

Opinion
of a member of the Scientific Jury
for obtaining the educational and scientific degree „Doctor“
under the program „Finance, money circulation, credit and insurance“ (Finance)
in D. A. Tsenov Academy of economics - Svishtov

Prepared the opinion: Assoc. Prof. Dr. Ivaylo Mihaylov Mihaylov, Burgas State University „Prof. Dr. Assen Zlatarov“, habilitated in the scientific specialty 05.02.05 „Finance, money circulation, credit and insurance“.

Grounds for presenting the opinion: participation in the composition of the scientific jury for the defense of the dissertation according to Order № 571/ 01 July 2025 of the Rector of D. A. Tsenov Academy of Economics - Svishtov.

Author of the dissertation: PhD student Tsvetomira Georgieva Veleva (D010222267), full-time form of study in the doctoral program „Finance, money circulation, credit and insurance“ (Finance) at the Department of Finance and Credit at the D. A. Tsenov Academy of Economics - Svishtov.

Topic of the dissertation: „Digital transformation in banking – risks and financial efficiency“.

Scientific advisor: Assoc. Prof. Dr. Zhelyo Vatev Vatev, Finance and credit department, D. A. Tsenov Academy of Economics - Svishtov.

I. General presentation of the dissertation

The dissertation is structured in accordance with established academic standards and includes: an introduction, three main chapters, a conclusion, a list of references, as well as a declaration of originality of the scientific work. The introduction presents the relevance of the chosen topic, which is determined by the importance of digital transformation and the key role of credit institutions in the modern economy. The goal, objectives and subject of the study are consistently stated. The research thesis states that „*in the process of digital transformation, banks in Bulgaria face challenges related to the use of relatively outdated banking systems, which limits their ability to provide the necessary flexibility and innovative functions, and they are of key importance for competitiveness in a digital environment*“.

The development includes 195 pages of main text, 34 figures and 7 tables. The number of literary sources used is 110, including Internet sources, of which 38 are in Bulgarian and 72 are foreign. It is striking that the majority of the references are to contemporary sources (93% of the cited sources are from the last 10 years). I believe that the literature has been used in good faith and correctly, as this has been stated by the author with a declaration of originality of the dissertation work.

II. Assessment of the form and content of the dissertation

Reading the dissertation gives me reason to claim that the author possesses solid knowledge of the scientific issues under consideration. The topic is undoubtedly of high relevance in the

context of contemporary research and is characterized by a clear practical applicability. The text is structured in three chapters, as follows:

The first chapter is dedicated to the theoretical and applied aspects of digital transformation in the banking sector. Chronologically, the author reviews the specialized literature on the topic and traces the evolution of banking from the point of view of its technological development. The transition from multi-channel through omni-channel to optimal banking is analyzed. The emphasis is placed on the prerequisites for digital transformation in banking, as the author examines them in three directions: prerequisites related to the improvement of information technologies; financial-economic and socio-demographic prerequisites. At the end of the chapter, conclusions from the study are presented.

The second chapter examines risk management and the assessment of the effectiveness of digital transformation in banking. The risk profile of digital transformation in banking is analyzed, and for this purpose the risks of digitalization of the banking business are identified; a factor analysis of the risks arising in the process of digitalization is performed; the possibilities for quantitative risk assessment and ways to protect against digital risks are outlined. Within the framework of this part of the dissertation, the following working hypothesis is tested: *digital transformation, when managed with a comprehensive approach, reduces risks and improves the financial efficiency of banks, optimizing the relevant processes. The chapter ends with conclusions.*

In the third chapter, doctoral student Tsvetomira Veleva conducts an empirical analysis of the state of digital transformation in banking in Bulgaria. The problems and prospects for risk management and increasing the efficiency of digital transformation in banking in the country are examined. For the needs of the study, an author's survey was conducted among employees of various banks in Bulgaria. At the end of the study, optimization solutions related to risk management and efficiency in the digitalization of banks in Bulgaria are sought, and for this purpose a SWOT analysis was conducted. The chapter ends with summaries.

The methods chosen by the doctoral student for conducting the research are: the methods of analysis and synthesis, the method of observation, the comparative method, the inductive and deductive methods, the descriptive method and the method of the questionnaire survey. I believe that they correspond to the set goal and the tasks arising from it.

