

Review

of professor Tsvetan Iliev, PhD, in the procedure for the acquisition of the educational and scientific degree “PhD” in the of higher education 3. “Social, Economic and Legal Sciences”, professional direction 3.8 “Economics”, scientific specialty (PhD program) “Finance and Banking”.

The review was prepared in my capacity as a member of the scientific jury, appointed by Order № 115/04.04.2023 of the Rector of UARD – Plovdiv, and meets the requirements of Art. 10 para 1 of LDASRB and Art. 32 para 1 of the Regulations for its implementation.

Candidate for the procedure: Vladimir Dragi Arsovski № 2134402002

Dissertation topic: “FINANCIAL APSECTS OF GREEN ECANOMY AND ITS ROLE FOR SUSTAINABLE DEVELOPMENT: TRENDS, DYNAMICS, INTERATCTIONS”

SCIENTIFIC SUPERVISIOR: Prof. Ogniyana Stoichkova, PhD

I. Short curriculum vitae of the PhD student

Vladimir Arsovski is a citizen of the Republic of North Macedonia (RNM). He completed his secondary education at the “Gotse Delchev” High School in the town of Kumanovo. In 2010 he graduated in Financial Management from the university “St Cyril and St Methodius” in Skopje, and in 2014 he obtained a Master’s Degree in Marketing and Management from the International Slavic University “G. R. Derzhavin” in RNM. On this basis, I find that the requirements of Art. 6 (1) of the LDASRB and Art. 4 (1) of the Regulations for its implementation when enrolling the PhD student in an independent form of doctoral studies at UARD – Plovdiv, PhD program “Finance and Banking”.

II. Evaluation of the dissertation structure

According to the requirements of Art. 6(3) of the LDASRB and Art. 27(2) of the Regulations for its implementation Vladimir Arsovski has developed a dissertation of 246 standard pages, including 215 pp. main text, 16 pp. bibliography and 10 pp. applications. Structurally, it is relatively balanced, with the content divided as follows: introduction, exposition in four chapters, conclusion., bibliography and two appendices. An illustrative

toolkit including 12 tables and 19 figures is used to illustrate the processes, phenomena and trends presented by the dissertation. The bibliographic reference covers 287 titles, of which 65 are by Bulgarian authors and documents and 222 by foreign authors. This gives me reason to note that in developing his dissertation, the PhD student has built on a broad base, taking into account the achievements of a wide range of researchers on the issue.

Regarding the structure, I can say that the dissertation has a complete form, which corresponds to the requirements for such a work.

III. Evaluation of the dissertation content

The main motive in the choice and development of the topic, according to the PhD student, are the challenges faced by both developed and developing countries in achieving sustainable environmental development. Environmentally friendly economic development is a prerequisite for the emergence of a new scientific field called green economy. In this regard, I believe that the PhD student has correctly positioned his work in the field of attempts to define the relationship between the economy and the environment, to define the problems in this area and to formulate the nature of the ecological economy and its relationship with sustainable development in the context of economic growth. In practice, not all aspects of the relationship between green development and sustainable economic development have yet been fully explored in scientific circles. Very often, contradictions occur in the work of different authors.

Thus, the relevance of the dissertation research can also be attributed to the need for further development of the theoretical foundations of green economy in the context of sustainable development that is creating a new science called green economics. Rather, the emergence of environmental problems in the process of the world's economic development brings to the fore the need for a new scientific reading of the prospects, opportunities and constraints to development in the future.

The PhD student has defined the object of his research as the "green" economy and its opportunities for ensuring sustainable economic development, and its subject – the financial aspects characterizing the opportunities of the green economy for achieving environmentally sustainable development.

On the basis of the object and subject thus outlined, the aim of the dissertation is to **identify opportunities for enhancing sustainable development and for optimizing economic growth rates with the help of financial instruments stimulating the "greening" of the economy.** The working hypothesis, which PhD student Arsovski explores, is that the instability of the current system of market economy does not allow effective implementation of the main advantages of the "green" economy, and the alternative can only be a system built

on the basis of a balance between market and regulated economy. In order to achieve the outlined goal and to test the hypothesis, PhD student Arsovski envisages the following **tasks**:

1. Review and evaluate the definitions presented by different authors, international forums and institutions of the green economy model.

