

OPINION

by Daniela Nikolova Bobeva-Filipova

of a dissertation for awarding the scientific degree "Doctor of Science"

in Field of Higher Education 3. Social, Economic and Legal Sciences Professional field 3.8.
Economics

Author: Bojena Kusz

**Topic: ECONOMIC EFFICIENCY OF AGRICULTURAL FARMS IN POLAND
DEPENDING ON ECONOMIC SIZE**

1. General description of the submitted materials

By Order No. 85. From 21.02.2025 of the Rector of Varna University of Insurance and Finance Prof. Boris Velchev, Ph.D., I have been appointed as a member of the scientific jury for providing a procedure for defending a dissertation on the topic "ECONOMIC EFFICIENCY OF AGRICULTURAL FARMS IN POLAND DEPENDING ON ECONOMIC SIZE" for the acquisition of the scientific degree "Doctor of Science" in Field of Higher Education 3. Social, Economic and Legal Sciences, Professional Field 3.8. Economics. The author of the dissertation is Bozhena Kush – candidate at the Department of Finance and Insurance

The materials handed over by Bozhena Kush include documents on Inventory submitted:

1. dissertation in electronic form and in 4 paper copies;
2. abstract of the dissertation in electronic version and in 4 copies on paper;
3. abstract in Bulgarian language in electronic versions in 4 copies on paper;
4. a declaration of originality and authenticity;
5. a reference on the fulfilment of the minimum national requirements for the acquisition of the degree of Doctor of Sciences in the respective professional field;
6. a list of publications on the topic of the dissertation;
7. copies of the publications on the topic of the dissertation in electronic version;
8. Abstracts of publications on the topic of the dissertation in electronic version; .
9. Summaries of the publications on the topic of the dissertation in Bulgarian in electronic version;
10. A list of all publications;
11. A list of citations of my author's publications by other authors;

The applicant has attached: one (1) habilitation monograph, one (1) published monograph not presented as a major habilitation work, ten (10) articles which have been published in refereed journals indexed in SCOPUS or in WoS, twenty-three (23) articles published in non-refereed peer-reviewed journals or published in edited collective volumes, one (1) published chapter of a collective monograph.

The documentation provided is in accordance with the requirements and allows for a comprehensive quantitative and qualitative assessment of the application for the degree of Doctor of Science

2. Brief biographical details of the candidate

The candidate's education and educational degree are in the field of agriculture, which has given her the opportunity to focus and gain capacity in this field to acquire the degree of "Doctor of Science". The candidate's professional experience is mainly in the academic field, and the combination of teaching and research contributes to the high quality of the wide publication activity.

3. Characteristics and evaluation of the dissertation

The dissertation, as well as the academic activity of the author, is dedicated to agriculture and its efficiency. The topic continues to be relevant and the different nuances in different countries make the topic important not only for Poland, but also in an international-comparative context. The relevance is also related to the growing insecurity and challenges to the food security of individual countries and the EU as a whole. It also concerns the external competitiveness of European agriculture in global markets, which are under stress due to the systematic violation of WTO rules. The subject and the object of the study are clearly defined, although the object is usually considered in Bulgarian studies to be the broader concept.

An important merit of the scientific work is that the main category – efficiency is considered and evaluated not in the traditional sense, but as a multidimensional assessment that reflects a much broader understanding of economic activity than conventional financial data. The author's context includes both financial and non-financial aspects of the activity. In the dissertation, an attempt is made to explain the significant differences in the academic literature, some of which are related to the influence of farm size and its efficiency, distinguishing this relationship between developed and less developed countries.

The factors driving the efficiency of agriculture in Poland have been systematised, taking into account the strong impact of EU agricultural policy and the fundamental change since the country's accession to the EU. The contradictory effects of this policy have been studied on the basis of the example of Poland, as the expansion of territorial subsidies for Polish agriculture may also lead to the

preservation of an unfavourable agricultural structure due to the reluctance of farmers running smaller farms to give up their land and therefore give up subsidies that provide a secure income.

In other cases, we would criticise the ignorance of macroeconomic factors in the study of efficiency factors, but the specificity of agriculture and the specific economic cycle, which is poorly correlated with the general economic cycle, further justifies the exclusion from the analysis of macroeconomic factors..

The dissertation is logically structured according to academic standards in the following parts:

The first part – the introduction – justifies the necessity, importance and relevance of the topic.

In the **second part**, the purpose, hypotheses and methodology of the research are defined.

The third part provides an in-depth and critical review of the literature, formulating a general consensus on the impact of farm size on their efficiency. In this part, the methodologies and models used by the different authors are also identified, which allows the author to develop his own methodology, capitalising on the achievements in the methodological field.

The empirical analysis is positioned in **Chapter Four**, where not only is the analysis of the data made, but it is also capitalised on the author's previous research. The results of the own research related to the current development are also summarised here.

The work ends with conclusions, on the basis of which the contribution points are formulated.

