

## **REVIEW**

by prof. Virginia Ivanova Zhelyazkova, DSc

from VUZF University - Sofia

of a dissertation for the award of the scientific degree "Doctor of Sciences"

in Higher Education Area 3. Social, economic and legal sciences

Professional Field 3.8. Economy

Author: Katerina Volkova

Topic: "Theory and methodology for the development of the aggregate financial and economic potential of organizations in the agri-food sector in the conditions of digitalization" (in the original: „Теория и методология развития совокупного финансово-экономического потенциала организаций агропродовольственной сферы в условиях цифровизации“). The work is presented in Russian.

### **1. General description of the presented materials**

By order No. 268 of 27.06.2023 of the Rector of the VUZF University, Prof. Boris Velchev, DSc, I have been appointed as a member of the scientific jury to ensure a procedure for the defense of a dissertation on the topic: "Theory and methodology for the development of the overall financial and economic potential of organizations in the agri-food sector in the conditions of digitalization" (in original : „Теория и методология развития совокупного финансово-экономического потенциала организаций агропродовольственной сферы в условиях цифровизации“) for the acquisition of a scientific degree "Doctor of Sciences" in the Higher Education Area 3. Social, economic and legal sciences, Professional Field (PF) 3.8. Economics. The author of the dissertation is Dr. Katerina Volkova - a candidate from the "Finance and Insurance" department at VUZF.

The materials submitted by Dr. Volkova include the following documents:

- Curriculum Vitae;
- a copy of the diploma for the acquired educational and scientific degree "Philosophiae Doctor" (Ph.D.);

- dissertation for the award of the scientific degree "Doctor of Sciences", developed in the Russian language;
- abstract of the dissertation in Russian and in Bulgarian languages;
- a list of the applicant's scientific publications, full-text copies and their abstracts;
- report on the fulfillment of the national minimum requirements for awarding the scientific degree "Doctor of Sciences" under PN 3.8 Economics;
- declaration of originality.

The candidate has submitted 2 monographic studies (one based on the text of the dissertation for the award of the scientific degree "Doctor of Sciences") and 15 articles and reports in scientific journals.

The documents are generally in good condition, but I have one note regarding the correctness of the reference on the scientific publications with which the applicant participates in the procedure - there is a difference between the list of publications submitted as a separate document, the list of publications in the abstract and the reference of scientific publications of the candidate in the form of the minimum mandatory requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the Regulations for its implementation. In the first list there are two monographs 15 articles and reports in scientific journals, in the second 131 publications, in the third – 1 habilitation thesis (which is not required under the current procedure and is not subject to assessment), 1 monographic research (in actuality - a book based on a dissertation for the award of the scientific degree “Doctor of Sciences”), 39 articles and reports (some of which are inaccurately distributed in the category "...published in scientific publications, indexed in world-known databases with scientific information"), two chapters in collective volumes. When counting the necessary number of points to fulfill the national minimum requirements for awarding the scientific degree "Doctor of Sciences" on all three lists, the requirements are exceeded, there are no doubts about the candidate's qualities for independent conduct of scientific research, but the references should have been correctly prepared in a way that there are no differences between them. For the purposes of the procedure, it is required to submit those publications with which the candidate is participating, and not all of the publications that she has written in general.

## **2. Brief biographical data about the candidate**

Dr. Katerina Katsiarina Volkova was born on March 9, 1988 in Belarus. She graduated with a degree in Accounting in 2010 and obtained a Master's degree in Economics the following year at Mogilev State University of Food Technology in Belarus. Dr. Volkova continued her academic development at the same university, defending her doctorate in 2015 and holding the academic position of "associate professor" from the following year onwards. The candidate has serious experience in conducting scientific research, which she demonstrated in her dissertation for the

award of the scientific degree "Doctor of Sciences", as well as in her rich scientific output of books, articles and reports in scientific journals in various languages .

