

REVIEW

From: prof. Valentina Lyubenova Nikolova-Alexieva, PhD
University of Food Technologies - Plovdiv,
Professional direction 3.8 . Economy
Scientific specialty "Economics and Management"

Subject: Dissertation for the award of an educational
and scientific degree "**doctor**" in the field of higher education
3. Social, economic and legal sciences
Professional direction 3.8 Economics
Scientific specialty "Economics and management
(industry)"

Reason for presentation of the review: participation in the composition
of the scientific jury for the defense of the dissertation work,
according to the Order No. P21-1116 of 25.05.2023 of the
Rector of the Plovdiv University "Paisii Hilendarski" (PU)

Author of the dissertation : STEFAN DEYANOV GEORGIEV

Topic of the dissertation : "CHANGES IN THE QUALITATIVE AND
ECONOMIC INDICATORS IN THE WINE
PRODUCTION AT THE USE OF
ENZYMES PREPARATION "

1. Information about the PhD student

Stefan Deyanov Georgiev was educated in the doctoral program "*Economics and Management (Industry)*", in professional direction 3.8. "*Economics*" at the Department "*Management and Quantitative Methods in Economics*", Faculty of Economic and Social Sciences of the PU. The training is financed by the state and carried out on a regular basis. The doctoral student completed the activities provided for in the Individual Study Plan on time and was dismissed with the right of defense, according to the Order of the Rector of the PU.

Stefan Georgiev obtained a higher education as an engineer-technologist majoring in "Wine and Beer Technology" at the Higher Institute of Food Industry - Plovdiv in the period 1996-2001. In 2023, he graduated with a second master's degree in "Financial Management" at the Plovdiv University "Paisiy Hilendarski" - Plovdiv. During the period 01.03.2020 - 01.03.2023, he is a full-time doctoral student at the same university in the doctoral program "Economics and Management (Industry) ".

In the years since 2009, he has gained solid practical experience as consultant at "Daniel Wines " and " Sakar Winery ", as an organizer production at "Vinarsko imienie Lyubimets" EOOD and as a technological engineer at "Tera Tangra" EOOD - Harmanli. From 2020 until now, he is the deputy manager of "Vinar BG" EOOD - the city of Haskovo.

Stefan Georgiev possesses organizational skills and competencies as a manager - projects for building and renovating enterprises; human resource management; management of quality control systems; ability to resolve conflicts, define goals; time management.

Therefore, the doctoral student possesses a wide palette of knowledge and skills that give him an excellent basis for in-depth research work in the field of economics and management in the wine industry.

2. General characteristics of the presented dissertation work

In terms of content, the dissertation deals with an extremely topical management problem related to the study of the relationship between successful management and the synergistic effect of managing a portfolio of innovations and the influence of dynamism, complexity and globalization of markets for the adoption of a new management concept based on a project-oriented approach , aimed at increasing organizational flexibility for customer orientation, constant readiness to innovate and create competitive advantages. In the conditions of competitive struggle, it is essential for Bulgarian wine producers to maintain their market positions and ensure conditions for successful development. In this regard, important factors are the use of scientific research approach and development of innovative technologies. The use of enzyme preparations has emerged in recent decades as one of the significant innovations. There are still no comprehensive studies in the scientific literature regarding the changes in the quality and economic indicators in winemaking when using enzyme preparations, and there is a need to study the prerequisites for the application of industrial enzyme preparations in different winemaking methods and for different types and categories of wines .

In this regard, it can be concluded that the topic of *the dissertation was very successfully chosen. It is extremely up-to-date, dissertationable and has great*

practical significance. The PhD student has justified this importance and relevance very well.

The dissertation analyzes scientific achievements in the field of strategic management and the application of innovations as a factor and mandatory condition for increasing economic efficiency and competitiveness in the conditions of a dynamically changing environment. ***A total of 113 sources*** are listed in the list of used literary sources, of which ***65 are in Bulgarian, 27 are in English, 4 are in Russian, 3 are in French and 14 are electronic sources.***

The indicated literary sources are up-to-date and directly related to the topic of the dissertation work.

The dissertation presented for review shows the author's ability to select appropriate Bulgarian and foreign literary sources and to carry out an overview and selection of the necessary information, to choose, analyze and adapt classic and modern methods for researching good project management practices.

The presented dissertation labor is in volume from ***292 pages***. In structural attitude includes ***introduction, 3 chapters, conclusion*** and ***bibliography***.

In the ***introduction*** of the scientific work, the main goal and six logically related tasks for its achievement are formulated. The object and subject of the research are correctly defined, as well as the main hypothesis of the author, according to which "Not for all types and qualities of wine, the use of enzyme preparations in their production is economically justified."

