

STATEMENT

ИКОНОМИЧЕСКИ УНИВЕРСИТЕТ ВАРНА

by Prof. Dr. Iordanka Hristova Iovkova

Bx. № PA 20 - 1452 / 05. 12. 2022r.

on the procedure for the award of the degree of Doctor of Science in the field of higher education 3. "Social, Economic and Legal Sciences", professional field 3.8. Economics, doctoral programme "Economics and Management (Construction and Real Estate)

1. General information.

Prepared by: Prof. Dr. Iordanka Hristova Iovkova, Department of Real Estate, UNWE, scientific specialty "Economics and Management"

Reason for giving the opinion: Resolution of the Scientific Jury of 04.11.2022 for appointment of reviewers and preparation of opinions.

Author of the dissertation: Krasimira Hristova Hristova-Bocheva

Dissertation topic: Market, prices and pricing in construction

2. General presentation of the dissertation

The presented dissertation is a reflection of the PhD student Krasimira Hristova's long-lasting interest in economic problems in the field of construction. The basis of these interests are the education and professional realization of the PhD student so far. She is a graduate of the High School of Architecture, Civil Engineering and Geodesy, her Bachelor's and Master's degrees are in Economics of Construction, she has worked as a technical supervisor, carrying out activities on preparation of price offers, market price studies, etc. From 2013 to 2020 she was a lecturer at the Department of Business, Investment, Real Estate, Varna, teaching courses close to the subject of her dissertation. Krasimira Hristova's education and professional activity give grounds to conclude that she has acquired the necessary theoretical knowledge, experience and practical skills related to the topic and problems addressed in her dissertation research.

The presented dissertation is in the volume of 170 pages of text material; it includes 7 annexes, presenting a significant volume of statistical information; a map for expert assessment of prices, pricing and pricing strategy of construction enterprises and tables with the results of the survey. The sources used include 101 literature sources in Bulgarian, Russian and English, 10 normative documents and 25 websites. They are appropriately selected in accordance with the topic of the dissertation, the dissertation research is based on their study and the theoretical research, analysis, formulations and practical aspects contained in them.

The textual material is structured into an introduction, three chapters and a conclusion. The construction of real estate objects is a capital-intensive economic activity, the final product of this activity is a product of investment nature and the price level of this product has a tangible impact on the development and growth of the economy as a whole and on the financial and economic situation and living standards of investors (various private and public entities). In this context, the topic of the dissertation has an enduring relevance. It has a

dissertation character, determined by the fact that for the most part pricing in construction remains in the field of the cost approach, although, as emphasized by PhD student Hristova, there is an aspiration and efforts are being made to apply also varieties of the market approach, to which we include the approach advocated by the author, based on "value". Along with what has been said, the introduction of the dissertation gives an idea of what and how the PhD student intends to research, what tasks she sets herself and what results she expects, and introduces the research thesis supported by the author.

The statement (chapters one, two and three) is subordinate to the topic of the dissertation and in terms of content corresponds to the main points that should be present in a scientific study of this kind - problem statement, review of previous research, thesis, information provision, analysis, confirmation/rejection of the thesis, summary, conclusion.

3. Publications and participation in scientific forums

PhD student Krasimira Hristova has submitted 3 publications, including one article in the journal "Economics and Computer Science" - in English and 2 papers published in the proceedings of international scientific and practical conferences. She has also participated in one national research project. The problems addressed by the publications of PhD student Hristova are in the field of the dissertation, they are developed at the necessary level from the content, style and language points of view. Through them, the research work of PhD student Hristova gains the appropriate publicity and creates an opportunity for interested subjects to get acquainted with her scientific interests and achievements to date.

4. Assessment of the structure and content of the dissertation

The structure of the dissertation is classical. Proportionate, but also depending on the relevance to achieve the objectives of the dissertation research, attention has been given to the individual chapters and chapter points.