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

The dissertation submitted for review and its abstract were developed in Russian language on a topic that has been consistently relevant for the last thirty years - theory and methodology of the overall financial and economic potential of organizations from the agri-food sector in the conditions of digitalization. The topic is gaining importance especially in recent years with the intensifying processes of digitization in all spheres of economic life.

### **4. Knowledge of the problem**

The dissertation presented for review presents an in-depth analysis of an important issue for the global economy, based on a detailed and critical study of numerous scientific and statistical sources on the subject. The analysis clearly shows the high awareness of the candidate, her commitment to the issue and the rich research experience she possesses. The excellent knowledge of the scientific literature on the researched topic is also indicative of this, evident both from the text of the work and from the impressive list of scientific publications cited in it - a total of 475.

### **5. Research methodology**

The methodology of the research in the dissertation is appropriately chosen for the purposes of the work - it is of mixed nature - a hybrid between methods from the families of qualitative and quantitative analyses. From the field of qualitative methods, the critical analysis, the abstract-logical method, the summary of scientific experience, and the comparative analysis were applied. Among the quantitative methods used are economic-mathematical modeling, correlation analysis, mathematical-statistical analysis using MS Excel, and forecasting. The application of all these methods together enriches the scientific qualities of the dissertation and contributes to the high value of the conclusions, results and contributions in it.

### **6. Characterization and evaluation of the dissertation**

The paper consists of a total of 440 pages. Structurally, it is formed by an introduction, five chapters, a conclusion, a list of references, and two appendices. A total of 168 tables and as many figures are presented within the framework of the text. The used literature counts an impressive 475 sources of different nature - monographs, articles, reports and other scientific publications, online sources, etc. The paper begins with an introduction, within which the candidate introduces the research topic. The relevance, object, goals and tasks of the research are clearly defined. The thesis of the work is not formulated, which I recommend to have been done. This could have been

done easily - there is sufficient dissertability of the topic, as well as analyticity, to derive the thesis, which is the academic practice for such kind of works.

The first chapter (section) has an introductory nature to the topic - it is dedicated to some basic points in the field of the methodology of the development of the total financial and economic potential of the organizations. Here, the candidate examines theoretically various categories, such as "potential" in economic terms, "total financial and economic potential of the organization", especially in the agri-food sphere and others. The analysis then moves on to some basic methodological approaches to the assessment of this potential.

The object of the second chapter is the methodological toolkit for the evaluation and development of business models for the digital development of the overall financial and economic potential of the organization. In this part of the dissertation, the candidate analyzes the essence of digital economy and digital transformation, their structural elements, various classifications and assessments of their significance. Further, from a theoretical perspective, the analysis goes on to outline the relationship between digitization and the innovative development of the economy. A multi-criteria model for digital development of the aggregate financial and economic potential of organizations from the agri-food sector is presented.

Within the third chapter, the candidate analyzes the overall financial and economic potential of the agri-food sector in the Republic of Belarus. First, the current state and trends in the development of agrarian business are presented, then the analysis moves on to presenting the leading trends in the development of the processing industry, then the author examines the conditions and factors for increasing the efficiency of the use of the financial and economic potential of the organizations in the sphere she researches. The chapter ends with the methodology proposed by the candidate for its comprehensive assessment.

In the focus of the fourth chapter of the dissertation submitted for review, the forecast models and trends for sustainable growth of the potential of the agri-food sector by individual types of activities are placed. Here, the candidate presents her forecasts for the development of the agri-food sector using the example of the production of meat and meat products. She then presents and analyzes the global trends and potential for sustainable growth in the production of milk and dairy products and then fruit, vegetables and potatoes.

In the last, fifth chapter, the candidate presents the conceptual frameworks of the innovative development of the overall financial and economic potential of the organizations from the agri-food sector. Here, some basic recommendations for the sustainable development of the global and national food production are outlined. After that, the strategic orientations of the development of the export potential of the world food market are presented. The mechanism of the sustainable innovative development of the total financial and economic potential of the organizations from the agri-food sphere of the Republic of Belarus has been clarified.

