

REVIEW

In connection with the defence of a dissertation for the acquisition of the educational and scientific degree “PhD” in the field of higher education: 3. Social, economic and legal sciences, Professional field: 3.8 Economics

PhD programme: Finance and Insurance

Topic of the dissertation work: “THE ROLE AND IMPORTANCE OF FINANCE, ACCOUNTING AND FINANCIAL MATHEMATICS IN COMPANIES”

Author of the dissertation work: Ardit Hadzija

Scientific supervisor: Prof. Stanislav Dimitrov, PhD

Author of the expert opinion: Prof. Tsvetan Ilieva, PhD

1. General presentation of the materials received

This expert opinion has been prepared on the basis of Order No.161/08.05.2024 of the Rector of the Higher School of Insurance and Finance (VUZF) – Prof. Boris Velchev, PhD, in accordance with Art 4(2) of the Academic Staff Development Act in the Republic of Bulgaria and Art 30(2) of the Regulations for the implementation of this Act, as well as in accordance with Art. 47(7) of the Regulations for the Admission and Training of PhD students at VUZF.

The documentation provided to me for the competition includes: dissertation, abstract, list of scientific publications, abstracts of publications for participation in the procedure, reference for compliance with the scientific requirements, CV, declaration of authorship and conscientious development of the dissertation. In compliance with the requirements of Art. 6(1) and (2) of the LDASRB there is evidence of a Master’s degree and a dissertation on “The role and importance of finance, accounting and financial mathematics in companies”. This gives me grounds to state that the regulatory requirements for admission to participation in the dissertation procedure for the award of the scientific and educational degree “PhD” are met.

2. Brief biographical data about the PhD student

PhD student Ardit Hadzija was born on 20.07.1988 in Albania. In the period 2007-2013 he graduated with Bachelor’s and Master’s degree in Mathematical Sciences at the University of Tirana, Albania.

The professional path of the PhD student starts in 2010 as a manager in a book distribution company. Since 2011 he has started his teaching career in mathematical sciences, passing through a number of Albanian and foreign universities - PETRO NINI LUARASI HIGH SCHOOL, EPOKA UNIVERSITY, MEHMET AKIF COLLEGE BOYS, MEMORIAL INTERNATIONAL SCHOOL OF TIRANA, TURGUT OZAL COLLEGES, AMERICAN COLLEGE OF THE MIDDLE EAST (KUWAIT) и KING'S COLLEGE TIRANA, where he currently works. He is fluent in written and spoken Albanian, Turkish, English, Italian, Spanish and Croatian.

3. Topicality of the theme and appropriateness of the set goals and objectives

The research area chosen by PhD student Ardit Hadzija can be defined as topical. At the modern stage of the development of business processes, referred to by the world research community as financial capitalism, the financial management of companies is of priority importance for their success. The place of mathematics in this process is undeniable. Moreover, the digitalization of social processes implies an increasing penetration of mathematical algorithms both in the everyday life of every person and in business processes at the level of companies.

In order for companies to achieve financial success, it is also important for them to have a financial strategy. Its development and practical implementation require knowledge of the specifics of the emergence and management of financial flows by company management. This, in turn, requires serious knowledge in financial mathematics and modeling, accounting and auditing. Accounting plays a vital role in business management as it helps track income and expenses, ensures compliance with legal requirements, and provides investors, company management and public institutions with quantitative financial information that can be used in making business decisions.

The above gives me reason to define the research problem identified by the PhD student as dissertable.

The **thesis** defended in the thesis is that effective financial management is crucial for the sustainable development and dynamic growth of companies. With the result of its proving, a PhD student Hadzija has realistically and in achievable dimensions defined the goal of his dissertation – to reveal the approaches to financial management of companies by using mathematical algorithms that create prerequisites for increasing the return on investment and the market price of shares. For the realization of the so-defined goal in the dissertation study, four hypotheses were tested – one leading and three auxiliaries.

In view of this of the **set goal** and research hypotheses, the PhD student defines as an object of study the financial management of companies by applying mathematic algorithms. The **subject** of the PhD student's dissertation are the possibilities of financial mathematics financial management and accounting of companies.

4. Knowledge of the problem

From what is shown in the dissertation it becomes clear that the PhD student is familiar with the development of researched by him problem of a number of authors. This gives him the opportunity to go deep into it.

5. Methodology of the study

In order to achieve the goal defined in the development, PhD student Hadzija uses adequate scientific and research methods: induction and deduction, comparative analysis and synthesis, literature review, etc. to a considerable extent they make it possible to carry out the research tasks.

