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STANDPOINT

by **Georgi Marinov Georgiev**

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about a dissertation for the award of the scientific degree "Doctor of Science"

in the field of Higher education 3. Social, economic and legal sciences

Professional field 3.8. Economics

Author: Prof. PhD Virzhiniya Ivanova Zhelyazkova

Topic: Management of banking risks in the transition to a circular economy

1. General description of the submitted documents

By order № 38 of 15.03.2021 of the Rector of the University of Finance, Business and Entrepreneurship (VUZEF-Sofia) Assoc. Prof. Dr. Grigoriy Vazov I have been appointed as a member of the scientific jury for providing a procedure for the defense of a dissertation on the topic "Management of banking risks in the transition to a circular economy" for obtaining the degree "Doctor of Science" in the field of higher education 3. Social, business and legal sciences, Professional field 3.8. Economics. The author of the dissertation is Prof. Dr. Virzhiniya Ivanova Zhelyazkova.

The materials transmitted by her include the following documents: CV, copy of the diploma for the acquired educational qualification degree "Doctor", copy of the diploma for the acquired educational qualification degree "Master", copy of the dissertation, copy of the abstract of the

dissertation, copy of the abstract of the PhD dissertation, three independent statements reviews, summaries from scientific publications, reference about the fulfilment of the minimal national requirements, report about citations.

Submitted are 1 study, 1 book chapter, 1 A paper, 11 B/B+ papers.

2. Brief biographical background of the candidate

Prof. PhD Virzhiniya Ivanova Zhelyazkova holds her PhD degree in "World Economy and International Economic Relations" from the Bulgarian Academy of Sciences, she also holds bachelor and master degrees in economics from the University of National and World Economy in Sofia. She specialized also in institutional economics in University of Roma Tre, Rome, Italy, as well as in two UN programs on climate change and financial institutions and environmental risk management. Since 2006 she works at Eurobank Bulgaria (after the merger - in Postbank Bulgaria), in several positions related to analytics of budgets and ecological and social aspects. Since 2013 she works in VUZF as professor and vice rector. In 2016-2018 she has been the national coordinator on financial matters of the program "Horizon 2020" for Bulgaria. She has various other professional activities.

3. Actual aspects of the topic and appropriate set of goals and research tasks

Circular economy and all of its aspects have come to the top of the global agenda in the last decade. However banking activities still need to be further refined to cope with the needs of ecology, therefore also the expediency of the topic.

4. Level of problem knowledge

The author is perfectly aware of the problem studied, due to the mixture of academic and business activities in the field.

5. Research methodology

The methodology used for the study is suitably selected, applied are quantitative and qualitative analysis techniques. Analyzed is the evolution of views and knowledge towards circular economy, elaborated is a model for management of the ecological and social risks in the banking institutions, which upgrades the EBRD model, and there is approbation of the model in Bulgaria.

6. Characteristics and general evaluation of the dissertation

The dissertation consists of 297 pages, with main text of 277 pages including 7 figures and 13 tables and 18 pages of appendices. As a structure the text is divided in an introduction, five chapters conclusion and references. Literature reference covers a total of 158 sources in several languages.

After a start with an assessment of the climate change on the economy, the author provides a taxonomy of financial risks and the global regulatory framework for counteracting against climate change. The text continues with a deep representation and discussion on the notion of circular economy with further clarifications about the resource background of the circular economy, emphasizing the aspects concerning the bank system and the capital markets. Logically, it follows an overview of accounting practices on environment related matters. The heyday of the research is the elaboration and approbation of a model for assessment of environmental and social risks, based on the EBRD model. Focals are environmental and social risks in corporate credit practice in Bulgaria. On the basis of the elaborated model, practical recommendations are drawn.

In my opinion, the structure and the text as a whole fully reflects the conducted research as well as it presents the model in an understandable way. The text does not reproduce other, earlier texts of the author, in particular her PhD thesis.

7. Contributions and significance for science and practice

Most important result from the study is the proposed 4-level model of governance of eco-risks, including assessment of assets, with a point on real estate. Emphasized is the need for development of ecological products, and especially of deposits linked to ecological activities.