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

The main contribution of the candidate within the framework of the dissertation submitted for review is the justification of the meaning of “potential” of the organization from the agri-food sector as instrumental for the realization of its financial and economic potential in the context of digitalization. This contribution can be decomposed into separate elements that explore specific aspects of the functioning of this type of organization, the main ones among which I believe are the following:

- A toolkit was developed to assess and increase the effectiveness of these organizations specifically in the context of Belarus;
- A methodological approach has been developed for a complex analysis of the formation and development of the financial and economic potential of these organizations;
- The existing toolkit for complex assessment of trends driving the development of these enterprises has been improved;
- A methodology is proposed for the overall assessment of the financial and economic potential of these organizations based on the calculation of an index for the development of the agri-food sector.

This makes it possible to compare the performance of different enterprises in the sector and to rank them according to success rates.

These contributions are mainly scientific-applied in nature, which emphasizes the importance of the dissertation for the day-to-day practice, to the specific problems to which it offers solutions.

## **8. Evaluation of publications on the topic of the dissertation**

Currently, candidate Dr. Volkova is the author of a total of 131 scientific publications, including 2 collective and 2 individual monographs. I rely on the list of scientific publications attached as a separate document to the applicant's documentation and I assume that in the present procedure the applicant participates with two monographs and 15 scientific articles and reports.

This exceeds the minimum national requirements of the LDASRB and the Regulations for its implementation for awarding of the scientific degree "Doctor of Sciences" in PF 3.8 Economics.

## **9. Assessment of the compliance with minimum national requirements**

The candidate fulfills and exceeds the minimum national requirements of LDASRB and the Regulations for its implementation for awarding of the scientific degree "Doctor of Sciences" in PF 3.8 Economics, evident from the reference for the scientific publications and for the citations of the candidate's research output.

## **10. Personal participation of the candidate**

At the moment, there is no information that would give grounds to question the authenticity of the presented dissertation work and publications of candidate Dr. Volkova.

### **11. Abstract**

In general, the abstract is prepared in accordance with the accepted good academic practices and correctly presents the dissertation in a concise form within a total of 57 pages. It systematizes the main points of the dissertation. However, there is no separate part dedicated to the scientific and scientific-applied results and contributions of the candidate, only the conclusions of the research are drawn up. Contributions can be derived from them by way of logic. They are undoubtedly there, but not explicitly presented.

### **12. Critical remarks and recommendations**

Apart from the recommendation to explicitly state the thesis in the introduction, I have no substantive comments on the candidate's dissertation. It undoubtedly has a high scientific value. I have a recommendation regarding the layout of the list of publications for participation in the procedure, which recommendation I substantiated in point 1 above, as well as regarding the need for a separate section in the abstract of the dissertation dedicated to the scientific and scientific-applied contributions in the dissertation of the candidate.

### **13. Personal impressions**

I do not know the candidate personally, but I have excellent impressions of her based on her rich scientific output.

### **14. Recommendations for future use of the contributions and results of the dissertation**

I would recommend considering publishing parts of the work in English in prestigious indexed journals in order for the author to achieve greater recognition of the results of her work.

## **CONCLUSION**

The dissertation of candidate Dr. Katerina Volkova contains scientific and scientific-applied contributions that meet the requirements of the LDASARB and the Regulations for its implementation. The presented materials and dissertation fully comply with the specific requirements of the relevant Regulations of VUZF University.

The dissertation is an attestation that the candidate has in-depth theoretical knowledge and professional skills in PF 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, abstract, achieved results and contributions, and I propose to the honorable scientific jury to award the scientific degree "Doctor of Sciences" to Dr. Katerina Volkova in the Higher Education Area 3. Social, economic and legal sciences; Professional Field 3. 8. Economics.

31 August 2023

Reviewer: .....

(Prof. Virginia Zhelyazkova, DSc)