6. Characteristics and evaluation of the thesis

The dissertation has a total volume of 161 pages. Structurally, it consists of: an introduction, an exposition in three chapters, a conclusion and a bibliographical reference including 119 sources in English.

Chapter One of the dissertation can be defined as entirely theoretical. In it, the PhD student presents the essential features of financial management theory. Paragraph 1.1 clarifies the importance and role of finance in company activity. Paragraph 1.2 directs the PhD student's research focus to funding 's research focus to funding opportunities for company activity by presenting combinations of sources and methods. In particular, attention is paid to investment and capital spending, the relationship between dividends and return on capital, as well as the problems of debt financing, is examined.

In paragraph 1.3 the relationship between strategic planning of company activities and budgeting is analyzed. The main approaches to managing financial flows at company level are presented. From the content of paragraph 1.4, it becomes clear that PhD student Hadzija defines the information security of financial management as the primary task of management.

At the end of the first chapter, reasonable conclusions are drawn on the basis of the theoretical review carried out.

Chapter two of the dissertation I also defied as theoretical. It presents the role and importance of accounting in the financial management of companies. In particular, the objectives of accounting in the financial management of company activity are examined – mostly from the perspective of financial and management. Here attention deserves the author's view on the importance of accounting information in the preparation of budget forecasts and financial statements in strict compliance with national legislation.

Chapter three of the dissertation is practical – methodological in nature. In it, the attention of the PhD student is focused on determining the directions in which the principles and approaches of financial mathematics can be used in the management of company activities. Its capabilities in such areas of company practice as: cash flow management, risk management, marketing and strategic planning, etc. are analyzed.

The dissertation conclusion contains more important conclusions than that presented in the three chapters. It summarizes the author's findings, conclusions and recommendations, while offering guidelines for future research on strategies for financial management of companies. This gives me reason to designate PhD student Hadzija as an author with a critical research view.

7. Contributions and Significance of the Development for Science and Practice

In my opinion, the six scientific contributions of the PhD student mentioned in the reference correspond to what is shown in the dissertation. They have an entirely theoretical-methodological character and I accept them as an author's achievement.

8. Assessment of the publications on the thesis

Scientific publications on the topic of the dissertation, in which the author's ideas are promoted— three articles – also speak for a formed research outlook. On the basis of the reference provided to me in the documents of the PhD student, I can confirm that the research work of the author corresponds to the scientific-metric requirements of the procedure for obtaining the PhD degree.

9. Abstract

The abstract is 41 pages long and is developed according to the requirements and has the necessary requisites for such a development. It reflects what is presented as structure and content in the dissertation.

10. Personal participation of the PhD student

The dissertation, abstract and publications of PhD student Ardit Hadzija presented to the attention of the scientific jury as an achievement of the author. The literature and information sources indicated in the bibliographic reference are used correctly. I have not established plagiarism practices.

11. Critical comments and recommendations

Like any such work, the dissertation presented by PhD student Hadzija has some shortcomings. Of a technical nature, such is the excessive segmentation of the heads. There are paragraphs and subparagraphs of one or two pages. In meaningful terms, in my opinion, the lack of practical-applied aspect of the study is a disadvantage. It states an assessment of the possibilities of financial mathematics in the management of company activity, rather than tested mathematician-statistical methods and models with real data.

Pointing out the shortcomings and weaknesses of such a development aims to capture the researcher's attention in the right direction in the future activities

12. Personal impressions

I do not know the PhD student and have no personal impressions of him. In preparing this review I have been guided solely by what is presented in the thesis and publications.

13. Recommendations for future use of the dissertation contributions and results

The main recommendation I make to PhD student Hadzija is to focus more of his efforts on practical research. The possibilities afforded by mathematical modeling today are immense

CONCLUSION

In conclusion, I believe that PhD student Ardit Hadzija meets the scientific and legal requirements for the award of the degree "PhD" in the field of higher education 3. Social, economic and legal sciences, professional field 3.8 Economics and possesses the necessary professional and personal qualities. Therefore, I confidently give **my positive evaluation** of the research conducted, as represented by the above-reviewed dissertation, abstract, results achieved and contributions and propose to the Honorable Scientific Jury **to award** the educational and scientific degree "PhD" to Ardit Hadzija.

05.06.2024

Signature:

/Prof. Tsvetan Iliev, PhD/