Among the major contributions of the model is the accentuation on low-level actions. In the proposed model it is the bank who assesses the ecological risks connected with the real estate, and not the official authorities. Such type of actions contribute to better understanding of the problems and to more adequate handling of problematic situations, due to the availability of better and more abundant information on the matter. However, the envisaged physical visits of the real estate raise some questions about the feasibility of the assessments. On the one hand, this is a good way to gather information, but on the other hand, it is time consuming and not prone to certain falsifications, as it is scrupulously underlined by the author in a comment for the need for conscientiousness of the client. Refinement of the model to exclude physical visits could be regarded as a possible way for improvement of the model. Automatisations of the model would allow for using artificial intelligence techniques, which will add to the reliability of the conclusions.

The emphasizing of the managerial capacity to understand the ecological risks is also an important part of the model. The author considers the informative nature of the eco-report as most appropriate for Bulgarian conditions. The proposed adapted scorecard for assessment of the ecological and social risk is an important result from the appropriately made empirical study based on large datasets and with lots of simulations. Valuable critique on the EBRD model is made, with an emphasis on the specifics of the bank which attempts to use the model.

The elaborated deep representation and discussion on the notion of circular economy with further clarifications about the resource background of the circular economy is also a significant contribution to knowledge in the field. Same is to be acknowledged for the overview of accounting practices on environment related matters with the emphasis on the aspects concerning the bank system and the capital markets.

In my opinion, the presented text of the dissertation contains valuable contributions to theory and practice for Bulgarian banks.

8. Evaluation of the publications on the dissertation

The refereed publications submitted in full-text by Prof. Dr. Zhelyazkova in relation to the dissertation are 14, as follows: 1 book chapter, 1 study, 1 type A paper, 11 type B/B+ papers, all of them are single-authored, and in their majority they are in English language.

For the reported period 2019-2021 Prof. Dr. Zhelyazkova has 7 type A (3 in Scopus, 4 in WoS), and 11 B/B+ citations (in proceedings with a scientific review), this score is above the minimal national requirements.

All presented publications are duly refereed and have already attained the interest of scientific readers. The publications represent the various aspects of the dissertation in its entirety, practically all of the pivotal positions of the dissertation have found their place in the related publications.

9. Compliance with the Bulgarian minimum national requirements (MNR)

The author entirely fulfils the minimal national requirements for obtaining the degree of "doctor of sciences".

10. Personal participation of the candidate

The presented study is entirely elaborated by the author. The results and the contributions formulated are entirely a personal merit of the author. There are no signs of plagiarism.

11. Evaluation of the abstract

The abstract presents the dissertation entirely and authentically, it is conform with the respective normative requirements.

12. Critical remarks and recommendations

The proposed model seems to tend to assess certain types of credits as less risky, according to the obtained empirical results. Although such abatement in traditional bank conservatism may be fruitful in the recovering of the economy, especially in Bulgarian realities, further clarification of the peculiarities of the model is strongly advisable, and this could be a direction for future research.

13. Personal impressions

I know the author personally, I am strongly impressed by her organising and teaching skills and her in-depth knowledge of circular economy related patterns in Bulgarian economy.

14. Recommendations for further contributions and results

Further deepening in the mechanics of the processes studied, towards elaborating more detailed and broader datasets seems to be advisable, with the prospect of possible automatization of the decision processes in banking. The weights of the criteria in the proposed model could be additionally verified and reconsidered, and this could be an additional direction of further research.

Further popularisation of circular economy aspects of banking is definitely a must in Bulgaria.

I recommend the publication of the dissertation as a book.

CONCLUSION

To my opinion, the dissertation contains scientific, scientific-applied and applied results, which represent an original contribution to science and meet all the requirements of the Law for development of the academic staff in the Republic of Bulgaria (ZRASRB) and the Regulations for implementation of ZRASRB. The presented materials and dissertation results completely correspond to the specific requirements of the Regulations for admission and training of doctoral students at the University of Finance, Business and Entrepreneurship (VUZF-Sofia).

The dissertation shows that the candidate Prof. Dr. Virzhiniya Ivanova Zhelyazkova has in-depth theoretical knowledge and professional skills in Professional field 3. 8. Economics, demonstrating qualities and skills for self-conduct of research.

In relation to the written above, I confidently give my positive assessment of the research presented by the reviewed above dissertation, abstract, results and contributions, and I suggest to the esteemed scientific jury to award the degree of "Doctor of Science" to Prof. Dr. Virzhiniya Ivanova Zhelyazkova in the field of higher education 3. Social, economic and legal sciences; Professional field 3. 8. Economics.

13.04.2021

Signed:

(Assoc. Prof. PhD Georgi Marinov)