The content/statement of the dissertation is appropriate to the topic. It sets out, in the logical sequence for a dissertation study, the theoretical aspects of prices and pricing in construction, including the factors influencing them, with the necessary degree of thoroughness and on the basis of a review of a considerable number of sources, while also incorporating certain theoretical propositions concerning the construction market with sufficient skill.

By the presentation in chapter one, the author shows that she is familiar with the theoretical and analytical publications published so far related to the topic of the dissertation, has her own opinion on the different aspects of the issues and is able to lead a scientific discussion, striving to adhere to a line of non-conflict and, if possible, unification of opinions of different positions and formulations. As a result, she reaches her own formulations and expresses her personal opinion.

Chapter Two is analytical in nature. A considerable amount of statistical information has been collected from NSI, Eurostat, the Chamber of Builders in Bulgaria, some Internet statistics, etc. The data set is supplemented by the author's own calculations. Based on this, a picture of the Bulgarian construction market is presented in comparative aspect with the construction sector in a number of EU countries (number of construction enterprises, construction output, value added by factor costs, etc.) and tracking of important

indicators such as number of employees in the construction sector, average annual wage, number of enterprises in design, revenues from construction works, revenues from new construction and from improvements, output in the construction sector, etc. The analysis in Chapter 2 is properly structured/divided according to the specificity and nature of the activities in this sector into two parts - analysis of prices and pricing at the stage of study and design and at the stage of creation and realization of construction output. The analytical nature of the second chapter is also supported by the analysis of the normative basis of prices and pricing in construction, where the PhD student focuses on the comparison of the methods for determining the cost of design services specified in the current methodology and from the analysis of prices and pricing in several leading countries in economic terms - Germany, Italy, Canada, USA. The conclusions of the analysis point to the thesis of the dissertation. The third chapter is oriented towards the formulation of proposals for improving prices and pricing in construction. The proposals are derived on the basis of a study (through a survey) of prices, pricing and pricing strategies of construction companies. The survey is implemented in electronic form. 101 enterprises responded, which shows the interest of the construction business in the topic of the dissertation and the correct orientation of the PhD student to important unsolved problems of business practice. The advanced pricing model for construction output deserves special attention in chapter three. The model proposed by doctoral student Hristova is the result of further development and enrichment of previous models proposed by other authors. This is a positive point, showing the doctoral student's ability to build on and develop the achievements of other authors, whose ideas and achievements she knows and shares.

5. Identification and evaluation of scientific and applied contributions

Doctoral student Krasimira Hristova has fulfilled the tasks she has set herself in terms of her dissertation research and has obtained certain scientific and scientific-applied results of a contributory nature. Their distinction is in a sense conditional, one part can be defined as scientific, and another - as scientific and applied. To the former I refer the refinement and clarification of the specificity of certain concepts and the proposed classification of factors. The others have a scientifically applied character. The proposed improved pricing model based on the market approach is also a contributory point. Overall, I accept the doctoral student's formulation of the contributions.

6. Critical comments and recommendations

Certain remarks can be made regarding the thesis, which do not diminish its positive characteristics:

The definition of the object and subject of the dissertation could be more precise in the context of their necessary relation to each other.

Some categories and concepts are not clearly distinguished - value, worth, utility, added value, use value.

There are inaccuracies which I take to be linguistic/stylistic - e.g. 'the market as a reproductive process', 'the market is the place' (pp.15,16) etc.

I would recommend the PhD student to continue and deepen his/her research in the area of the dissertation problem and to increase his/her scientific publications, including in foreign publications.

7. Questions to the dissertant

Would she systematize the arguments that support her research thesis?

What is the PhD student's opinion on the possibilities and approaches for valuing 'value'?

How are the principles of green/smart/smart building reflected in value and pricing in construction?

8. Conclusion

The dissertation presented by the PhD student is a scientific work containing a study of a topical and almost undeveloped in the Bulgarian specialized literature problem and its own research. There are scientific and applied results and contributions. The research results have been promoted in appropriate publications.

