

# 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: “Financial aspects of the construction sector in Turkey – an over-review of current and future trends”**

**Author of the dissertation work: Murat Aytimur**

**Scientific supervisor: Prof. Julia Dobreva, 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.129/20.03.2024 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. 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 fulfilment of the scientific-metric 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 “Financial aspects of the construction sector in Turkey – an over-review of current and future trends”. This gives me grounds to state that the legal requirements for admission to the dissertation defence procedure for the award of the scientific and educational degree “PhD”.

## **2. Brief biographical data about the PhD student**

PhD student Murat Aytimur was born on 29.05.1970 in the Republic of Turkey. In the period 1988-1992 he completed his higher education at Firat University, Turkey with

Bachelor degree “Science in Engineering”. In 2010 he obtained a Master’s degree from the National university, Baku, Azerbaijan.

Aytimur’s professional career started in 1993 in companies of the construction business, where he is still working. He is fluent in written and spoken Turkish, English, Bulgarian and Azeri.

### **3. Relevance of the topic and appropriateness of the objectives and tasks**

I can define the search area chosen by PhD student Aytimur as relevant because the construction sector is one of the strategically important for the economy of any country. The construction industry, both in Bulgaria and Turkey, has grown rapidly in recent years and is one of the driving forces of the economy. In this regard, I consider logical the PhD student’s understanding that the successful and sustainable functioning of companies operating in such an important sector depends on their effective financial management. The financial decision-making processes and practices that form the basis of financial management have a direct impact on the performance of companies. Effective implementation of factors such as resourcing, risk management, liquidity management, accounting and financial reporting practices is of utmost importance for companies operating in the sector to maintain their competitive position. This gives me a reason to define the research problem identified by the PhD student as dissertationable.

The thesis argues that effective financial management is crucial for the sustainable development and dynamic growth of the construction sector. With a view to proving it, PhD student Aytimur has defined realistically and in achievable dimensions of the aim of his dissertation – to reveal the financial management approaches of construction companies operating in different sizes in Turkey and to contribute to the enrichment to this scientific field with information. For the realization of the so defined aim in the dissertation research 4 tasks have been set. I accept them as creating a real opportunity to achieve the goal.

In view of the set aim and objectives, the PhD student defines the object of the study as the companies in the construction sector of the Turkish economy. The subject of the PhD student’s dissertation are the processes and practices of financial decision-making by managers of construction companies, which form the basis of their financial management.

### **4. Knowledge of the problem**

From what is shown in the dissertation, it is clear that the PhD candidate is familiar with the works of a number of Turkish and foreign authors on the problem he has studied. Murat Aytimur aptly points out that despite the existence of papers on various issues of the construction sector, there is a lack of academic research on financial management approaches in construction companies in Turkey. From what is presented in the dissertation statement I can state that the PhD student is familiar with the different aspects of the problem and this enables him to go into it in depth.

## **5. Methodology of the study**

In order to achieve the goal defined in the study, PhD student M. Aytimur used adequate research methods: induction and deduction, comparative analysis and synthesis, literature reviews, statistical methods – regression analysis, interview with interested parties, etc. To a considerate extent, they enable the research tasks to be accomplished.

## **6. Characteristics and evaluation of the thesis**

The dissertation has a total volume of 127 standard pages, of which 102 pages are substantive. Structurally, it consists of: an introduction, an exposition in three chapters, a conclusion and a bibliography including 142 sources in Turkish and English.

In **the first chapter** of the dissertation, PhD student Aytimur presents the essential features of construction financial management theory. In paragraph 1.1 he contrasts earlier conceptions of the role and purpose of finance in corporate practice with contemporary understandings of the need to formulate and implement focused financial management approaches at operational, tactical and strategic levels. On the basis of the theoretical review, Murat Aytimur opines the main objective of modern financial management is to maximize the desired financial benefits in accordance with the set objectives, whether they are individual or institutional.

In paragraph 1.2, the PhD student presents the features of financial planning of the company's activity considered as a process. The author's conclusion that financial planning is a managerial function that aims to determine the future course of action in accordance with the current financial situation and the objectives of the enterprise makes a good impression here. This requires the formulation of policies and strategies that are tailored to the dynamics of the environment. From this position, PhD student Aytimur identifies the purpose of financial planning: to harmonize cash inflows and outflows in terms of time and value in view of the need to maintain the firm's financial balance sheet. It also outlines the advantages that companies derive from financial planning.

Special attention is paid to supervision of financial planning, justifying the conclusion that measures to improve the profitability and efficiency of business activities, identified through financial analysis, can only be strengthened through financial audit.

In this regard, it is also worth noting the classification of financial plans made by the PhD student, dividing them into two groups –according to the purpose of their preparation and depending on their time scope. The first group discusses the features of normal and contingency financial plans. According to their time horizons, PhD student Aytimur divides the plans into short-, medium- and long-term. On the basis of what has been presented so far in Chapter One, an important scientific contribution for the PhD student is the transfer of all the highlighted features of financial planning to the level of the construction sector companies. Building on an understanding of the significant uncertainty and risk involved in

construction projects, the author discusses the particularities of cost estimating in a construction project, the specifics of project budgeting, the project financing process, revenue and cost stream management and risk management. In addition, the efficiency and cost – effectiveness of the construction project are analyzed and on this basis various strategies for improvement and optimization of the project are considered. In view of the current trends of digitalization of project are considered. In view of the current trends of digitalization of project management processes, the PhD student presents the possibilities of applying software solutions and tools for financial management of construction.

