



## REVIEW

on dissertation for obtaining the **DOCTORATE DEGREE** in Higher Education 3. Social, business and legal sciences, Professional Field 3.8 Economics, Scientific Specialty: Organization and management (agriculture and sub-sectors)

**Author of the dissertation:** IZET HAMEZ HOTI

Part time PhD student at the Department of Management and Marketing at the Agricultural University, Plovdiv

**Thesis topic:**

STRATEGIC MANAGEMENT OF THE ENERGY PRODUCTION OF AGRICULTURAL PRODUCTS IN KOSOVO

**Reviewer:** Prof. Dr. Nelly Andreeva Bencheva,

Agricultural University, Plovdiv; 3. Social, Business and Legal sciences, Professional field 3.7 Administration and management, Scientific specialty: Organization and management appointed as a member of the scientific jury by order No. РД - 16-15 / 14. 01.2020 from the Rector of the AU.

1. Brief introduction of the applicant.

Izet Hamez Hoti was born on 14.11.1960 in the Republic of Kosovo. He has completed his higher education at the Higher Pedagogical School with the Polytechnic Department at the University of Pristina and the Higher Technical School, Faculty of Electrical Engineering and Computer Engineering, at the Mitrovica University of Pristina. He received his Master's Degree in Information Management from the University of Illyria-Pristina. He has been working in Kosovo's energy sector for over 34 years. He has held various positions as an electrical engineer, civil engineer, operational planning technologist. In recent years he has been involved in training. She is currently part of the staff of teachers at the Center for Vocational Education and Training in Pristina. His teaching activity is related to the professional training of staff for the needs of the Kosovo B power plant. He is the head of the professional practice in the training department of the Department of Engineering. He is responsible for the professional practice of students in various technical fields at the University of Pristina.

## **2. The relevance of the topic under the consideration**

Increasing the share of energy from agricultural products is a strategic goal globally. The rational use and production of this type of energy contributes to tackling negative climate change and promoting economic growth and employment, and to safe and affordable energy for consumers. Promoting the production and use of energy from agricultural products sets the overall framework for long-term, strategic goals for the

development of this energy sector.

In this context, I believe that the topic chosen addresses important and relevant research questions to clarify the overall economic role of biomass used for energy production. Particularly important in this regard is conducting an in-depth theoretical study to build a model for overall economic assessment that takes into account both strategic and long-term energy supply requirements. At the same time, there is a need for a more detailed analysis of the least discussed aspects - such as the social and regional division of income and jobs. In the dissertation, several topical questions are raised as the main focus of the strategic framework for energy production management:

- What is the economic importance of using biomass energy;
- To what extent is it appropriate to use state funds for biomass processing;
- What are the economic effects of biomass processing in relation to different energy prices;
- What is the value of biomass profits on the public heating market (kindergartens, schools, hospitals) and what are the economic conditions and difficulties for Kosovo's conditions.

Although many articles and research have been published in the Republic of Kosovo in recent years that affect a number of parameters of energy production from agricultural products, there is a lack of comprehensive study on the strategic management of this production, which is the subject of this thesis for production of biomass energy.

I believe that the doctoral student, with solid objective arguments, different approaches to the problems, methods and data sources for energy production from agricultural products in Kosovo has justified the relevance of the chosen topic.

### **3. Purpose, tasks, hypotheses and methods of research.**

The dissertation consists of 149 pages, of which 145 pages are a summary. In terms of the structure and content of the dissertation, it should be noted that a good and logical presentation of the material has been achieved.

The goals, objectives and methods of the study are set out logically and consistently. Seven research objectives have been solved to achieve the objectives, which include mainly:

- Conceptual clarification of the essence of strategic management of energy production;
- Literature review of existing methodologies for analyzing and evaluating the effects of applying the strategic management approach;
- Adaptation of methodology for research, analysis and evaluation of the Kosovo energy sector;
- Diagnosis of agriculture as a raw material base for electricity production in Kosovo;
- Collecting, structuring and synthesizing empirical information about the goals of the research
- Analysis of existing strategies for managing electricity production from agricultural products;
- Formulation of policies and strategies to increase the effects of the strategies implemented in the sector.

The realization of the goals and objectives of the research is achieved through the analysis and synthesis of our own empirical studies and official statistics.

The methods of analysis used are: systematic approach, retrospective analysis, situational analysis, comparative analysis, statistical methods, diagnostic analysis, prognostic analysis, etc.

The proposed toolbox allows making a complete and accurate description of the results obtained. They form the basis for defending the thesis and theses in the dissertation that the implementation of the strategic approach in the management of energy production from agricultural products is a prerequisite for improving the quality of the environment. Biomass has the potential as an energy resource to meet

environmental challenges and improve economic activity in rural areas. The use of agricultural products from the energy sector of the Republic of Kosovo improves the sustainability of the sector through diversification of energy sources. The development of management strategies leads to an improvement in the prospects for the development of the agricultural sector as a source of energy production products.

