

OPINION

regarding a dissertation work for the award of an educational and scientific degree "doctor" in the scientific specialty "Statistics and demography" in the SA "D. A. Tsenov", Svishtov

Prepared the opinion: assoc. prof. Alexander Tsvetanov Naydenov, PhD, lecturer from the Department of "Statistics and Econometrics", Faculty of "Applied Informatics and Statistics", UNWE-Sofia, doctor of 05.02.06 "Statistics and Demography" (Diploma No: 34089/17.05.2010, confirmed by Protocol 4/16.03. 2010), associate professor in the scientific specialty "Statistics and Demography" (Certificate No.: 70/2017, Order CR-800/01.03.2017, registered in the NACID).

Author of the dissertation: Tsvetozaria Dimitrova Gateva

Topic of the dissertation: "Improving the organizational structure of the NSI – problems and prospects"

I. General presentation of the dissertation:

1. *The subject* of the scientific research is the in-depth examination of the changes in the organizational structure of the National Statistical Institute (NSI) and an assessment of the resource provision of the institution's activities with human resources.

2. *Volume* - the dissertation work for the acquisition of the educational and scientific degree "doctor" has a total volume of 233 pages, of which 195 pages are the main presentation, 1 page is a declaration of originality, 7 pages are used literature (135 sources in total) and 24 pages are appendices (20 in total). The work contains 26 figures and 42 tables, and is structured in: introduction, three chapters, conclusion, bibliography and appendices.

3. *Structure* – the scientific paper has a clear structure and fully follows the logic of the researched issue.

The introduction justifies the need to conduct an in-depth analysis and assessment of the changes in the organizational structure of the main "producer" of official statistical information in the Republic of Bulgaria - the National Statistical Institute. The object, subject, goal and objectives of the study are correctly defined. The author's research thesis is that: "...for the production of high-quality, reliable and authentic statistical information, the NSI must maintain an organizational structure that is adequate to the times and adapted to the changes caused by the rapid development of information and communication technologies...". In this part of the scientific work, the dissertation author also made a brief description of the methodology of the study, the information support used, as well as the restrictive conditions of the study.

Chapter One examines the conceptual foundations, elements and principles of different types of organizational management structures. A special place is also devoted to a review of the literature concerning the subject of the study. This chapter also examines the stages of establishment and functioning of the statistical authority of Bulgaria, as well as the place and role of the NSI in the national and European statistical systems.

Chapter Two is entirely intended to reveal in depth the strategic goals concerning the changes in the organizational structure of the NSI, and the results achieved from the structural changes made. A special place is devoted to the characteristic features of the changes in the organizational structure of the NSI for the period 2004-2023. Also, Chapter Two discusses the creation, development and modern organization of the territorial structures of the Institute. The chapter ends with a focus on administrative capacity as a condition for the implementation of policies in the field of statistics.

The third chapter has a combined content – methodological and practical-applied. In point 3.1, some basic statistical methods for time series analysis are briefly discussed, as well as approaches for studying structural changes. The remaining part (3.2) of Chapter Three is

devoted entirely to the analysis of time series concerning the number and structure of NSI employees, viewed from different “angles” – in total, by education levels and by age groups.

The dissertation ends with a conclusion, which briefly summarizes the main conclusions from the research conducted by the dissertation candidate.

4. *Literature (bibliography)* - the sources of information used by the dissertation candidate, related to the topic under consideration, show diligence and thoroughness, as well as excellent awareness.

5. *Appendices* - in order to ensure the conciseness of the presentation and completeness of the content of the dissertation, the "Appendices" section contains separate "excerpts" from historical documents concerning the NSI, various snapshots of the Institute's organizational structure for the period 2010-2023, and detailed data on the number of its staff.

II. Assessment of the form and content of the dissertation.

1. Assessment of the relevance and development of research in the dissertation scientific problem;

The dissertation examines in depth important issues related to the status and changes in the organizational structure of the main "producer" of official statistical data in the Republic of Bulgaria - the National Statistical Institute.

2. Opinion on the language, volume and tools of the dissertation;

The dissertation candidate demonstrates in-depth knowledge of the literature on the issue under consideration, good skills for the statistical tools usage in order to study the dynamics in the number and structure of NSI staff, as well as the ability to apply general-purpose software for the statistical analysis.

The scientific paper is clearly structured, combining an optimal volume of exposition and a balanced distribution of information in the individual chapters, a clear and logically consistent presentation, as well as good argumentation of the scientific conclusions drawn.

3. An opinion on how accurately and completely the abstract reflects the work.

The abstract for the dissertation is 44 pages long and includes: a general description of the dissertation, structure and content of the dissertation, a brief but meaningful presentation of the work, a reference to the main scientific and applied scientific contributions, a list of publications on the topic of the dissertation, a reference to compliance with national requirements according to the Regulations for the Application of the ZRASRB, as well as a declaration of originality of the dissertation.

The abstract is excellently prepared and correctly summarizes the content of the dissertation work, as well as the scientific and applied scientific results achieved by the dissertation candidate.

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

The contributions to the dissertation are correctly presented in a list attached by the dissertation candidate and reflect the actual scientific and applied work carried out by him/her.

The following can be highlighted as the main scientific and applied scientific contributions to the development:

- The systematization of basic facts concerning the establishment and functioning of the Bulgarian statistical institution, while defining 4 specific stages in its development.
- The in-depth analysis of the changes in the organizational structure of the NSI for the period 2003-2023, as well as the related changes in the administrative capacity and the regulatory acts adopted during this period.
- The established patterns in the number and structure of staffing for the Institute's activities, both in general and in individual strata.

- The formulated clear recommendations for the future improvement of the organizational structure of the NSI, taking into account the specific features of modern times.

In addition to his dissertation, the author has presented his research results in 2 articles and 3 conference reports in Bulgarian language.

IV. Dissertation questions.

Based on the dissertation work reviewed, I would like to make the following remarks to the author, which are in no way intended to belittle the work done:

- In point 1.1, for a better understanding of the specific features of different types of organizational structures, it would be useful to use diagrams to visualize the relationships between the individual components in these structures.
- In order to facilitate the computational procedures in the time series modeling process, specialized statistical software (e.g. IBM SPSS, R, etc.) can be used instead of Microsoft Excel.

Also, I would like to ask the following questions to the author of the dissertation:

- Does the dissertation candidate believe that the lack of a "real" methodological department in the current organizational structure of the NSI brings any negatives to the institute? If so, what are they?
- Based on the estimated trend models regarding the dynamics of the number of employees in the NSI - in total, in the central office and in the regional offices, what predictions can be made for these indicators for the period 2024-2025?

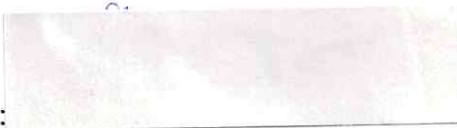
V. Summary evaluation of the dissertation work and conclusion.

The dissertation work on the topic: "Improving the organizational structure of the NSI – problems and prospect" represents a thorough scientific and scientific-applied study that presents the doctoral student as an accomplished researcher. The work was developed in accordance with the normative requirements for awarding the educational and scientific degree "doctor", reflected in the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB) and the Regulations for its application.

In conclusion and in view of the quality of the proposed dissertation work, I confidently express my opinion "**in favor of**" awarding the educational and scientific degree "doctor" in the scientific specialty "Statistics and Demography" to Tsvetozaria Dimitrova Gateva.

Date: 29/01/2025

Prepared by:



(assoc. prof. Al. Naydenov, PhD)