

REVIEW

FROM PROF. DR.SC. KIRIL PETROV ANGUELOV

(SCIENTIFIC SPECIALITIES: "ORGANIZATION AND MANAGEMENT OF PRODUCTION", "ECONOMICS AND MANAGEMENT", "ORGANIZATION AND MANAGEMENT OUTSIDE THE SPHERE OF MATERIAL PRODUCTION" AND)

OF DISSERTATION TITLED "INCREASING THE COMPETITIVENESS OF THE SUPPLY CHAIN OF BULGARIAN ENTERPRISES THROUGH THE USE OF BLOCKCHAIN TECHNOLOGY", WITH AUTHOR RUSEN GIGOV IN UNIVERSITY PROF. DR. ASSEN ZLATAROV BURGAS ECONOMICS AND MANAGEMENT DEPARTMENT

FOR THE AWARD OF EDUCATIONAL AND SCIENTIFIC DEGREE "PH.D." IN SCIENTIFIC FIELD 3.7. „ADMINISTRATION AND MANAGEMENT" DOCTORAL PROGRAMME "ORGANIZATION AND MANAGEMENT OF PRODUCTION/ INDUSTRY "

1. Information about the dissertant

The dissertant graduated in Economic Management (Bachelor and Master) at University Prof. Dr. Assen Zlatarov - Burgas. His master's degree is in the field of "Financial Management of the Enterprise". In 2021, he graduated from the AGQ of the same university and obtained a teaching license in Geography. Since 2019, he is a full-time PhD student in the PhD program "Organization and Management of Production / Industry".

He successfully passed all his examinations of the candidate minimum and submitted his dissertation for consideration at the Department of Economics and Management of the University "Prof. Dr. Assen Zlatarov" – Sofia, according to the applied national legislation. At a meeting of the aforementioned Department the dissertation was accepted for further proceeding to the scientific jury.

The dissertant's professional experience is related to the provision of various financial services in the banking and insurance sectors. Since 2022, he has been a financial consultant at EuroLife Bulgaria Ltd., having previously worked in various positions, including as an intern at organizations such as Allianz Bulgaria AD and the Bulgarian Chamber of Commerce and Industry. It should also be noted that the

dissertant has experience as a lecturer in digital technologies in the implementation of student mobility for practice under the Erasmus+ Programme.

2. Relevance and Significance of the Dissertation

The dissertation deals with issues related to the ways of increasing the competitiveness of the supply chains of Bulgarian enterprises through the use of blockchain technology.

The object of the study are economic units located in Bulgaria but operating in supply chains, both at national and international level.

The subject of research in the dissertation is the possibility of increasing the competitiveness of the enterprise through blockchain technology, the adoption of which is influenced by certain factors (internal to the business organization).

The main objective of the dissertation is to establish the possibility of increasing the competitiveness of the supply chain of Bulgarian enterprises through the use of blockchain technology.

Currently, this scientific problem is particularly relevant for the economic practice in the conditions of globalization and in fact has the potential to provide an opportunity for competitiveness of Bulgarian enterprises.

This research deepens the knowledge related to blockchain technology in the supply chain, thus better competitiveness of enterprises can be ensured. The achieved results and conclusions can be built upon and used in future developments for a comparative analysis between Bulgarian and foreign organizations in the level of blockchain usage in supply chains.

Taking into account all that has been said so far, as well as the importance of blockchain technology in the modern business world, it can be determined that the problem defined in this way is extremely actual and significant for science and management practice.

3. Brief description of the submitted dissertation

The dissertation has a total of 231 pages, of which 212 are main text. It

consists of an introduction, three chapters and a list of references used. The content of the chapters is divided into separate paragraphs, which end with specific summaries, conclusions, practical recommendations. The main text contains 44 tables and 16 figures.

The list of references used contains a total of 261 titles, including 203 scientific publications and 58 Internet resources. The main reference is to scientific sources such as monographs, studies, articles and books.

In the introduction of the study, the relevance and importance of the topic of the study is justified. The object and subject of the study are defined. The limitations of the study are outlined. The aim, sub-objectives and objectives of the study are defined. The methodology applied and the information base on which the study is based are presented.

Research problems are identified. The research thesis is stated. The main thesis defended by the dissertation is that blockchain technology increases the competitiveness of the enterprise in case it operates in the supply chains.

In line with focusing on obtaining concrete actionable results, the limitations of the research have been properly selected.

Chapter 1, "Literature Review on the Topic", traces the supply chain competitiveness with its opportunities, advantages and disadvantages. The blockchain technology as well as its application in the supply chain of enterprises is discussed in depth. An analysis of the models for evaluating the influencing factors in the management decision to use blockchain technology in supply chains is presented.

In Chapter 2: Research Methodology, the research model is presented, including: the conceptual basis of the research methodology; a description of the variables influencing the opportunities for increasing competitiveness in the use of blockchain technology in the supply chain; and the research hypotheses are developed. This chapter also describes in detail the methodology on which the research was developed, namely: the research design and instrumentation; and the description and rationale of the questionnaire developed and used for the research. The stages and the description of the analyses to process the results obtained are

presented.

