



REVIEW

On a dissertation work for obtaining the educational and scientific degree of doctor in:

Field of higher education: Social, economic and legal sciences

Professional direction: 3.8. Economy

Scientific specialty: Production organization and management (agriculture and subsectors)

Author of the dissertation: Lela Slave Krastevska - doctoral student of independent training at the Department of "Management and Marketing" at the Agrarian University - Plovdiv.

Dissertation topic: "Strategic risk management in the investment process of agricultural holdings"

Reviewer: Prof. Dimitar Ivanov Kostov - 3. Social, economic and legal sciences 3.8. Economics, appointed as a member of the Scientific Jury by Order RD - 16 - 581 of 22.05.2023 of the Rector of the Agricultural University - Plovdiv and at a meeting of the Scientific Jury.

1. Brief introduction of the candidate

The candidate is a citizen of the Republic of North Macedonia. He has a bachelor's degree in customs management and trade, obtained at the University of Macedonia in 1998.

He also has a master's degree in business administration. She specialized at the International University of Monaco and the University of New York - USA, as well as at the European Development Bank.

The PhD student participated as an expert in various international programs and events. Has excellent skills in several languages. She has held senior management positions and received many awards.

2. Relevance of the problem

The investment process is of particular importance for every sphere of the economy. This process is both difficult and beneficial for the agriculture industry. This industry is significantly affected by natural conditions and therefore needs strategic risk management.

In this regard, it can definitely be said that the dissertation work is a very important scientific study with great practical application.

3. Purpose, tasks, hypotheses and research methods

The thesis of the dissertation is directly related to the approach of strategic management of the investment process in agriculture. It is related to the analysis and evaluation of the existing tools to minimize the risk and to achieve the maximum effect of the investments made in the industry.

The goal is very well defined. It fully corresponds to the title of the study and provides an opportunity to assess the state of risk, as well as the existing methods for its management. By fulfilling the set goal, it is possible to manage the risk and investment process of rural farms.

To achieve the goal, the following main tasks are solved. They are arranged in the correct sequence.

The first task is related to determining the economic nature of the agricultural holding as a production system.

The second task clarifies the methodological approaches, as well as the direct methodological questions of the research. The effect of the investment process is assessed.

An analysis of the sources of risk in the industry was carried out based on the specified third task.

As a conclusion of the development is the presented toolkit for managing the investment process in agricultural holdings.

The subject and object of the research are precisely and clearly defined. They are indicated in the title of the dissertation.

Hypotheses are defined through research approaches.

The methods used in the research are traditional and modern.

4. Transparency and presentation of the obtained results

The dissertation work is developed in a classic form - an introduction, three chapters and a conclusion. The total volume of 125 pages. The text material is illustrated with 10 figures, 5 tables and appendices. The used literary sources – 142 are publications covering the entire problem.

The rationale for the development is made in the introduction. This allows those familiar with it from the very beginning to get a more complete idea of the developed problem and the way to solve it.

At the beginning of the development, a good analysis was made of the sources of risk in agriculture that would arise with any investment. These possible risks are defined as:

- The slower turnover of invested capital
- Difficulties in capitalizing the costs of permanent plantings
- The influence of the seasonality of the production process, etc.

5. Discussion of results and used literature

Makes a good impression on the literature used. Special attention is paid to the study of investment policies. The author states that the main methods that can be used for investment analysis are:

- Expenses
- Returns
- Benefits

In addition to these three main methods, the author indicates others such as:

- Redemption period
- Rate of return
- Net present value
- Internal rate of return

These additional methods included in the study can be cited as personal contributions of the author. The PhD student has pointed out the advantages and disadvantages of these methods.

I believe that the literature review was done very professionally, which affects the general development of the problem in the right direction. The author pays particular attention to the examination and discussion of risk management strategies. This is very correct considering that this question is the basis of the dissertation work.

A good analysis of the sources of risk in agriculture has been done. The risk characteristics are properly systematized in the development. The author groups them into two groups - systematic and non-systemic. In this regard, a probabilistic model has been developed, which serves to assess the risk in a high degree of probability. I believe that this is one of the main scientific contributions of the Ph.D.

The types of risks in agriculture are analyzed in detail. The risk management strategies are discussed in more detail and are grouped into the following groups:

- Prevention strategies
- Strategies to mitigate the potential adverse consequences of the event
- Coping and mitigation strategies

The author points out that farmers have the opportunity to choose from available and possible strategies.

The PhD offers a framework set of tools that the farmer can choose to properly assess the risk of investments. These tools are:

- Scenario analysis
- Rating system
- Risk mapping
- Payment matrix
- Decision tree
- Portfolio of real options

These tools provide an analytical framework for agricultural holdings through which quick decisions can be made in situations that are associated with uncertainty.

The author states that a theoretical model can be developed to assess strategic uncertainty based on the existing potential and development perspective. He believes that farmers must constantly react and change their investment

model. In this regard, it is possible to change and direct investments in accordance with a change in the market. This should be done on the basis of sufficient information that is well processed.

Based on the analysis of possible different options, the author of the study indicates the following options of approaches, which are:

- Investment postponement
- Temporary interruption and subsequent restart of the investment
- Rejection of the investment

The dissertation presents a modern methodology that can be used to manage uncertainty when making strategic investment decisions in agriculture. The author believes that this methodology is more suitable for small farms.

Based on the developed concept of agriculture, modern innovation and knowledge systems are analyzed. The PhD student emphasizes the need to implement innovations in rural areas mainly through small farms.

The thesis emphasizes the relationship between innovations and decision-making options from the point of view of their application in agriculture. The analysis revealed the relationship between uncertainty in farm management and investments in the direction of different approaches with risk analysis. This is a contributing point in the dissertation work. Another contributing point I believe is the consideration of risk management strategies and indicating which of them are the most favorable to implement. This is best seen in the analysis comparing traditional methods with that of real options.

6. Contributions of the dissertation work

I accept the reference to the contributions of the dissertation given by the author, but I will take the liberty of summarizing them as follows:

I. Scientific contributions

1. A conceptual framework for risk analysis and assessment in the investment process in agriculture has been developed.
2. A strategy for managing investment risk in agriculture based on the method of real options is proposed.

II. Scientific and applied contributions

1. The essence of the investment risk in agriculture has been clarified.
2. The main risk management methods in the investment process in agriculture have been analyzed and evaluated.

7. Critical Notes and Questions

Recommendation: In future publications, the author of the dissertation should consider global political processes as an important risk factor for investments in agriculture.

8. Published articles and citations

The doctoral student has published three scientific publications that are directly related to the dissertation work. They are sufficient to present the development as a completed dissertation work.

The abstract corresponds fully to the materials included in the dissertation work.

CONCLUSION

The dissertation presented by Lela Slave Krastevska is a fully completed scientific study.

Based on the various research methods learned and applied by the doctoral student, the correctly conducted research, the summaries and conclusions made, I consider that the presented dissertation meets the requirements of the ŽRASRB and the AU Regulations for its application, which gives me reason to evaluate it POSITIVELY.

I take the liberty of proposing to the honorable Scientific Jury to also vote POSITIVELY and award Lela Slave Krastevska ONS a doctorate in the scientific specialty "Organization and management of production (agriculture and subsectors).

15.06.2023

REVIEWER:


Prof. Dimitar Kostov, Ph.D