2. Analysis and evaluation of the concepts of sustainable development with a view to its positioning in the perspectives of environmentally friendly economic relations. Identify the problems posed by sustainable development related to environmental protection, achieving greater resource efficiency, reducing poverty and social inequality.

3. Highlighting the financial aspects of the manifestation of the characteristics of the green economy, the role of financial instruments for the transition from a traditional to a green economy.

4. The problems of establishing the green economy in the Republic of North Macedonia and conducting an empirical study on the attitudes of the population regarding the importance of moving towards a green economy and the financial capacity of local authorities.

In view of the object, subject, thesis, aim and objectives thus defined, the limitations of the study are outlined. The thesis analyses three groups of financial aspects of the green economy – financial instruments to stimulate investment in the green economy, the problem of green jobs and the role of the green economy for economic growth in terms of maintaining sustainable economic development. Issues related to the risks to financial stability resulting from climate change are left out of the scope of the study.

For the formation of his point of view on the above mentioned issues, the PhD student has taken into account the works of numerous Bulgarian and foreign authors, as well as a number of documents of international organizations such as the Club of Rome, UNCTAD, World Bank, etc.

The **research methodology** used by the PhD student includes: literature review and critical analysis of the available secondary information on the topic, induction and deduction; comparative analysis and synthesis; a survey to determine attitudes at the level of selected municipalities in the RNM. This gives me reason to point out that PhD student Arsovski knows and can use a wide range of research methods and approaches on the basis of which he tests the above hypothesis to confirm his position.

CHAPTER ONE

PROBLEMS OF THE GREEN ECONOMY IN THE CONTEX OF GLOBAL ECONOMIC DEVELOPMENT

Chapter One of the dissertation sets the theoretical foundations of the study. Paragraph 1.1 is entitled “The green economy debate – theoretical concepts and influencing factors”. It

traces the origins of the concept of green economy. A critical review is made of the more important definitions given by various authors and international institutions such as UNEP, UNSTAD, the International Chamber of Commerce, the UN Commission on Sustainable Development, the European Bank for Development and Reconstruction, etc. On this basis an author's definition of the nature and scope of the concept of "green" economy is proposed. According to PhD student Arsovski, it encompasses such economic processes that affect the production, distribution, exchange and consumption of goods and services so that the overall well-being of people grows in the long term without exposing future generations to serious significant environmental risks. This position demonstrates Arsovski's understanding of the green economy as an extension of the concept of sustainable development.

In the second paragraph of this chapter, the PhD sets out to identify the advantages of green economics as a paradigm compared to sustainable development. The proposed "developed – developing country" relationship in terms of responsibility for climate change and biodiversity loss as a practical consequence is very impressive. On the basis, the need to build a public consensus at global level to shape and apply green principles to current and future economic and social development is highlighted.

The third paragraph of Chapter One highlights different aspects of the relationship between human economic activity and environmental components. In its essence and practical dimensions, it also looks at possible ways to overcome the problems of climate change and its effects on current and future development.

At the end of the chapter, some more important conclusions are drawn, grouped in three directions in view of what has been presented in terms of content. In my opinion, this testifies to the PhD student's ability to collect and process information, on the basis of which to draw reasonable conclusions.

CHAPTER TWO

THE GREEN ECONOMY AND SUSTAINABLE DEVELOPMENT – TRENDS AND DYNAMICS

In the second chapter of the dissertation, the PhD student makes a comparative analysis between the concepts of sustainable development and green economy in search of commonalities and differences. Paragraph 2.1 focuses the PhD student's attention on the concept of sustainable – economic, social, environmental and institutional. As a result of presenting the essence of the components, PhD student Arsovski concludes that the green economy and sustainable development are interrelated. Moreover, the green economy is seen as a tool for achieving sustainable development. Sharing UNCSD's thesis, the author argues that the concept of green economy should be the basis for sustainable development.

