

REVIEW

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

Reviewer: 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: Plamena Yordanova Koleva

Topic of the dissertation: "Statistical study of tourism in Bulgaria"

I. General presentation of the dissertation work

1. **The subject** of the scientific research is a statistical and econometric analysis of inbound tourism and, more specifically, the visits by foreign tourists to Bulgaria.
2. **Volume** - the dissertation work for the acquisition of the educational and scientific degree "doctor" has a total volume of 204 pages, of which: 162 pages of main text body, 1 page of declaration of originality, 16 pages of used literature (90 sources in Cyrillic and 64 in Latin) and 24 pages of appendices (22 in total). The work contains 32 figures and 13 tables, and is structured in: introduction, three chapters and conclusion.
3. **Structure** – the scientific work has a clear structure and follows the logic of the researched issue. In short, the content of the dissertation is as follows:
 - The introduction justifies the need for statistical research on the tourism, which is: "...a sector of great importance for the development of any national or world economy". The object, subject, goal and objectives of the study (5 in number) are correctly defined. The author's research thesis is that: "...through the application of appropriate statistical and econometric methods for studying the dynamics, seasonality and structural changes in terms of inbound tourism indicators, objectively formed regularities can be established, which allow the development trend to be correctly modeled and short-term forecasts to be developed for assessing the future development of key inbound tourism indicators." The dissertation has also made a brief description of the information base used, the research methodology and the limiting conditions of the statistical and econometric analysis conducted.
 - Chapter One examines tourism as an object of statistical research. Here, the following are discussed in detail: the European and global experience in organizing statistical research on tourism, the methodological guidelines in the field of tourism statistics developed by the UN World Tourism Organization and by the countries of the European Union, the conceptual foundations of statistical research on tourism, as well as a brief overview of contemporary empirical research in this field in Bulgaria.

- The Second chapter is devoted to the information and methodological aspects of tourism research. Here, space is allocated for an extensive consideration of: the information provision of the statistical survey of tourism in Bulgaria, the methods and models for studying the dynamics of tourism processes, as well as the statistical methods for characterizing seasonality in tourism processes and the statistical methods for measuring and assessing the intensity of structural changes in this "industry".
 - Chapter Three is aimed at analyzing and practically testing the theoretical and methodological constructs presented in the previous chapters on the available data on visits by foreign citizens to Bulgaria. Consecutively, a statistical analysis has been carried out here regarding: the comparison between Bulgaria and a group of European countries in terms of international tourism, the dynamics of inbound tourist visits, seasonal fluctuations in inbound tourist visits and structural changes in inbound tourist visits. The dissertation ends with a conclusion that synthesizes the key results of the research conducted.
4. **Literature used** - the sources of information used by the PhD student related to the topic under consideration show that he is a thorough researcher who has made significant efforts to study and synthesize the huge volume of information concerning tourism problems.
 5. **Appendices** – in order to keep the presentation concise and the content complete, the dissertation author has placed the input data and part of the results of the analysis in tabular format in the "Appendices" section.

II. Assessment of the form and content of the dissertation

1. **Assessment of the relevance and development of research in the dissertation, scientific problem and the formulated subject, object, thesis, goals, objectives and research methods, as well as the clarity and argumentation of the ideas, the prominence of the novelties;**
 The dissertation focuses on the statistical study of the dynamics and structure of an important phenomenon for the economy of Bulgaria - inbound tourism. The interest in this key "industry" in business circles and the scientific community has been growing more and more in recent years. The subject, object, goals and objectives of the study are defined adequately to the issue under consideration. The PhS thesis clearly, accurately and in sufficient depth develops his ideas and argues them in an indisputable way for the reader.
2. **Analysis of the degree of development of the researched issues by other scientists and the author's own reflected attitude on the issues under consideration**
 The paper provides a sufficiently in-depth review of the existing literature and the perspectives presented therein of other scholars and researchers focused on tourism issues, accompanied by a moderate "dose" of criticism.
3. **Opinion on the volume of the dissertation work**
 The dissertation is of a volume that adequately corresponds to the level of depth that a dissertation research implies. The content of the dissertation is balanced, with the individual chapters being of sufficient volume, which allows the author's ideas to be revealed in sufficient depth.

