic: "Mechanism for innovative development in the agricultural and food sector in the context of regional economic integration"

1. General description of the presented materials

By order No. 136 of 27.03.2024 of the Rector of the Higher School of Insurance and Finance, Prof. Doctor of Law Boris Velchev, I have been appointed as a member of the scientific jury to ensure a procedure for the defense of a dissertation on the topic "Mechanism for innovative development in the agricultural and food sector in the context of regional economic integration" for the acquisition of a scientific degree "Doctor of Sciences" in the District of higher education 3. Social, economic and legal sciences, Professional direction 3.8. Economy. The author of the dissertation is Robert Jurczak, PhD - candidate at the Department of "Finance and Insurance".

The materials submitted by the candidate, Robert Jurczak, PhD include documents according to the presented inventory: a resume, a copy of the diploma for the acquired educational and qualification degree "PhD" and others.

2. Brief biographical data about the candidate

Robert Jurczak received his PhD on 04/18/2012 at the Szczecin University of Technology.

3. Actuality of the topic and appropriateness of the set goals and tasks

The relevance of the problem developed in the dissertation work, in a scientific and scientifically-applied sense, stems from the need to improve the existing ones and search for new approaches to solving the research problem, which is related to the essence of the economic mechanism for innovative development of the agricultural and food sector in Poland. The author believes that despite the fact that there is a significant number of scientific publications and accumulated experience on the functioning of organizations, from a theoretical point of view the problem is still not sufficiently developed. For this reason, the author develops the objective need to carry out such an in-depth study, both with regard to the theoretical-methodological and practical aspects of the economic mechanism for innovative development of the agricultural and food sector, with a view to giving recommendations for practice.

The author of the dissertation aims to develop a conceptual model for the formation of an economic mechanism for innovative development of the agricultural and food sector in various countries of the European Union, aimed at ensuring food security and further integration of the economy into the modern world system. In accordance with this goal, basic tasks have been set and solved.

4. Knowing the problem

The candidate for the Doctor of Sciences has thoroughly familiarized himself with the state of research on the problem by creatively evaluating the literary material that he has studied and used in the development of the dissertation work. The scientific hypothesis raised by the author is related, first of all, to the development of the theoretical and methodological foundations for the formation of an economic mechanism for the innovative development of the food sector in the countries of the European Union. Secondly, to develop a methodology for analyzing and evaluating the functioning of the food sector of the EU countries in the context of the need to increase its competitiveness in different markets. Thirdly, to develop a concept for innovative development of the food sector, ensuring food security, increasing its efficiency in conditions of uncertainty and risk with the aim of integrating it into the world economy.

5. Research methodology

The chosen research methodology allows the author to achieve the set goal and scientific hypothesis and to obtain an adequate answer to the research tasks solved in the dissertation by applying a complex of different methods, survey, point system, economic-mathematical modeling and graphic methods. The scientific achievements of local and foreign researchers, legal acts, statistical and analytical information of the United Nations (UN) Food and Agriculture Organization (FAO), the Ministry of Agriculture and Rural Development, as well as various organizations were also used. from the agricultural and food sector in Poland.

6. Characterization and evaluation of the dissertation work

The dissertation on the topic "Mechanism for innovative development in the agricultural and food sector in the context of regional economic integration" consists of 325 pages and includes an introduction, four chapters, conclusions, a list of references and 20 appendices. 45 tables and 65 figures are presented. The bibliography contains 178 sources (including books, articles, periodical and non-periodical statistical and other publications, reports and online sources). The results of the study are presented in 35 publications (including 1 collective and 1 individual monograph).

In the first chapter of the dissertation, the development and experience of the Common Agricultural Policy of the European Union is examined, revealing the nature, classification and types of innovations in the agricultural and food sector, and summarizing the methodological approaches for the formation of inter-network innovation cluster structures, which shows that the improvement of the mechanism for its use is a main objective of the agricultural reform of the Common Agricultural Policy of the Community and for effective competition in agriculture. The definition of "innovation" is considered as a complex result of the practical activities of business entities in the creation and implementation of new products, new technologies and management methods, analyzes the peculiarities of their application, classifying them according to their subject and content structure and scope of distribution of different types. Based on the analysis, the author indicates the main guidelines and the impact of innovations on improving the competitiveness and efficiency of agricultural organizations.