Chapter one is focused on the author's various concepts and views, on the basis of which he brings to a theoretical level the economic and technological aspects of wine production. The key concepts of efficiency of the enterprise's activity, investments and investment process are considered. Two short and accurate summaries regarding the efficiency of the winery's activity have been formulated. The examination of the technological aspects of winemaking is in the following sequence: general information on the structure, composition and development of grapes; factors affecting grape quality; red wine technology; enzyme preparations in winemaking. Based on the information provided, the doctoral student formulates six conclusions regarding the technological aspects of winemaking. The author's firm position regarding the production of high-quality red wine is evident. One of the main contributions of this chapter is the proposed conceptual model that shows the logical connections and dependencies between the fundamental stages that are passed through to reveal the influence of enzyme preparations on the quality of red wines produced and, accordingly, on the economic indicators of production.

Chapter two presents the methodological issues and the experimental study of the influence of enzyme preparations on quality indicators in winemaking. The main contribution in this chapter is the presented author's

experiment to study and compare the effect of the application of industrial enzyme preparations in different methods of vinification of grapes of the Mavrud variety. The obtained indicators determining the quality of the produced red wines were studied. An analysis was made of the results of the implemented 4 series of experimental variants: series A – extraction in the mode of blocked alcoholic fermentation; series B – extraction in simulated alcoholic fermentation mode; series C – extraction in the mode of ongoing alcoholic fermentation; series D – extraction in the mode of ongoing alcoholic fermentation. Methodological decisions were made and conclusions and recommendations were made regarding the use of the investigated enzyme preparations.

One of the merits here is the methodology of the empirical study proposed, considering the initial conditions, the generalized criteria for evaluating the results and the stages of analysis of the empirical study.

Chapter three is devoted to results from conducted practical research. The changes of the economic indicators in wine production with the use of enzyme preparations have been studied. For this purpose, data from the activity of specific medium-capacity wineries located in Southern Bulgaria were used. The characteristic features of the two enterprises are the following:

- Enterprise 1 - does not use enzyme preparations, works with known classic technologies for wine production and uses the appropriate technological equipment for this.
- Enterprise 2 - uses enzyme preparations, new technologies and their corresponding technological equipment.

The main 14 indicators for determining economic efficiency were calculated, based on the activity of the two enterprises at minimum and maximum values of their indicators. The values of the indicators were calculated according to the basic 7 methods for determining the effectiveness of investments. Based on the obtained results, the doctoral student formulates 8 conclusions regarding the expediency of the use of enzyme preparations in the production of different types of wines. Based on the initial data from the approvals with a classic and innovative type of enterprise, recommendations are formulated for choosing technologies for investments in accordance with previously set goals.

In *conclusion* are formulated summaries , conclusions and achievements results on the base on proposed ata from PhD student methodology for the expediency of the use of enzyme preparations in the production of different types of wines.

The tasks are performed in progress on the research , and the formulated research this is proven . The structure on the dissertation research is logical built and conforms on placed purpose and tasks .

3. Evaluation of the obtained scientific and scientific-applied results

➤ *In the theoretical part of the dissertation research :*

The doctoral student has carried out a serious literature review and made a synthesis and in-depth classification of the economic and technological aspects of wine production. Good practices and tools for the implementation of the project approach and innovations in the management of enterprises from the wine sector are summarized and argued. The systematizations and summaries made show *thoroughness and conscientious work with literary sources*, skills in applying analytical and deductive techniques for processing a significant amount of information with various research methods. All citations and comments of the author are correctly displayed, which makes it easier to refer to the cited sources. The author's participation in the discussions on the researched problems *is active and reflects skills to express one's own critical thinking and to formulate new conclusions and findings*.

➤ *In the methodological part of the dissertation research :*

The PhD student has chosen an appropriate methodology and research toolkit that matches the complex, multidimensional nature of the study. To prove the raised author's hypothesis, ***the theoretical-methodological and empirical approach***, building on already done studies, theoretical analysis and synthesis, comparative analysis, the method of observation, experimental and empirical method, as well as inductive and deductive methods concerning generalization and derivation of the essential characteristics of the main concepts. To achieve **the main goal** and set **tasks**, *a grouping method* was used (authors' opinions, methodological characteristics, influencing factors, companies); *method of analogy and graphic methods*. The methodological framework includes:

- questionnaire survey, carried out using the "face-to-face" method with pre-selected respondents among the specialists of the branch and the owners of commercial establishments ;
- weighting coefficients were introduced to determine the importance of influence and a point system was developed to assess belonging to a category;
- experimental data obtained after studying and comparing the effect of the application of industrial enzyme preparations in different methods of vinification of red grapes were used.
- the values of indicators determining the quality of the produced red wines were measured and stored in a database.
- the relationship between the changes in the quality indicators and the changes in the economic indicators caused by them was established.

- an analysis and evaluation of the economic effect of the production activity of the winery, the investment in real assets and the overall efficiency of an investment project was carried out.

I give a very high assessment of the literature review, the methodology used, as well as in terms of the implementation of the set tasks for the achievement of the research objective.