In the second paragraph, “Green economy and sustainable development: interaction or opposition”, two perspectives on the origins of sustainable development economics are analyzed. The first, called Research for Sustainable Development, takes as its basis the programme “Economics of Sustainable Development” developed by the German Federal Ministry of Education and Research. It is part of the German National Strategy for Sustainable development and the federal government’s high-tech strategy. The second perspective on the origins of sustainability economics draws on the theses presented in two studies concluded in the twentieth century: the “spaceship economics” of Boulding and the “sustainable state economics” of Daly.

Presenting these two perspectives, the PhD concludes that the green economy has always been inextricably linked to sustainable development. Thus, he joins the group of researchers who define the two concepts as analogous. Moreover, Arsovski supports the view that the green economy is a process and sustainable development is challenge. In this respect, it defines sustainable development as a broader concept, and the green economy as its constituent element.

By analogy with the understandings of growth as a tool for solving the problems of poverty and social inequality, which are inherent in the majority of economic ideas, in the third paragraph of the second chapter PhD student Arsovski analyses one of the most important components of the concept of sustainable development – the social one. On the basis of the review of the different understandings of the ways and means to achieve sustainable development, the following conclusion is reached: sustainable development is a way of managing natural resources in such way that the well-being of people today does not lead to a limitation of the degree of satisfaction of the needs of future generations. A tool for this are the principles of the green economy.

CHAPTER THREE

ECONOMIC AND FINANCIAL ASPECTS OF THE GREEN ECONOMY IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Chapter Three of the dissertation begins with an attempt to identify and analyze some basic financial instruments through which the principles of the green economy could be successfully implemented. Paragraph 3.1 argues that the transition to a climate-neutral, climate-resilient green EU economy requires significant investment across all sectors to address biodiversity loss, protect natural capital and support the circular economy. As an example in support of his understanding, PhD student Arsovski discusses the EU0’s InvestEU programme, the Just Transition Mechanism (JTM) and others. At EU level, he said, a review of the EU emissions trading system and effective carbon pricing is needed, removing sectoral regulatory barriers to investment in energy efficiency and renewable energy.

Another important point that deserves attention in this paragraph is the opportunities for achieving growth in a green economy. This author's understanding is a counterpoint to the famous report "Limits to Growth" from the 1970s. The PhD student identifies the EU's Green Deal as the way forward for the 2021-2027 period. It defines the target financial parameters of the required public and private funds, the investment of which creates the preconditions for achieving green growth.

According to Arsovski, another important guideline for financially securing investment needs is the approach of the so-called "green budgeting". A key point in it is the introduction of mechanism for receiving state aid for the transition to a "green" economy.

A third direction of development for the PhD student can be seen in the so-called Taxonomic regulation, whose main provision is the creation of a "green list", i.e. a system for classifying sustainable economic activities. The regulation provides for the development of technical standards by which it will be possible to determine whether an economic activity is sustainable in terms of environmental impact.

The second sub-paragraph of the first paragraph "Green jobs" explores the role of emerging occupations and new jobs replacing old traditional industries as a result of the shift to a green economy. In defining the term "green workplace", the International Labor Organization (ILO) understanding is used. On the basis, groups of professions are identified, which PhD student Arsovski considers as key in the conditions of "green" economy. They are related to renewable energy and low-carbon industries.

The third sub-paragraph provides an overview of the financial instrument used to achieve the transition from a traditional to a green economy. Among them, the PhD student pays attention to the sources of public financing at national and supranational level and to the banking sector as a distributor of private capital. In addition, the PhD student has reviewed the possibilities of central banks to stimulate green processes in economies through monetary policy instruments and government action through fiscal measures.

In line with the discussion in scientific circles about the benefits and negatives of "greening" economic development, in the second paragraph of Chapter Three Arsovski presents the arguments FOR and AGAINST the green economy. On the basis of the review, it is reasonably concluded that, in view of the future, the benefits outweigh the negatives.

