

OPINION
on a dissertation
for the acquisition of an educational and scientific degree "doctor"

The opinion was prepared by: Associate professor Nikolay Penev Ivanov, PhD
Thracian University - Stara Zagora, Bulgaria, Faculty of Economics, Department of Economics; Scientific field 3. Social, economic and legal sciences; in a professional direction: 3.8. Economics; scientific specialty: "Accounting, control and analysis of economic activity"; determined according to Order No. 681 of July 10, 2023 of the Rector of the Academy of Economics "D. A. Tsenov" - Svishnov as a member of the scientific jury.

Author of the dissertation: PhD student Elena Dimitrova Tashkova
Academy of Economics "D. A. Tsenov" – Svishnov, Faculty of "Manufacturing and Commercial Business", Department of "Agrarian Economics"; Scientific field 3. Social, economic and legal sciences; in a professional direction: 3.8. Economics; scientific specialty: "Economics and management (agrarian economy)".

Dissertation topic: "Opportunities for applying digital technologies in the agricultural sector"

I. General presentation of the dissertation

The dissertation submitted for evaluation by doctoral student Elena Dimitrova Tashkova on the topic "Possibilities of applying digital technologies in the agricultural sector" is a logically bound and in-depth study, developed in a total volume of 185 standard typewritten pages, of which 13 pages are appendices.

The main text of the dissertation includes an introduction, three chapters, a conclusion, a list of used tables, figures and a list of used literary sources. The dissertation is illustrated, containing 31 tables and 22 figures.

The research is well balanced in terms of structure. The dissertation work is properly constructed, which allows with the necessary logical sequence to explore the possibilities of applying digital technologies in the agricultural sector.

The used literature, which has been studied by the doctoral student in the research process, is significant in volume and has been selected among titles in the field of research with high relevance. A total of 111 sources are cited, 85 of which are in Bulgarian and 26 in a foreign language. A successful attempt has been made to demonstrate the author's awareness of the research on the subject, both by Bulgarian and foreign authors. The sources correspond to the thematic focus, and no fraudulent use of foreign texts has been found.

II. Assessment of the form and content of the dissertation

The in-depth analysis of the dissertation allows us to conclude that research on a similar topic is relevant in time. The chosen topic is dissertable and allows to make reasoned conclusions, proposals and to formulate contributing aspects.

The facility is focused on the applicability and development of digital technologies. They are expected to contribute to increasing the efficiency of the production processes of new goods and services in the economy, particularly in the field of agriculture. The subject of the dissertation research is the possibilities of applying digital technologies in the agricultural sector.

The research thesis is well-articulated, arguing that the use of digital technologies is needed to develop sustainable solutions to the current and future challenges of managing the agricultural sector.

The main objective is adequate to the subject and object of research. On the basis of the object, subject and thesis thus defined, the dissertation aims to investigate the genesis of the application of digital technologies in agrarian business.

The purpose and tasks of the research are precisely formulated, which is a prerequisite for in-depth conclusions and recommendations regarding the object under consideration.

The language and style of presentation in the dissertation work are at a good level. There are no repetitions or deviations in the presentation. The work is properly structured. There is a proportionality of its individual parts. The scientific toolkit is suitable for the specific problem and allows to draw reasoned conclusions.

The literary sources used are accurately cited in accordance with the requirements. No significant deviations from the norms of scientific and professional ethics were found.

The presented abstract, in the amount of 38 pages, fully and accurately presents the content of the dissertation work. It is written in a clear, comprehensible and scientifically sound style, reflecting the main points of the dissertation and giving a clear idea of what the PhD student has achieved.

The publications related to the dissertation were developed independently, and their total number is three (one study, one article and one conference report).

III. Scientific and scientific-applied contributions of the dissertation work

The dissertation contains the positive aspects and achievements of the author, which can be characterized as contributions to theory and practice. The author's scientific achievements stand out for their originality and practical applicability. The more substantial scientific and applied contributions are well articulated:

- An author's interpretation and definition of the concept of digital technologies is proposed.
- A model has been developed for the implementation of digital technologies in agricultural holdings.
- The benefits of the implementation of digital technologies in the management of economic processes have been studied, and the research is particularly concentrated in the agricultural sector.

VI. Criticisms, opinions, questions and recommendations

A bolder, clear, strong and reasoned author's presence in subsequent developments would be a prerequisite for a higher quality research output.

At the end of my opinion, I would be happy to know the opinion of the author on the following questions of interest to the entire audience:

1. What is the impact of digital technologies on employment and human resource management in the agricultural sector?
2. "Internet of things" - how is it currently applied in Bulgarian agriculture (give additional examples)?
3. What is the future application of artificial intelligence in agriculture?

The indicated remarks, recommendations, as well as the presented evaluations in this opinion do not reduce the value of the analyzed materials, but should be perceived as recommendations in the future development of the author.

V. Summary evaluation of the dissertation work and conclusion

Based on the in-depth analysis of the developed dissertation work, it can be confidently stated that it is a scientific development with significant achievements. The contributions, scientific merits and content of the dissertation present the author and his results in a positive light.

The research tasks have been successfully completed, and the set main goal has been achieved. Scientific and scientific-applied contributions in the dissertation enrich scientific knowledge and support practice.

The materials presented to me for the preparation of the present opinion comply with the ZRASRB, PPZRASRB and the Regulations for its application in the Economic Academy "D. A. Tsenov" - Svishtov.

Therefore, I allow myself, completely convinced and objective, to give my positive assessment and I propose to the respected members of the Scientific Jury to award the

educational and scientific degree "Doctor" in scientific field 3. Social, economic and legal sciences; in a professional direction: 3.8. Economics; in the scientific specialty "Economics and management (agrarian economy)" of Elena Dimitrova Tashkova.

01.09.2023

Stara Zagora

The signature was deleted on the basis
of Article 4, Paragraph 1 or Regulation
679/2016 r.
Signature: (Associate professor Nikolay Penev, PhD)