The abstract reflects the structure and content of the scientific work in a comprehensive and precise manner. It summarizes the main theoretical statements, scientific theses and the achieved results contained in the dissertation. Structurally, it consists of seven parts: a general description of the dissertation, main content and a synthesized presentation of the individual chapters, guidelines for future research on the topic, a reference to the contributions, a list of the doctoral student's publications, a reference to compliance with the national requirements of the Regulations for the implementation of the law on the development of the academic staff of the Republic of Bulgaria and an attached declaration of originality and reliability of the dissertation. The language used is distinguished by clarity and comprehensibility, while at the same time complying with the established academic standards applicable to the preparation of scientific works of a similar nature.

The publication portfolio of doctoral student Tsvetomira Veleva is related to the topic of the dissertation work and includes four scientific texts – two studies and two articles, all pub-

lished in Bulgarian. The presented publications reflect essential aspects of the dissertation research and are in direct thematic and methodological connection with it. The authorship of the scientific production is entirely individual, which testifies to the independent research activity of the doctoral student. The publication activity meets the requirements for awarding the educational and scientific degree „Doctor“ as, according to the Regulations for the implementation of the law on the development of the academic staff of the Republic of Bulgaria, the total number of points collected amounts to 50, with a normative minimum of 30 points.

III. Scientific and scientific-applied contributions of the dissertation

The study contains five scientific and applied scientific contributions, which could be summarized as follows:

First, the concept of "digitalization risk in banking" is defined and the risk profile of the digital transformation in the banking sector is analyzed. The elements of risk management are examined by identifying risk types, their sources, potential consequences, prevention methods and indicators for quantitative assessment.

Secondly, a system of specific quantitative indicators for assessing the effectiveness of digitalization in banks is argued, by tracking the interrelationships and cause-and-effect relationships between them.

Third, an empirical comparative analysis of Bulgarian banks in relation to the digital transformation process is carried out, accompanied by a critical assessment of its state in the dynamics of recent years.

Fourth, based on a survey conducted among banking specialists, the main difficulties and challenges are summarized, highlighting the discrepancy between the outdated technical infrastructure and the accelerated technological development. This discrepancy argues for the need for strategic investments and organizational changes.

Fifth, through a developed SWOT analysis, advantages, limitations, opportunities and threats to digitalization are identified, based on which specific proposals are formulated for optimizing efficiency and risk management in the context of digital transformation in the banking system of Bulgaria.

IV. Critical notes and questions on the dissertation

The work is well structured and logically presented. I have no complaints about its design and content.

While reading the dissertation, the following questions arose:

1. If digital transformation creates new risks, how will this affect the overall risk component of assets, and hence the capital adequacy of banks?
2. How would you comment on the emergence of so-called neobanks (Revolut, Monzo etc.) in the context of digital transformation? Rather as a threat to traditional banks or as a driving force that challenges traditional banks to rethink their business models and adapt to changing consumer expectations.

V. Summary assessment of the dissertation and conclusion

The dissertation submitted to me for review on the topic „*Digital Transformation in Banking - Risks and Financial Efficiency*“, developed by **Tsvetomira Georgieva Veleva**, meets the established requirements for a doctoral dissertation in terms of both volume and scientific quality.

The doctoral student has achieved the formulated objectives of the research, demonstrating in-depth knowledge of the theoretical framework, an analytical approach to empirical data and the ability to critically interpret the results. The topic is relevant and significant, contributing to the development of scientific knowledge in the field of digital transformation of the banking sector, with particular attention to risk aspects and financial efficiency.

In view of the arguments presented and the assessment made, I give a positive opinion on the dissertation work and recommend to the scientific jury to vote „for“ the award of the educational and scientific degree „Doctor“ to **Tsvetomira Georgieva Veleva** in the field of higher education 3. Social, economic and legal sciences, professional field 3.8. Economics, scientific specialty "Finance, monetary circulation, credit and insurance".

Date: July 29, 2025 r.

Prepared the opinion:

Assoc. Prof. Dr. Ivaylo Mihaylov