The second chapter is devoted to a summary of world experience and guidelines for innovative economic development of the agricultural sector, analyzing the state and main trends in the European Union. The main conditions that characterize innovation development for choosing a strategy for the implementation of innovation processes for the EU's world leadership in the development of the bioeconomy and as an effective tool for solving environmental problems are examined in detail.

In the third chapter, the methodological tools for assessment and regulation of the regional market of food products and logistics services are examined through a presented assessment of the state, provision and monitoring of food security in the EU countries. The Global Food Security Index (GFSI) and a system of indicators according to the FAO methodology were used through an integral indicator to assess the average value at the world level and the level of food security in 6 (six) EU countries. The conclusion drawn is that the global food security system needs improvement, to improve the health and stability of the environment. The author introduces the concept of "innovative food product" and defines it, as he finds that there is a lack of definition in world practice. In their totality, the two concepts "innovators" and "innovative food product" make it possible to justify and classify innovative food products in the development of logistics systems in the agricultural sector.

In the fourth chapter, which is the most significant as a study, a Conceptual Model for innovative development of the agricultural and food sector in the context of the digital transformation of the European Union countries is presented. This model is derived on the basis of a developed program for managing commercial risks in the agricultural and food sector and forming an institutional mechanism for regional public-private partnership in the digital economy and creates a comprehensive view of the level of organizations in the agricultural and food sector. A matrix of indicators was used to calculate a coefficient for the effective development of organizations from the agricultural and food sector, and the impact of each structural element on the innovation development of the research object was evaluated through different matrix models and the factors affecting the increase in efficiency and innovation potential of the companies by using an integral approach.

In the conclusion, the main scientific results of the dissertation are indicated, on which the contributions of the dissertation work are built.

7. Contributions and significance of the development for science and practice

Scientific contributions:

– The approach to understanding the category "innovative food product" and "innovation process" has been improved, and based on the first, its interpretation is proposed as the presence of new consumer properties (novelty, improvement, modification), and for the second - an understanding of the innovation process as a constant transformation of technical (or technological) ideas into new technologies (or into their individual components) and their implementation in the agricultural and food sector in order to obtain new innovative products;

- Evidence by new means of significant new countries in existing scientific problems and theories, the theory being enriched with methodological tools for: 1) a comprehensive assessment of modern models for sustainable agricultural development in the countries of the European Union, including Poland, which corresponds to the fulfillment of the goals of the United Nations and ensuring national food security; 2) for the assessment of the logistics services market, including a set of measures, guidelines and tools for the creation of a common logistics market in the European Union and innovative development of the logistics infrastructure as a way of doing business; 3) to build trend models that contribute to dynamic analysis and identification of the main trends in the innovative development of the agricultural and food sector, as well as the market of biological products, and forecasting their sustainable production in the future.

A new scientific problem has been formulated and substantiated, and additional scientific development will be given to:

- The categorical-conceptual apparatus, by providing definitions for the terms "general agricultural policy", "innovation", "economic mechanism for innovative development of the agricultural and food sector" and creating new classifications;

- Methodological approach for a comprehensive analysis of the mechanism for innovative development of organizations in the agricultural and food sector from the point of view of ensuring food security, improving the level and quality of life;

- Methodology for comprehensive assessment of the innovation development of the agricultural and food sector, which allows taking into account the impact of innovation potential, innovation activity and innovation activity on the improvement of production efficiency by calculating the integral indicator - coefficient of innovation development of organizations;

- A mechanism for the formation and creation of inter-network innovation cluster structures based on the use of main base technologies, which allows to increase the competitiveness of products and the export potential of the agricultural and food sector.

Scientific and applied contributions:

- The concept of innovative development of the agricultural and food sector in modern conditions is substantiated;

- A strategy has been developed for innovation development on the cluster principle as the main factor in the mechanism of formation, functioning and innovation development, which optimally combines a sustainable system for the dissemination of new technologies, knowledge and products (the so-called "technological network");

- Measures and recommendations are proposed for the formation of an institutional mechanism for the development of public-private partnerships within the digital economy, which includes an intelligent electronic platform and a competence center for the formation of network connections.