The minimum national requirements for the award of the PhD degree and the requirements of the Regulations for the Development of the Academic Staff of the Varna University of Economics have been met. This gives me the reason to vote positively with full conviction to award PhD to PhD student Krasimira Hristova-Bocheva in the field of higher education 3. social, economic and legal sciences, professional field 3.8. Economics, doctoral programme "Economics and Management (Construction and Real Estate).

29.11.2022 г.

Signature:

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679

/Prof. Dr.Iordanka Iovkova/



ИКОНОМИЧЕСКИ УНИВЕРСИТЕТ - ВАРНА

СЕРТИФИЦИРАНА СИСТЕМА ЗА УПРАВЛЕНИЕ НА КАЧЕСТВОТО ISO 9001:2015

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ИКОНОМИЧЕСКИ УНИВЕРСИТЕТ ВАРНА

OPINION

Вх. № ПА 20-1482 / 12.12.2022 concerning the award of a PhD degree
as per a procedure announced by the University of Economics - Varna

1. General information

Opinion prepared by: Assoc. Prof. Todor Stoyanov Raychev, PhD, lecturer at the University of Economics – Varna, department of Business, Investments, Real Estate (BIRE), scientific specialty 05.02.18. Economics and Management.

Grounds for preparing the opinion: Order № ПД 06-188/03.11.2022 by Prof. Nadya Kostova, PhD, Deputy Rector for Research and Staff Development at the University of Economics – Varna concerning the appointment of a Scientific Jury and a decision taken at the first session of the Scientific Jury dated 04.11.2022.

Author of the dissertation: Krasimira Hristova Hristova-Bocheva, PhD student in professional area 3.8. Economics, PhD programme „Economics and Management (construction and real estate)“ at the department of Business, Investments, Real Estate of the University of Economics - Varna, pursuant to an Order of the Rector of the University of Economics - Varna № ПД 17-3620/02.10.2013 for part-time doctoral studies with a duration of four years in the period from 01.09.2013 until 01.09.2017. The PhD student has been dismissed with a right of defense pursuant to an order № ПД 17-3021/04.10.2017 of the Rector of the University of Economics – Varna.

Dissertation topic: Market, prices and pricing in construction.

A decision was taken by the Departmental Council of the BIRI department to open a procedure for the defense of the dissertation, according to protocol No. 3/30.09.2022.

Research supervisor: Assoc. Prof. Petkov Monev, PhD

2. General presentation of the dissertation

The dissertation student Krasimira Hristova-Bocheva has submitted a dissertation in the volume of 202 pages, developed in a classic format: 4 pages of introduction, topic development in three chapters - 161 pages in total, 2 pages of conclusion, 21 pages of appendices and 10 pages of used literature. The body of the dissertation includes 24 tables and 22 figures. The list of used literature consists of 126 literary and information sources, respectively 60 in the Cyrillic alphabet, 41 in the Latin alphabet, as well as 25 Internet sites. The work also includes 7 applications that enable the doctoral student to substantiate her conclusions and recommendations.

The topic of the dissertation is dedicated to the current issue of price management and construction pricing in Bulgaria due to the great importance of this sector in the economy and the increased interest of all contracting authorities (investors) in the price and pricing of construction products.

The body of the dissertation contains an in-depth study of literature and information sources with relevant analyses, official statistical data, appropriate research methods such as the method of induction and deduction, the method of analysis and synthesis, the system approach, the method of comparison, the representative method and the method of the survey.

3. Publications and participation in scientific forums

The dissertation student Krasimira Hristova-Bocheva has published 3 scientific works, including 1 article and 2 papers at scientific forums, thereby meeting the quantitative requirements under Art. 35, para. 1, items 1-4 of the Regulations for the development of the academic staff at the University of Economics – Varna.

