

# STATEMENT

by **assoc. prof. Biser Yordanov Krastev, PhD**  
**Teacher in the Department of Economics and Finance**  
**at the University of Agribusiness and Rural Development - Plovdiv**

of a doctoral thesis for obtaining the educational and scientific degree "**doctor**"

in the Field of higher education **3. Social, economic and legal sciences**

Professional field **3.8. Economics**

Doctoral Program "**Finance, Insurance and Social Insurance**"

Author: **Ardit Haxhija**

Doctoral thesis topic: "**The role and significance of finance, accounting and financial mathematics in companies**"

## **1. General description of the presented materials**

By order № 161/08.05.2024 years of the Rector of the VUZF University prof. Boris Velchev, D.Sc. I have been appointed as a member of the scientific jury to ensure a procedure for the defense of a dissertation work on the topic "**The role and significance of finance, accounting and financial mathematics in companies**" to acquire the educational and scientific degree "doctor" in Field of higher education 3. Social, economic and legal sciences, Professional field 3.8. Economics. The author of the dissertation work is **Ardit Haxhija**, a doctoral student of independent training at the department "Finance and Insurance" at VUZF University with academic supervisor **prof. Stanislav Dimitrov, PhD**.

The materials submitted by the doctoral student include documents according to the presented inventory: dissertation work, abstract, declaration of originality and credibility, certificate to the fulfillment of the minimum national requirements for the acquisition of the educational and scientific degree "doctor" in professional field 3.8. Economics, a list of publications on the topic of the dissertation work (3 articles), copies of these publications, summaries of each of them, and a curriculum vitae. The list of materials is complete and fully complies with the requirements of Art. 40 of the Regulations for admission and training of doctoral students at VUZF University.

## **2. Brief biographical details of the candidate**

PhD student Ardit Haxhija completed his higher education as a "Bachelor" in Mathematics in 2011 at the University of Tirana, Albania. In 2013, he obtained a Master's degree in mathematics at the same university. In April 2014, he increased his qualifications by obtaining a certificate as a professional teacher of mathematics, in the month of December of the same year he acquired a license as a teacher of mathematics from the Ministry of Education and Sports of Albania, and in 2018 he received a faculty award from the American College in the Middle East in Egaila, Kuwait.

Ardit Haxhija has extensive teaching experience as a mathematics teacher at Memorial International School in Tirana during the period 2012-2014, at Turgut Ozal Colleges in Tirana during the period 2014-2016 and at the American College of the Middle East in Egaila, Kuwait during the period 2016-2020. He is currently working as a senior teacher of mathematics at the King's College of Tirana. He speaks English and Italian and to a lesser extent Spanish, Turkish and Croatian.

### **3. Characterization and evaluation of the dissertation work**

The doctoral thesis submitted for reviewing has a total volume of 159 pages. It consists of an introduction (7 pages), chapter one (4 pages), chapter two (6 pages), chapter three (26 pages), conclusion (3 pages), scientific contributions and a list of references (9 pages). The dissertation work also contains a title page, an abstract, a list of included figures, and a table of contents (4 pages in total). The literature used covers 119 sources, all of which are in English and used from the Internet.

The introduction presents the social justice of the study, its subject and its purpose. The author has formulated one main, three special and one auxiliary hypotheses, the credibility of which should be confirmed or rejected. He has presented the research methods he used, the time frame, the information base of the dissertation research and the degree of development of the problem.

**Chapter one** consists of four paragraphs. In the first of them, the essence of corporate finance is clarified. In the second paragraph, their role in the development of companies is characterized. More specifically, the specifics of investment activity and budgeting are presented as techniques for allocating and investing financial resources to various assets to generate sufficient income for business companies, with which the latter can cover their operating costs and make a profit. . The author systematizes the various equity and debt sources for financing enterprises. The third paragraph emphasizes the importance of strategic financial planning in the process of financial management of business companies in a long-term aspect, as well as the peculiarities of cash flow management. The fourth paragraph describes the role of financial management in the process of business planning and making effective management decisions.

**Chapter Two** is made up of four paragraphs. In the first paragraph, the nature, objectives and functions of accounting are systematized. In the second paragraph, the doctoral student has classified accounting according to various characteristics, having thoroughly analyzed the specifics and subject of financial and management accounting. In the third paragraph, the role of accounting for the effective assessment of the companies' business, for the true and accurate reporting of their business operations and for the preparation of their financial statements in accordance with national and international accounting standards is reported. In the last paragraph of chapter two, Ardit Haxhija has analyzed the importance of accounting for corporate activity and the reliability of reported financial data.

**Chapter three** is 26 pages long and consists of five paragraphs. In the first paragraph, the author has derived a definition of financial mathematics as a branch of applied mathematics. The second paragraph identifies the main users of information generated by the financial mathematics toolkit. In the third paragraph, the spheres of its application in the field of risk management, stock trading, econometrics, forecasting, marketing and investments are outlined. The fourth paragraph reveals the connections and dependencies between financial mathematics and finance in the process of solving financial problems using mathematical models. The last paragraph of chapter three analyzes the connections between financial mathematics and accounting.