The goal of the scientific work has been achieved. The proprietary methodology used allows for objective assessment and reliability of the results of hypothesis testing. The rich empiricism and scientific instruments show the high degree of scientific maturity of the author.

4. Research Methodology

The chosen methodology corresponds to the complexity of the problem under study and makes it possible to draw significant results and conclusions about the role of various factors for the efficiency of farms. A nonparametric method based on the Malmquist Productivity Index was used to estimate changes in farm efficiency in individual economic classes by size. The author reaps the advantages of the index mostly in terms of its ability to divide the change in overall productivity by the change in technical efficiency and the change in the limit of technological possibilities. When using it, the critical remarks of some authors and the evaluation of the advantages by others have been taken into account.

5. Приноси и значимост на разработката за науката и практиката

The author has defined 8 contributions of the author, which are rather the results of scientific research and the significance of practice for science. They are correctly defined and reflect the advantages of the development.

As contributions in the narrow sense of this concept, according to Bulgarian academic practice, the following contributions of a theoretical nature could be formulated:

- Development and application of its own methodology for evaluating the efficiency of agricultural farms. The developed model includes thirty indicators of efficiency and profitability of production factors.
- The application of the DEA method for assessing the relative efficiency of farms in different economic classes has been tested. The method proves to be appropriate and useful for evaluating the level of performance of each unit tested.

I believe that the development has a significant contribution to the development of the theory of farm efficiency in the changing economic environment, and the defined methodology and tests of the models show that they can be used in future research by other authors. I highly appreciate the recommendations proposed by the author for the development of agriculture not only in Poland, but also in European agriculture in general.

6. Evaluation of the publications on the dissertation

It is difficult to describe the numerous publications of the author. A criterion for the high quality of publications is their high citation. The citations of 13 of the publications are indicated, with a total of 77 citations. The fact that most of them are published in international databases with the highest reputation shows their quality in terms of high academic standards. The most cited article is "Selected economic determinants of labour profitability in family farms in Poland in relation to economic size. 2022. B Kusz, D Kusz, I Bąk, M Oesterreich, L Wicki, G Zimon", which has been cited in 20 academic publications, half of which are by foreign authors and refer to agricultural research in global, European and national contexts.

An important advantage of the publications is that they relate to both purely theoretical aspects of the problems under study, as well as articles of practical and applied nature. Almost every publication ends with recommendations for agricultural policy and promoting increasing farming efficiency in Poland. Most of the articles are prepared in teams, which shows the high capacity of the candidate to unite around herself academic teams focusing on agricultural topics.

7. Assessment of compliance with the minimum national requirements.

The reference for the candidate's fulfilment of the minimum national requirements for the acquisition of the scientific degree "Doctor of Science" in the professional field 3.8. Economics shows that the candidate significantly exceeds the requirements. It is important to note that the most points were scored on one of the most important indicators – the author's citation rate of 975 points. In my practice, I have not met a candidate with such a high citation. Obviously, the candidate, Mrs. Kusch, is a recognisable and established author in the academic community in Poland.

8. Abstract

The abstract is built according to the requirements and contains all the necessary requisites. The abstract describes in too much detail the formulas and calculations of the applied model, which can be avoided. The clarity and logic in the exposition are impressive. The content strictly follows the content of the dissertation.

9. Critical remarks and recommendations

One of the most important conclusions of the study is that "improving competitiveness will require small family farms to move to larger-scale production to the level achieved by larger farms."

How the author think that could be achieved in Poland having in mind that "the economy of scale" can hardly be ignored in the case of large farms, that is, their natural advantage remains. Large farming may focus on some products like grain and may change the structure of agribusiness. Also large farms are changing the structure of agriculture, and the use of new technologies is not always related to ecological farming.

The relationship between farm effectiveness and efficiency could be assessed more clearly in the dissertation.

A critical approach in studying the small farming dominates in the dissertation and weakness of those are clearly identified. At the same time, however, the data on imports and exports of Polish agriculture demonstrate internal and external competitiveness. The author could expand his research in this area in the future.

I believe that the terminology should have been changed long ago and terms such as "countries of the former Soviet bloc" should have been removed.

CONCLUSION

The dissertation contains scientific, scientifically applied and applied results that 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 and the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria (RARARB).

The presented materials and dissertation results comply with the specific requirements of the Rules for the terms and conditions for acquiring the scientific degree "Doctor of Science" at the Higher School of Insurance and Finance.

The dissertation shows that the candidate Bozena Kush has in-depth theoretical knowledge and professional skills in Professional Field 3. 8. Economics, demonstrating qualities and skills for independent research.

In view of the above, I confidently give my positive assessment of the research carried out, presented by the above-reviewed dissertation, abstract, results achieved and contributions, and I propose to the honorable scientific jury to award the scientific degree of "Doctor of Science" to Bozhena Kush in Field of Higher Education 3. Social, Economic and Legal Sciences; Professional field 3. 8. Economy.

31.03. 2025

Reviewer

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(Prof, Dr, Daniela Bobeva)