➤ ***In the applied part of the dissertation research :***

The doctoral student completely correctly applies the methodology proposed in the second chapter for conducting the empirical research. The results of the conducted applied research are presented at a very good level with evidence and analytical material sufficient in volume, scope and content. One of the merits here is that, based on the data analysis, conclusions are formed and recommendations are made for choosing technologies for investments in accordance with previously set goals. The approval of the proposed methodology is expected to lead to the improvement of innovation management and an increase in economic efficiency with the application of enzyme preparations in the production of various types of wine , from there to influence the financial results, respectively to the achievement of high competitiveness of business organizations from the wine sector.

The work contains specific results and empirical evidence that objectively reflect the real achievements of the conducted scientific research.

The presented dissertation is a comprehensive, completed research on a current and significant social-management problem. In the course of the research, the most significant theoretical and practical problems related to the identification of basic tools for the analysis and evaluation of product innovations for the improvement of quality indicators and economic efficiency and the resulting recommendations were raised and discussed.

All of this gives reason to conclude that Stefan Georgiev has an excellent knowledge of the modern literature on the researched problem and possesses the necessary theoretical level for researching and analyzing economic problems, formulating scientific theses, verifying through empirical evidence and forming scientific generalizations.

Stakeholders of the research can be educational and training organizations for the purposes of professional training, business organizations from the wine sector, organizations from the non-governmental sector, state and regional authorities.

I believe that the results of the dissertation research have a high degree of practical applicability, therefore I recommend the project-oriented approach for continued development of the topic.

4. Evaluation of scientific and scientific-applied contributions

Contributions can be divided into scientific and scientific-applied.

➤ Scientific **contributions** can include:

- proposed conceptual model for the study of changes in quality and economic indicators in winemaking when using enzyme preparations.
- the identified main indicators determining the quality of red wines and the proposed system for a unified quantitative assessment of quality in winemaking.
- the proposed system for evaluating the price of red wines according to their quality.

➤ **Scientific- applied** can include:

- the conducted experiment with consideration of the changes over time of the main quality parameters of the produced red wines with different vinification methods .
- testing of the conceptual model in two different types of enterprises from the wine industry.
- the formulated specific recommendations to the enterprises from the wine industry, regarding the use of enzyme preparations, based on our own research.

I accept the contributions as real, credible and proven in the course of the dissertation research.

I consider significant achievements to be the personal work of the doctoral student. *The conclusions and proposals in the dissertation present Stefan Georgiev as an erudite researcher with good theoretical training, with opportunities for creative generalizations and formulating solutions for practice.*

5. Evaluation of dissertation publications

A total of **3 publications** dedicated to the dissertation work for the period 2020-2022 are presented, **one** of them being published in the global Web of Science database. **Two** of the publications are independent and **one** is co-authored. One of the articles is in Bulgarian, and the other two are in English. In terms of volume and quality, they correspond to the requirements for receiving the ONS "doctor".

I accept all publications like direct relatable to dissertation labor. In them are summarized and published essential problems and results from research in the dissertation labor.

6. Assessment of the auto-refereal

The presented abstract of the dissertation is in a volume of **32 pages**. It reflects the goals and objectives of the research, the emphasis of the individual chapters of the dissertation, as well as the contributions of the author. *The abstract was developed in accordance with the requirements for its preparation and reflects the main results and contributions of the dissertation work.*

7. Critical notes, recommendations and questions

- *Main opinion:* quality thesis, excellently illustrated, clearly outlined contributions with potential for development.
- *Critical notes:* I have no significant critical notes on the dissertation research.
- *Recommendations:* I recommend the dissertation labor Yes be issued, considered in-depth analysis , expressions attached character and the made conclusions .
- *Question:* *What are the main reasons why the current wine market is dynamic in different price segments? What is the main reason that in recent years there has been a shift in the market shares of red and white wines in the direction of diversification of branded wines and a movement towards a higher price category?*

8. Conclusion

Given the merits of the dissertation work, the topicality and complexity of the researched problems, the need to search for effective solutions for them in practice, the good theoretical level of the researched and analyzed problems, it can be summarized that the presented dissertation work meets the normative criteria for **awarding the educational and scientific degree "doctor" /ZRAS, art. 6, paragraph 2 and paragraph 3/.**

The stated results of the study, dedicated to "**Changes in the qualitative and economic indicators in winemaking when using enzyme preparations**" provide sufficient grounds for a **HIGH ASSESSMENT** of the scientific potential and opportunities for research activity of the doctoral student.

All this allows me to vote **POSITIVE with conviction** for awarding **Stefan Deyanov Georgiev the scientific and educational degree "doctor" in professional direction 3.8. "Economics", scientific specialty "Economics and Management (Industry)".**

15.06.2023
Plovdiv city

Prepared the review:
/ Prof. Dr. V. Nikolova-Alexieva /