Chapter 3: "Collection, processing and analysis of results" contains the actual part of the study. Here the computational procedures applied, the interpretation of results, the proof of hypotheses and general conclusions and implications are presented in depth and detail. The chapter begins with the descriptive statistics of the raw data obtained in the course of the empirical study, with the reliability and validity analysis of the data and the study including: reliability analysis of the measurements, performance of factor analysis, regression analysis, stepwise (logistic) analysis with sub-variables obtained as a result of factor analysis, analysis of residuals. The chapter concludes with a test of the research hypotheses and conclusions.

The conclusion summarizes the main results of the dissertation and outlines the directions for its development.

4. The methodology of the study

The dissertant Rusen Gigov has appropriately selected the research tools (approaches and methods of scientific research) necessary for the fulfillment of the main goal and objectives of the dissertation and has applied them correctly and conscientiously. The methods used in the study are generally accepted scientific methods for conducting research. The main ones in this regard are the analysis of Bulgarian and foreign sources, own empirical research with respondents, factor and logistic analysis.

5. Evaluation of scientific and scientific-applied contributions

My overall acquaintance with the dissertation and the candidate's abstract are grounds to draw the general conclusion that the dissertation submitted for defense contains scientific-applied and applied results that relate to a contribution to the development of the concept of using blockchain technology in the supply chain to enhance the competitiveness of the enterprise.

I substantially accept the contributions claimed in the thesis as actually achieved, and I have grouped them as follows:

The following scientific-applied contributions have been achieved:

1) A critical literature review of the opportunities for increasing the competitiveness of the supply chains of Bulgarian enterprises through blockchain technology is made, presenting the authors' interpretations.

2) A methodological approach for assessing the impact of blockchain technology on the competitiveness of supply chains is developed. The latent and sub-latent factors influencing the applicability of blockchain technology in enhancing the competitiveness of supply chains of Bulgarian enterprises are identified. Dependencies reflecting the degree of influence of the leading sub-latent factors on the competitiveness of supply chains are identified.

3) Opportunities for increasing the competitive advantages of supply chains are demonstrated, with calculations proving the importance of inclusion in a blockchain network.

The dissertation also has the following applied contributions:

1) Recommendations are presented for using the methodological approach to assess the impact of blockchain technology on the competitiveness of supply chains.

2) The need for the introduction of blockchain technology in Bulgarian enterprises is identified in order to position Bulgarian enterprises in global digitized supply chains.

The scientific-applied as well as the applied results find their direct application in Bulgarian enterprises, allowing to make a comparative analysis with foreign business organizations.

As a result, the aim and objectives of the dissertation have been fulfilled by obtaining scientifically-applied and applied results that relate to a contribution to enriching the existing knowledge of the concept of using blockchain technologies in supply chains to improve the competitiveness of the enterprise.

6. Evaluation of the dissertation publications

PhD student Rusen Gigov is the author of ten publications related to the researched issues of the dissertation. Two of the publications are independent and the

- rest - co-authored mainly with his scientific manager. The presence of three publications that are indexed and referenced in world scientific databases such as Web of Science or Scopus makes a very good impression. It should also be noted that these publications have been cited by foreign scholars, making the dissertant's scientific achievements much more visible to the global scientific community.

The publications analyze different aspects of the topic investigated in the dissertation. There is no difference between the manner, approach and analysis that is done in the dissertation and in the research articles presented. Their number and orientation fully satisfy and even several times exceed the requirements for the degree of Doctor. This gives me a reason to assume that the dissertation is an independent creative product realized by the doctoral student.

7. Evaluation of the abstract

The submitted abstract fully corresponds in structure and content to the dissertation I reviewed. All requirements for its layout have been met and all necessary attributes have been included. From the abstract one can get a clear picture of the work done in the dissertation.

8. Critical comments, recommendations and questions

PhD student Rusen Gigov presents a dissertation in which excellent theoretical preparation and effective science-practice relationship stand out. This gives me grounds to make specific recommendations in order to deepen the achievements so far and the future scientific growth of the PhD student:

1) In the literature review, I find that the PhD student should more boldly polemicise with the scholars he cites, thus making his own theses stand out more clearly.

2) I believe that the PhD student convincingly demonstrates his potential as a young scholar and should focus his future scholarly pursuits in research with international teams.

3) With a view to further dissemination of the dissertation's scientific theses, it

is advisable to publish the dissertation, after appropriate revision, in the form of a monograph. In this way, the author's scientific theses will be available to a wider range of interested scientists and entrepreneurs.

Stylistically and technically, the layout of the dissertation and the abstract is not free from a limited number of inaccuracies, repetitions and stylistic errors, which do not detract from its scientific value, but make the work difficult to read.

The above comments and recommendations do not detract from the merits of the study. The dissertation is a well-formed scientific work.

9. Conclusion

The proposed dissertation by Mr. Rusen Zhelev Gigov on the topic "Increasing the competitiveness of the supply chain of Bulgarian enterprises through the use of blockchain technology" is in full compliance with the requirements for the degree of PhD according to the applied national legislation.

In this dissertation, I have found original, relevant and significant scientific and applied advances that contribute to the development of the concepts of using blockchain technology to enhance supply chain competitiveness.

There are the necessary grounds to declare my positive evaluation and I propose the esteemed scientific jury to award the degree of PhD in the Doctoral Programme "Organization and Management of Production/ Industry", professional field 3.7 "Administration and Management" to Mr. Rusen Gigov.

August 15, 2023
Sofia

Signature:

(Prof.Dr.Sc. Kiril Anguelov)