4. Opinion on the structure and contents of the dissertation

The structure of the dissertation is logically laid out in a classic structure of three chapters with paragraphs, well-balanced separate parts and corresponds to the chosen topic. The dissertation student has successfully managed to develop the set scientific tasks in the work. The dissertation is distinguished by a clearly expressed author's position, with original and creative assertions and conclusions. The dissertation student has precisely formulated the object, subject, goal and tasks of the research. The thesis that the dissertation student has convincingly defended in the dissertation is presented, namely that there is a problem with the transition of construction companies from cost to market and value-based pricing, therefore it outlines the guidelines for improving and implementing a competitive pricing strategy. The research methods are indicated and correctly applied in the process of developing the dissertation work. The conclusion of the dissertation summarizes the results of the research and the main scientific and scientific-applied contributions are indicated.

The content of the chapters of the dissertation work follows a classic model, which includes theoretical, analytical and practical-applied chapters, which are logically consistent and well balanced in relation to the volume of the work.

In chapter one, based on the general-to-specific approach, the main concepts in the field of prices and pricing in construction, the modern concepts of prices and pricing in construction and the factors that influence them are successively explored.

Chapter two presents a sectoral analysis of the Bulgarian construction market. The doctoral student pays special attention to the analysis of the pricing of the two main stages of formation of the final price of the construction product - the stage of research and design and the stage of creation of the construction product. The study of the use of software products in the pricing of construction products is noteworthy.

In the third chapter, based on a toolkit, a study conducted by the candidate is presented regarding the state of prices and pricing in construction enterprises, and certain problems are identified. To overcome the said problems, a model of construction product pricing is proposed, as well as an improvement of pricing in construction enterprises based on a pricing strategy in a dynamic economic environment.

The abstract of the dissertation has a volume of 43 pages and reflects correctly and fully the individual parts of the scientific research, the summarized results - conclusions and recommendations of the dissertation student, and outlines correctly articulated contributions and publications related to the dissertation.

We believe that the **lexical and stylistic characteristics** of the dissertation work, the abstract and the attached publications are distinguished by a contemporary academic style, they are written in understandable scientific language, with accurate and appropriate use of specific terms in the field of prices and pricing in construction, correct citation of literary and information sources.

5. Identification and assessment of the scientific and scientific-applied contributions in the dissertation

We accept the scientific and scientific-applied contributions (abstract, pages 40 and 41) of a theoretical nature (enrichment of theoretical statements about prices and pricing in construction); of a methodological nature (advanced model for construction product pricing);

of a practical-applied nature (opportunities suitable for management practice to improve the price strategy of construction enterprises).

6. Detected or undetected plagiarism in the dissertation and abstract

We have not established plagiarism in the dissertation and the abstract.

7. Critical notes and recommendations

During the development of the dissertation, we have promptly provided the dissertation student Krasimira Hristova-Bocheva with a sufficient number of appropriate critical comments and recommendations to achieve a high quality of the research, which is why we have no significant comments on the work.

We recommend that the dissertation student continue her research on the issues related to improving the processes of price management and pricing in construction.

8. Questions to the dissertation student

The interesting issues raised in the dissertation give us the opportunity to pose the following questions to the dissertation student: (1) How does the transfer to the digitalization of construction enterprises (the application of software products, dissertation pp. 115, 123) support the processes of pricing management in construction enterprises? (2) What steps should construction companies take to move to a market-based pricing strategy in order to form a price that matches the customer's value in relation to the real economic value for the respective contracting authority?

9. Conclusion

The dissertation has a high value and an original scientific-applied nature. It meets the requirements for independent research with theoretical and applied contributions. It contains important research results and concrete ideas of a theoretical and practical nature. Taking into account the positive qualities of the dissertation work, we consider that it corresponds to the requirements for awarding the PhD degree.

On the basis of the above, we give a positive assessment to the dissertation submitted for defense on the topic "Market, prices and pricing in construction" and suggest to the esteemed members of the scientific jury **to vote "FOR" awarding the PhD degree** in professional area 3.8. Economics, doctoral program "Economics and Management (Construction and Real Estate)" to the dissertation student **Krasimira Hristova-Bocheva**.