8. Practical significance of the obtained results

The proposals and recommendations presented in the dissertation are aimed at improving the mechanism for innovative development of the agricultural and food sector in the context of regional economic integration, forming and functioning of an effective system for information provision and monitoring of food security, development of measures to ensure stable functioning and sustainable development of agriculture in the European Union, including in Poland.

9. Applicant's personal contribution

The dissertation represents an independent, complete and complete scientific study of a problem relevant to theory and practice. The theoretical and practical developments, conclusions and recommendations contained in the dissertation work and presented for defense are the result of the independent and independent work of the author. From the scientific publications issued in co-authorship, the author's personal scientific research is used in the dissertation.

10. Evaluation of publications on the dissertation work

The research results are presented in 35 publications (including 1 collective and 1 independent monograph).

- 1 monograph, which has not been presented, as the main habilitation work;

- 1 issue of a published book based on a defended dissertation work for the award of the ONS "Doctor";

- **15** articles and reports published in scientific publications, referenced and indexed in world-famous databases with scientific information (2 independent and 14 co-authored - with one co-author 7, with two co-authors 2 and with three or more co-authors 4 count). (Out of all 15 publications, 11 are in English and 4 are in Polish).

- **18** articles and reports published in non-refereed journals with scientific review or published in edited collective volumes (3 independent and 15 co-authored articles - with one co-author 5 articles, with two co-authors 9 articles and with three or more co-authors 1 article). (Out of all 18 publications - 2 are in English, 8 are in Polish and 8 are in other languages).

- **4** published chapters of a collective monograph.

There are **17** citations to the doctoral student's scientific publications.

11. Assessment of compliance with minimum national requirements

From the submitted Certificate of fulfillment of the minimum national requirements, it can be seen that the candidate exceeds the minimum national requirements - in general and by indicators - publications and citations for the acquisition of the scientific degree "Doctor of Sciences" in the professional direction 3.8. Economy.

12. Personal participation of the candidate

The assessment of the candidate's personal involvement in the dissertation research conducted and to what extent the formulated contributions and results obtained is that they are his personal merit. So far, I am not aware of any plagiarism in the evaluated dissertation work.

13. Abstract

The abstract is in Bulgarian, summarizes the dissertation work regarding content and quality, meets the requirements of the relevant regulations and reflects the main results achieved in the dissertation.

14. Critical remarks and recommendations

I have no critical remarks about the PhD student. The set of materials submitted for review shows that the candidate has made significant efforts to develop a dissertation work on a topic important for science and especially for practice and has published the most important results in publications in global databases, in non-refereed editions, and collective monographs.

15. Personal impressions

I do not know the candidate personally.

16. Recommendations for future use of dissertation contributions and results

I take the liberty of recommending to the doctoral student to publish a book based on the dissertation work, revising it in such a way that it can be evaluated not so much and only its scientific content, this has already been done and evaluated by the scientific jury, as the results achieved, conclusions and recommendations to reach those on whom the solution of research depends on a current and significant scientific problem for practice in the agricultural and food sector in Poland and in the EU.

CONCLUSION

The dissertation *contains scientific, scientific-applied and applied results, which represent an original contribution to science and meet all the requirements* of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB) and the Regulations for the Implementation of ZRASRB. The presented materials and dissertation results fully comply with the specific requirements of the Rules for the terms and conditions for obtaining the scientific degree "Doctor of Sciences" at the Higher School of Insurance and Finance.

The dissertation work shows that the candidate, Robert Jurczak, PhD *has* in-depth theoretical knowledge and professional skills in Professional Direction 3.8. Economics, demonstrating qualities and skills for independent conduct of scientific research.

Due to the above, I confidently give my **positive assessment** of the conducted research, presented by the above-reviewed dissertation work, abstract, achieved results and contributions, and *I propose to the honorable scientific jury to award the scientific degree "Doctor of Science" to Robert Jurczak, PhD* in field of higher education 3. Social, economic and legal sciences; Professional direction 3. 8. Economics.

18/04/2024

ndev, PhD