The protection of the thesis and the thesis is achieved by carrying out an analysis of the energy potential of the agricultural sector and designing a strategy for the processing of waste from the agricultural sector.

#### **4. Visualization and presentation of the results obtained**

The work is structured as follows: introduction, three sections, conclusion and recommendations, list of used literature. 85 literature sources were used. The results of the empirical studies are illustrated in 42 tables and 11 figures.

Important theoretical generalizations, decisions and conclusions for the strategic management of energy production from agricultural products are made in the dissertation presented. The methods and means of expertise used have made it possible to identify and evaluate the characteristics of different agricultural products for energy production and the specific characteristics of the strategic management of that production.

The dissertation contains specific results and empirical evidence that objectively reflects the real achievements of the research. The contributions greatly enrich the scientific knowledge of research and strategic management of biomass energy production, as a promising direction for the development of the Kosovo energy sector.

The results show that the PhD student has in-depth theoretical background, knowledge and ability for independent scientific research.

#### **5. Discussion of the results and the references**

The first section develops a strategic framework for the management of energy production in Kosovo. Basic theoretical issues of using biomass as an energy resource are discussed. Basic concepts and definitions in the study of the energy potential of biomass are also commented. As a result of a critical analysis of the opinions of the leading authors, a successful attempt was made to define their own understanding and opinion on the use of the biomass energy potential, characterizing

the advantages and disadvantages of different products and their role in the energy production process.

In this context, the main problems of using biomass for energy production are raised. An in-depth analysis of the results of the different scenarios was made, as well as an assessment of the different technologies and programs. On this basis, proposals for the research methodology have been formulated. Some systemic constraints were also imposed and the spectrum of the overall study determined.

Emphasis is placed on the benefits of using the heat generated by solid biomass, liquid biomass, mainly sludge and wastewater and gaseous feedstock. In this regard, the need for a variety of forms and methods for analyzing the overall economic role of biomass is revealed, which may include many indicators, acting factors discussed in this section. In addition to seeking the economic effects of biomass processing, the doctoral student also offers environmental impact assessment, job creation and income growth, as well as long-term strategies such as security of supply and prices. Based on the analysis, the doctoral student proposes his own scheme of understanding the economic role and effects of using biomass for energy production.

The second section of the dissertation contains an analytical section devoted to the analysis of data on the total production of biomass from waste from different crops in Kosovo and the specifics and approaches to their management.

The study includes a detailed assessment of the energy potential of biomass from raw materials and products from different agricultural sectors.

The third section outlines strategic guidelines for managing energy production from agricultural products in Kosovo. The cost potential that is crucial for deciding on the development of new energy capacity in Kosovo is identified. The need for a detailed assessment of the economic and technical possibilities for the use of certain types of biomass is justified and the main costs of energy production are revealed.

The dissertation contains specific results and empirical evidence that objectively demonstrates the effectiveness of using different types of biomass for energy production in Kosovo.

## **6. Contributions to the dissertation.**

I accept the scientific contributions presented by the doctoral student, from which the following may be mentioned:

- The basic concepts and definitions of using agricultural products as energy sources have been defined and clarified;
- The main risks in the use of agricultural products for energy production have been identified;
- The benefits and costs of producing energy from agricultural products have been identified.
- Waste energy production project proposed.

## **7. Critical notes and subject matters.**

The selected topic of the dissertation is poorly researched from the point of view of strategic management of energy production from agricultural products. In this sense, one can always find grounds for critical comments on the structure, content, scope of the study. Therefore, I also allow myself to make some notes and suggestions:

- A number of statements, both in the theoretical and the analytical part, need clearer arguments, supported by concrete results from their own research.
- The methodological part of the study is not sufficiently specific and clearly separated as a separate part. In some places, a clearer position and statements on methodological issues are needed.
- There are no conclusions after each section and specific recommendations and strategies for the development of the energy sector by using different products from Kosovo's agricultural sectors.

I hope that these notes, which do not reduce the value of the dissertation, will be taken into account by the doctoral student in his future research work.

## **8. Published articles and citations.**

The abstract presented correctly reflects the content of the dissertation. It summarizes the main points of the dissertation: general characteristics; content and construction of the work; scientific contributions; publications on dissertation issues. Four articles have been published in connection with the dissertation. The total number of points scored is 30, which meets the minimum requirements for obtaining a PhD.

## **CONCLUSION:**

Based on the scientific and applied by the doctoral student, various methods of research, correctly performed experiments, the summaries made and conclusions drawn, I believe that the submitted dissertation work meets the requirements of the Application of the Act for the Development of the Academic Staff in the Republic of Bulgaria, and the Regulations of the Agricultural University for its application, which gives me a reason to evaluate it **POSITIVE**.

I allow myself to propose to the venerable Scientific Jury also vote positively and to award to **IZET HAMMES HOTI** the educational and scientific degree “**DOCTOR**” in Organization and Management (Agriculture and sub-sectors).

Date: 27.01. 2020

Plovdiv

**REVIEWER:**

(Prof. Dr. Nelly Bencneva)