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679

Dec.12, 2022
Varna

Member of the Scientific Jury:
(Assoc. Prof. Todor Stoyanov Raychev, PhD)

OPINION

by Assoc. Prof. Dr. Dragomir Zelchev Stefanov

regarding a dissertation for the acquisition of an educational and scientific degree "doctor" in PF 3.8 "Economics", doctoral program "Economics and Management (Construction and Real Estate)" with author **Krasimira Hristova-Bocheva**

1. General information.

The opinion was prepared by: Assoc. Prof. Dr. Dragomir Zelchev Stefanov, full-time lecturer in the Real Estate Department at the Business Faculty of UNWE-Sofia, scientific specialty "Economics and Management".

Grounds for giving the opinion: Order of the Vice-Rector for Research and Professional Development of UE-Varna No. RD-06-188/03.11.2022, Varna for the appointment of the scientific jury and Decision of the scientific jury dated 04.11.2022. for the appointment of reviewers and prepare opinions.

Author of the dissertation: Krasimira Hristova Hristova-Bocheva, PhD student in PF 3.8 Economics, doctoral program "Economics and Management (Construction and Real Estate)" at the Department of "Business, Investments and Real Estate", awarded with the right of defense by Order no. RD 17-3021/4.10.2017 of the Rector of UE-Varna. Mrs. Hristova-Bocheva has successively completed Bachelor's degree (2011) and Master's degree (2012) in "Economics of Construction" at the same department. Her entire work experience since 2011 is directly related to the topic of the dissertation work.

Dissertation topic: Market, prices and pricing in construction.

2. General presentation of the dissertation.

The dissertation has a total volume of 202 standard pages, incl. 11 pages of references (126 sources) and 21 pages of appendices. The paper has a classic structure – an introduction, three chapters, each with three paragraphs and a conclusion.

In the introduction, the author has correctly justified the actuality of the topic and connects it with the importance of construction in the economy, as well as the increased interest of all contractors in the price and pricing of construction products. The object and subject of the study, the purpose and the research tasks of the work are consistently correctly formulated. The thesis that the author maintains in the dissertation is that despite the tendency of more and more companies in the Construction sector to move from cost to market and value-based pricing, they have difficulties in implementing this approach and concept. Emphasis in the research is placed on improving the management of pricing in construction enterprises, through the relevant tools - concept of the value of construction production, advanced pricing model, use of software products, competitive pricing strategy.

The first chapter is devoted to the theoretical foundations of the market, prices and pricing in construction. The essence is explored and some basic concepts in the field of pricing are clarified. Attention is also paid to the determination of the price from the point of view of

marketing, which defines it as a *value* for the consumer, provided to him by the construction company.

In a separate paragraph, the nature and specificity of prices and pricing in construction are clarified and specified. A modern concept of prices in construction, based on the value of the construction output, has been adopted. The main differences between cost and market approaches to pricing are discussed. The main advantages and disadvantages of both approaches are indicated. Finally, an advanced classification of the factors influencing prices in construction is proposed.

The second chapter, entitled Research on the market, prices and pricing in construction at the macro and microeconomic level, begins with a study and analysis of the Bulgarian construction market in the context of the functioning of the European one. Numerous indicators of the sector have been analyzed, and the results are appropriately presented in accompanying tables and figures. The second and third paragraphs are respectively devoted to the normative base of prices and pricing in construction in the research and design stage in Bulgaria and that of creating and implementing construction products in the context of the use of software products.

At the beginning of the **third chapter**, a methodological toolkit is presented and, based on it, a practical study of prices, pricing and pricing strategy in construction enterprises in Bulgaria was conducted. 101 enterprises from all administrative-territorial units in the country, carrying out different types of construction as their main activity, were surveyed. The results are presented appropriately and the conclusions drawn are correct.

In the following paragraph, the author has proposed an advanced model of construction product pricing. Emphasis in it is the reflection of the value, respectively, in the design by the designer and in the construction by the builder. The author argues that value is not an abstract concept and that it could be managed, just like construction costs. For the purposes of pricing, it is necessary to measure, analyze, evaluate the value of the construction product and to look for ways to create additional value.