Social focus is given to current trends and future perspectives in construction financial management theory, including sustainable green building practices.

**Chapter Two** of the thesis presents the development of the construction sector in Turkey. For instance, the PhD student refers to the works of numerous Turkish authors and data from national statistics. To achieve his goals Murat Aytimur uses methods such as retrospective analysis, collection and processing of statistical information. Based on these, the PhD student has demystified his ability to apply graphical tools to visualize trends. In particular, the analyses of the contribution of the construction skeleton to the processes of urbanization, to the development of urban, industrial and transport infrastructure in Turkey, and to the growth of the country's GDP are noteworthy. As a contribution with practical-applied orientation I can define the SWOT analysis of the construction sector in Turkey developed by the author.

**Chapter Three** of the dissertation has a practical-methodological character. In it, the PhD student's attention is focused on identifying the difference between the financial management approaches of firms of different sizes operating in the construction sector. For this purpose, an analysis of financial decision-making processes, risk management practices and factors affecting the financial performance of firms was conducted.

Two separate data sets form the basis of the analysis. The first dataset is for listed real estate firms. By using them, an attempt is made to determine the financial efficiency of real estate companies. In this context, the PhD student carried out a panel data analysis to determine the impact of the determinants of profitability. The scope of the study includes REIT companies listed on the stock exchange and traded continuously in quarterly periods between 2018 and 2022. The ROE ratio was used to evaluate the financial performance of the companies mentioned.

In the second group are data obtained from an interview with managers of construction companies. They provide information on the processes of adaptation of construction companies to current economic conditions and changing regulations. Through an analysis of the responses, the challenges facing the sector and approaches to address them are outlined. Based on the information gathered from the interview, some more important conclusions were drawn such as: all firms use equity as the main source of financing for construction projects. Bank loans also play a role in project financing. The most commonly preferred method is project finance loans. Interest rates, risk management and market condition are factors that are taken into account when choosing a financing method. In periods of credit constraints, a presales approach, short-term funding decisions and cash management are applied. Companies are trying to meet their needs using both traditional and innovative financing tools in a balanced way.

The distribution of the sources of financing of construction companies operating in Turkey was estimated by the PhD student as follows. First, the equity utilization rate is around 60%. This shows that construction companies meet a significant part of their financing needs with their own capital. Second, 80% of companies use bank loans. As a result, it is concluded that bank loans are the most important external source for construction firms. Easy access to credit and favorable price were characterized the likely reasons for preference. Thirdly, the share of presales in financing is 40%, which defines it as a serious source of resources. Fourth, only 10% of firms use participatory banking, with Aytimur concluding that this alternative source is not yet widespread in Turkey.

Another indicator for which information was gathered from the interview is companies' cost control. According to the author, the share of companies that exercise effective cost control is about 80%. At the same time, the share of companies that use financial instruments accounting for inflation risk is 50 %, and that of companies that follow policies to hedge currency risk is 30%. The interpretation of the obtained information gives reason for PhD student Aytimur to conclude that the construction sector is less exposed to currency risk. Firms prioritize cost risk, followed by inflation risk.

The empirical analysis carried out in this part of the thesis has enabled the author to identify the factor affecting the return on equity (ROE) of companies in the construction sector. This enables the recommendation of practical action related to the financial management of construction companies. Thus, it is concluded that construction companies need to effectively manage their net sales and balance their short-term debt burden to increase their profitability.

**The conclusion** of the dissertation contains more important findings than those presented of the three chapters. It summarizes the author's findings, conclusions and recommendation, while suggesting directions for future research on financial management strategies of construction companies. This gives me reason to define PhD student Aytimur as an author with a critical research eye.

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

The four scientific contributions of the PhD student mentioned in the reference are, in my opinion, consistent with what is shown in the dissertation. Two of them are of theoretical-methodological nature, and the rest – of practical-applied nature. I think they are completely an authored achievement.

## **8. Assessment of the publications on the thesis**

The scientific publications on the topic of the dissertation, in which the author's ideas have been popularized – 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 30 pages long and is developed according to the requirements and has the necessary requisites for such a paper, except for the reference to the contributions. It reflects what is presented as structure and content in the dissertation.

## **10. Personal participation of the PhD student**

I accept the dissertation, the author's abstract and the publications of PhD student Murat Aytimur as the author's achievement. The literature and information sources mentioned in the bibliography are used correctly. I have no plagiarism practices.

## **11. Critical comments and recommendations**

Like any such work, the dissertation presented by PhD student Aytimur has some shortcomings. Such is the over-segmentation of heads. There are even one-two page paragraphs. Equally, there are some inconsistencies in the numbering which should be followed by chapters, paragraphs, sub-paragraphs, tables and figures.

These weaknesses are primarily technical and not so much substantive. They do not diminish the PhD student's achievements.

## **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 Aytimur is to focus more of his efforts on applying a wider range of indicators to assess the financial health of companies in the construction sector in Turkey. Moreover, in view of the need to fill the research field in this

area in Turkey, as the author emphasizes, a more serious scientific contribution would be achieved by comparison with companies in this industry in other countries.

## **CONCLUSION**

In conclusion, I believe that PhD student Murat Aytimur 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 Murat Aytimur.

**19.04.2024**

**Signature:**

**Prof. Tsvetan Iliev, PhD/**