4. Opinion on the quality and quantity of the proposed illustrative material

The practical and applied parts of the dissertation are supplemented with a sufficient number of graphs and tables that appropriately visualize the author's ideas.

5. Assessment of scientific, linguistic and stylistic editing

The presentation in the dissertation undoubtedly has a scientific style, which presents its author as an accomplished scientist-researcher with excellent linguistic culture and in-depth knowledge in the scientific field in which it is realized.

6. Assessment of the correctness and necessity of statistical processing of empirical data

The results of the analysis presented by the author show that he is able to use the statistical formula apparatus and skillfully handles specialized software in a way that provides him with the opportunity to reach the correct results and prove his research thesis in an indisputable manner.

7. Opinion on compliance with the rules of scientific ethics

The dissertation candidate correctly cites the literary sources he or she has used, while at the same time "weaving" his or her creative thought, so that the resulting result convincingly presents the author's ideas.

The declaration of originality signed by the author guarantees that the submitted dissertation is of original origin and has not been used to obtain a scientific degree at another higher education institution or scientific institute.

8. Opinion on the accurate and complete coverage of the dissertation work in the abstract

The abstract concerning the dissertation work is 34 pages long and includes: a general description of the dissertation work, structure and content of the dissertation, a brief but meaningful presentation of the work, a reference to the more significant scientific contributions developed in the dissertation, a declaration of originality and a list of publications on the topic of the work.

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 applied scientific 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 most significant scientific and applied scientific contributions in the development can be listed as:

- The lack of a thorough statistical and econometric analysis of inbound tourism in Bulgaria has been proven and the need to apply this type of analysis to overcome the emerging "deficit" has been justified, with a view to studying the real-existing patterns in the field of tourism, thereby assisting in making important strategic decisions for the development of this industry.
- A thorough critical analysis of the existing statistical information base has been carried out to carry out complex and effective comparative research on tourism in Bulgaria.

- A rich "pleiad" of statistical and econometric methods has been applied, with the help of which clear patterns in the trend (including seasonality) of visits by foreign tourists to Bulgaria have been established and the specific features in the structural dynamics of visits by these tourists by main groups of countries and by motives of visits have been identified.
- Using the established objectively existing patterns in the main indicators, the subject of the study, an extrapolation was carried out in a short-term perspective, which further contributes to making adequate management decisions.

In addition to his dissertation, the author has presented his research ideas and results on the topic in 2 scientific articles and 2 reports at scientific forums.

IV. Critical notes, questions and recommendations on the dissertation

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 he has done:

- The title of the dissertation could be defined a little more specifically to reflect the factual content of the study, such as: "Statistical study of *inbound* tourism in Bulgaria".
- On page 30, the term "design" (Stages 4 and 5) would be more correct to translate into Bulgarian as "proektirane" (...of a sample, ...of a questionnaire).

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

- What is the source from which the definition of tourism in a "broad" sense, stated at the beginning of page 15 of the dissertation, was derived?
- When counting overnight stays in accommodation in Bulgaria, are those made through online platforms such as AirBnB and Booking included?

V. Summary of conclusion and opinion

The dissertation on the topic: "Statistical study of tourism in Bulgaria" is an in-depth scientific and applied research that presents the doctoral student as a complete researcher. The work has been developed in accordance with the regulatory requirements for awarding the educational and scientific degree "doctor", reflected in the Act on the Development of Academic Staff in the Republic of Bulgaria and the Regulations for its implementation.

In conclusion, and in view of the quality of the proposed dissertation, I firmly express my opinion "**in favor**" of awarding the educational and scientific degree "doctor" in the scientific specialty "Statistics and Demography" to Plamena Yordanova Koleva.

Date: 21/02/2025

Prepared by:

(assoc. prof. Alexander Naydenov, PhD)