The last part of the chapter presents opportunities for improving pricing in construction companies based on a pricing strategy in a dynamic economic environment. Conclusions and recommendations are drawn, which will be useful for improving the process of construction products pricing.

3. Publications and participation in scientific forums.

PhD student Bocheva presented a list of three publications on the topic of her dissertation – two reports in the international scientific-practical conference "Construction entrepreneurship and real estate" and one article (in English) in the specialized scientific journal Knowledge and Business. The submitted publications meet the requirements of the law and the regulations for its application.

4. Assessment of the structure and content of the dissertation.

The dissertation submitted for review meets the requirements under Art. 34 of the Regulations for the Development of the Academic Staff at UE-Varna. The work shows the author's good knowledge of authoritative theoretical studies on the subject, as well as his ability to carry out such studies himself. The structure of the dissertation is classical, each chapter and

paragraph ends with a short summary and conclusions. The work follows a strict logical sequence and provides a step-by-step disclosure of basic theoretical propositions, problems and potential solutions (recommendations) for improving pricing in construction enterprises. The style of expression is clear and understandable; the formatting is in accordance with the best practices in the field. Literary sources are correctly cited as footnotes in the main text of the dissertation and listed at the end.

The abstract meets all generally accepted requirements for volume, structure and content. In it, the PhD student reflects correctly, both in terms of structure and content, what is presented in the dissertation work. In a total volume of 42 pages, a general description of the work, a reference to the scientific contributions and a list of the author's publications on the subject are presented.

5. Identification and assessment of scientific and scientific-applied contributions in the dissertation work.

In the abstract, PhD student Hristova-Bocheva formulated four contributing points, namely:

1. The nature and specificity of prices and pricing in construction has been clarified and these concepts have been clarified. The concept of prices in construction was developed, based on the value of the construction output.

2. The specific features and characteristics of prices and pricing in construction are outlined and, on this basis, an advanced classification of the factors affecting them is proposed.

3. Based on a study of the construction market in Bulgaria by using the survey method, the state of this market, prices and pricing in them were analyzed, incl. and the use of software products in this field.

4. An advanced pricing model was developed, based on the market approach to pricing in construction enterprises and the value of construction output, and on this basis, guidelines were formulated for improving the pricing strategy in construction enterprises.

I largely accept the contributory nature of the formulated contributions. I would define the first two of them as scientific, and the last ones as those with a scientific-applied element.

6. Confirmed or unconfirmed plagiarism in the dissertation and the abstract.

When familiarizing myself with the dissertation work and the author's abstract of it, I **did not find any plagiarism** in the sense of §1, item 7 of the Additional Regulations of LDASRB.

7. Critical notes and recommendations.

Along with the many positive aspects of the dissertation, some critical remarks can be made. Thus, for example, the place of methodological notes is traditionally in the second chapter of the dissertation, and practical studies based on them are usually in the third chapter. The author has not chosen this approach here. In addition, it is not clear whether the advanced model of construction product pricing proposed in paragraph 2 of the third chapter has been tested in practice and whether it gives the expected positive results that are assumed by the author.

The made notes and recommendations in no way detract from the value of the dissertation and do not change my overall positive opinion of it.

8. Questions for the PhD student.

I would like to address the following question to the PhD student: In the study of the Bulgarian construction market, enterprises engaged in building construction were considered separately from those engaged in residential and non-residential construction. What is the reason and what are the arguments for such a division?

9. Conclusion:

Taking into account the above mention and the achieved results, I give a positive assessment of the presented dissertation work. It fully meets the requirements of the LDASRB and the Regulations for its implementation, as well as the Regulations for the development of the academic staff at UE-Varna. Based on this, I strongly recommend the respected scientific jury **to award the educational and scientific degree "doctor"** in PF 3.8. Economics, doctoral program "Economics and Management (Construction and Real Estate) of Krasimira Hristova-Bocheva.

Sofia, 12.12.2022

Заличена информация съгласно
ЗЗЛД и регламент (ЕС) 2016/ 679

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(Assoc. Prof. Dr. Dragomir Stefanov)