CHAPTER FOUR

THE GREEN ECONOMY AND THE CHALLENGES FOR THE REPUBLIC OF NORTH MACEDONIA

The Chapter Four of the dissertation examines the conditions created in the RNM for the development of green entrepreneurship and the challenges the country faces in the transition to a green economy.

The first paragraph, "Green Entrepreneurship", describes green entrepreneurship and the need to support it. PhD student Arsovski defines it as a possible way to overcome the crises, as well as a mechanism to achieve development in rural, isolated and underdeveloped areas. The guidelines for its practical implementation in the RNM are outlined: through ecological agriculture and production, cultivation of local varieties and breeds, rural tourism, fishing tourism, adventure and educational tourism, ecological fish and shellfish farming and other innovative business activities inspired by nature, tradition, local resources and their sustainable use.

The second paragraph of Chapter Four, "The Tasks for the RNM", describes the problems that the country has to solve in order to successfully embark on the green economy path.

In the third paragraph of Chapter Four, "Comparative Characterization between the Capacities of SMEs in the RNM and in the EU for the Implementation of the Green Economy", a comparative analysis is attempted between the capacities of SMEs in the RNM and in the EU for integration into the green economy. For this purpose, data from EU-27 survey were used, for which the source, period and coverage of the data is unknown. For the RNM the PhD student has implemented a survey in the border municipalities of the RNM (Delcevo, Kochani, Stip and Strumica). A total of 456 people were interviewed, including 67 business representatives, 188 citizens, 87 administrative officials, 90 NGO representatives and 24 others.

From the empirical study, it is evident that 90% of the respondents are familiar with the concept and have a positive attitude towards the green economy. Respondents' assessment is that the way of raising awareness about the transition to a green economy are not effective enough. According to respondents, municipal authorities mainly focus on waste management in the context of the green economy, but find this insufficient. Respondents noted the importance of the task of improving their own businesses, while at the same time making sparing use of natural resources.

The conclusion of the dissertation presents the summary results and conclusions that PhD student Arsovski reached in the presentation of the four chapters.

During the review of the dissertation I have not found the presence of plagiarism, thus I accept for fulfilled the requirements of Art 10 (2) of the LDASRB. This opinion is supported by the declaration of the supervisor for plagiarism check of the text of the dissertation using the software under Art9, para 1 of the Procedural Methods and Means for Verifying the Originality and Authenticity of Theses and Dissertations, Preventing and Sanctioning Examination Fraud and Plagiarism at UARD.

IV. Evaluation of the contributions of dissertation work

On the basis of what is presented in the dissertation, I accept the scientific contributions defined in the reference as the author's achievement. In my opinion, they are mostly theoretical. In this sense, I consider that the requirement of Act 6 (3) of the LDASRB and Art. 27 (1) of the Regulations for its implementation.

V. Evaluation of the abstract

The abstract presented by PhD student Arsovski is of 38 standard pages. It fully reflects what is presented in the thesis and contains all the requisites necessary for such a work.

VI. Evaluation of the PhD student's publication activity

In the list of publications for participation in the procedure for obtaining the PhD VI. Arsovski has listed a total of six developments. Two studies, one article and three scientific reports have been published. All publications are related to the topic of the thesis and reflect different aspects of it.

This scientific creativity, in my opinion, corresponds to the quantitative and qualitative scientific metrics for the award of the PhD.

VII. Critical comments and recommendations

Vladimir Arsovski's dissertation is complete and demonstrates the typical features of a research work. Without belittling its merits, I can acknowledge one major weakness. It has to do with the imbalance between theoretical representation and empirical investigation of the problem. I have no other substantive criticism.

In conclusion, I believe that **PhD student Vladimitir Arsovski meets the requirements for the award of the degree of PhD of Education and Science in the scientific specialty (PhD program) "Finance and Banking" and possesses the necessary qualities. In view of this, I propose to the Honorable Members of the Scientific Jury to support the award of the PhD degree to Vladimir Arsovski on the basis of Chapter Two of the Law on the Development of Academic Staff in the Republic of Bulgaria.**

Data: 02.05.2023
Plovdiv

Prepared the expert opinion:


/prof. Ts. Iliev, PhD/