On the basis of the above, it can be concluded that Ardit Haxhija possesses the necessary theoretical and methodological knowledge related to the topic of his dissertation work. He is able to carry out independent scientific research, formulate research hypotheses and reach logical conclusions. From the information contained in the declaration of originality and credibility presented by him, I believe that the dissertation work is not borrowed from foreign publications, it clearly shows

the author's participation and it correctly reflects the scientific views and positions of the doctoral student.

#### **4. Contributions and significance of the development for science and practice**

The scientific contributions of the PhD student are formulated in the abstract to the dissertation work. They can be divided into two main groups. The first of them contains contributions of a theoretical nature, and the second - contributions of a scientific-applied nature.

In this regard, **the contributions of a theoretical nature** in the dissertation work are the following:

1. The role and importance of corporate finance and related financial methods and techniques for the effective management of enterprises are emphasized;
2. The role and importance of accounting for accountability and supply of diverse financial information to the management of business organizations are substantiated;
3. The specifics of financial mathematics and its relationship with the economy and in particular with corporate finance and accounting are systematized.

**The contributions of a scientific-applied nature** in the dissertation work are the following:

1. The validity of the main hypothesis formulated at the beginning of the dissertation, that business finance supports the optimization of the financial resources of enterprises and contributes to maximizing their market value, has been proven;
2. Measures have been developed to improve the functioning of financial and accounting activities in companies;
3. Activities are proposed to increase the efficiency of the finance and accounting system by applying mathematical models in companies.

In connection with the above, I believe that the contributions in the dissertation work faithfully and accurately reflect its scientific merits, as well as its significance for the development of theory and practice in the field of research and solving problems related to the use of mathematical methods in the financial and accounting activities of companies in order to improve them.

#### **5. Evaluation of publications on the dissertation work**

The list of publications presented by the PhD student contains three scientific publications.

By nature, all three publications are scientific articles. They were published in the journal "VUZF Review". This journal is included in the National Reference List of contemporary Bulgarian scientific publications with scientific review.

The first publication is entitled: "The Role and Significance of Finance in Companies". It was published in journal "VUZF Review", Volume 4, Issue 8, 2023, pp. 28-39.

The second article is titled: "The Role and Significance of Accounting in Companies" and is published in journal "VUZF Review", Volume 4, Issue 8, 2023, pp. 40-54.

The third publication is titled: "The Role and Significance of Financial Mathematics in Companies". It was published in journal "VUZF Review, Volume 4, Issue 8, 2023, pp. 55-71.

Ardit Haxhija's three scientific papers have been published in English. He is their sole author. The articles are closely related to the topic of the dissertation research. This gives me reason to summarize that they contribute significantly to the development of financial theory and practice.

## 6. Assessment of compliance with minimum national requirements

According to the report attached by Ardit Haxhija on the fulfillment of the minimum national requirements for the acquisition of the educational and scientific degree "doctor" in professional field 3.8. Economics he has 80 points. Of these, 50 points are awarded for the dissertation work developed by him and 30 points – for the 3 articles published in non-refereed journals with scientific reviewing. Therefore, the total minimum number of points by groups of indicators A and D from table 1 for the field of higher education 3. Social, economic and legal sciences according to the annexes to Art. 1a of the Regulations for the implementation of the law for the development of the academic staff in the Republic of Bulgaria has been fulfilled.

## 7. Abstract

The abstract is written according to the approved requirements. It contains the general characteristics of the dissertation work, its structure and content, a summary of the dissertation research, a reference to the scientific contributions, a list of publications on the subject of the doctoral thesis, a list of the literature used and a declaration of originality and reliability. The main results achieved in the dissertation are reflected in the abstract.

## 8. Critical remarks and recommendations

Having carefully familiarized myself with the dissertation work submitted for defense, I can make two main points critical notes on its author. The first of them is that the relevance and tasks of the research are not formulated in the introduction, and the second is that the dissertation lacks empirical research. However, this does not mean that the dissertation work is devoid of scientific merits and contributions. I recommend a dissertation student to deepen future researched her on the topic of the dissertation work, as well as to participate with their own scientific publications in various national and international conferences and scientific forums.

## CONCLUSION

The dissertation work has a completely finished form, **contains original scientific contributions** and can serve as a basis for future scientific research. It **meets all the requirements** of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation, as well as the Regulations for the admission and training of doctoral students at VUZF University. This gives me reason **to confidently award my positive assessment** for the conducted research presented by the above-reviewed dissertation work, abstract, achieved results and contributions, and **I propose to the honorable scientific jury to award the educational and scientific degree "doctor" to Ardit Haxhija** in Field of higher education 3. Social, economic and legal sciences, Professional field 3.8. Economics, Doctoral Program Finance, Insurance and Social Insurance.

Plovdiv  
03.06.2024

Prepared the statement: .....  
(assoc. prof. Biser Krastev, PhD)