



## REVIEW

By Prof. Neno Pavlov, Doctor of Economics

**With reference to:** *dissertation thesis for awarding the educational and scientific degree of 'Doctor' at the Economic Research Institute of the Bulgarian Academy of Sciences (BAS) in professional field 3.8. 'Economics', scientific specialty 'Economics and Management'*

**Candidate for awarding the educational and scientific degree of 'Doctor' –**  
*Svetlana Grigorova Dyankova, doctoral student in part-time PhD study,*  
*with scientific supervisor Assoc. Prof. PhD Veneta Hristova Mateeva*

**Basis for presentation of the review:** *Article 9 of the Development of Academic Staff in the Republic of Bulgaria Act (DASRBA), Article 30, Paragraph 3, Article 31 of Implementing Regulations of the Development of Academic Staff in the Republic of Bulgaria Act (IRDASRBA) and Order No. 523/15.10.2021 of the Director of the Economic Research Institute at BAS.*

**Dissertation topic:** *'Financial and economic evaluation of investments on the results of enterprises (on the example of the Working Conditions Fund).'*

**Position of the Reviewer:** *member of the Scientific Jury in the competition for awarding the educational and scientific degree of 'Doctor', based on Order No. 523/15.10.2021 and Decision of the Scientific Jury from the constituent meeting – Minutes No. 16/20.10.2021*

### 1. Brief information of the doctoral student

Doctoral student *Svetlana Grigorova Dyankova* was born on February 4, 1960. She acquired a Master's Degree in 'Electrical Machines and Apparatuses' at the Technical University of Gabrovo (1978-1982) and a Master's Degree in 'Business Administration' at St. Cyril and St. Methodius University of Veliko Tarnovo (2013-2015), as well as continuing education in Financial Management at D. A. Tsenov Academy of Economics - Svishtov (1997-1998).

The professional career of doctoral student Dyankova is associated with taking the position of 'Applied Programmer' in the Electronic Computing Center of Gabrovo (1982-1991), Chief Expert in the Ministry of Education and Science (1993-1995), Member of Parliament in the 37<sup>th</sup> and 38<sup>th</sup> National Assemblies (1995-2001), Head of Internal Communications at Doveria Pension Insurance Company (2009-2013), Deputy Minister in the Ministry of Labour and Social Policy (2009; 2013-2014), Chief Expert in committees of the National Assembly (2001-2008; (2015-2021), etc.

She is fluent in written and spoken English, German and Russian.

Within the scope of the individual curriculum for part-time training under doctoral program 'Economics and Management', the doctoral student has fulfilled the envisaged academic obligations and has been written off with the right to defense. I have not identified formal and administrative omissions or violations of the announced procedure.

## **2. General characteristics of the dissertation thesis**

### **2.1. Evaluation of the volume structure of the research**

The reviewed doctoral thesis is structured in three chapters, introduction, conclusion, list of used literature and 17 appendices. In the **introduction**, the relevance and significance of the defined topic, object, subject, hypothesis, goal, tasks, methods and restrictive conditions of the research are substantiated. In the **three chapters**, the evolution of the regulatory framework and the strategic political documents, the scientific-theoretical, methodological and applied problems of the financial and economic evaluation of the project investment from the Working Conditions Fund in the enterprises of the Republic of Bulgaria are analyzed in a logical sequence.

The **conclusion** summarizes the author's vision of the future development of the project financing, supported by specific recommendations and justifications. The **structure** thus accepted provides the necessary coherence, scope, depth and unity of the relevant parts in the course of deriving trends, the substantiation of one or another concept, the author's thesis, judgments and recommendations for change.

The dissertation is developed in a volume of 243 pages of computer typed text, divided into: Introduction – 8 pages, Three Chapters – 120 pages, including 9 Tables and 12 Figures, Conclusion – 9 pages, List of Used Literature– 9 pages, containing totally 112 information sources (in Cyrillic and Latin), normative and methodological instructions, 6 websites, Appendices related to conducted research – 103 pages.

The selection of literate and information sources and the work with them confirm the good awareness of the doctoral student about the problems of the system of project investment in working conditions, her ability to systematize, analyze and critically interpret the existing information, theoretical concepts and theses, as well as to present her opinion on each of them.

### **2.2. Evaluation of the relevance and significance of the topic**

The leading arguments that prove in an indisputable way the relevance of the topic are related mainly to: *first*, the fact that investments in healthy and low-risk working conditions are an integral part and a priority of the policy on: improving the well-being (so-called staff experiences) at work; prolonging the working life and sustainable development of the social security systems in an environment of demographic aging; prevention against the emergence of new occupational risks in the workplace, etc.; *second*, the implementation of investment procedures is directly related to the transfer of financial resources with a certain return

achieved by improving the economic performance of enterprises (such as quality and productivity, increasing competitiveness, increasing added value, reducing the level of accidents at work, increasing the employer reputation of companies in the labor market), etc. These are confirmed by the analysis of the information on the annually spent investment resource of the Working Conditions Fund (WCF), Operational Program Human Resources Development (OP HRD), Accident at Work and Occupational Disease Fund at the Social Security Fund and the employers' own funds; *third*, the diverse process of preventive, targeted investment against occupational risks in the working environment largely generates macroeconomic stability, innovation, new technological solutions and economic growth

Therefore, the problem is interdisciplinary: it is also financial-economic, managerial, informational, legal, technical-technological and health, but above all it is *a problem of the systematic and consistent, complementary interaction between the measures of the active policies for ensuring a decent, safe and efficient work in modern enterprises.*

The analysis of the facts gives grounds to generalize that the developed doctoral topic, in the context of the adopted author's conceptual scheme, makes the presented doctoral thesis a *relevant, socially significant and necessary research*, with specific scientific-theoretical and scientific-applied results. They are confirmed by the application of specific methodological tools for proving the *doctoral hypothesis*. The doctoral student impresses with her adequate level of specialized knowledge on the issues, resulting from many years of observations and experience. This helps her both in the choice of research methodology and creative-pragmatic approach in the implementation of the goal and the main tasks of the research.

In this case, the leading emphasis is the assessment of the impact of the scheme of *public investment from the Working Conditions Fund as a tool both for improving the safety and health at work at a micro level and for increasing the socio-economic results of enterprises in Bulgaria*. The time framework of the research of investments from the Working Conditions Fund (WCF) in enterprises is the period 2008-2018, including the regulatory changes at national and European level.

### **3. Evaluation of the obtained scientific and scientific-applied results**

The dissertation project includes a variety of analyzes and studies, structured in three parts, including the following several main conclusions:

*First*, focusing the doctoral thesis (*Chapter One*) on the scientific and theoretical foundations and the overview of the development of regulations in the field of safety and health at work, in terms of their essential, conceptual features, characteristics, typology and consequences.

The doctoral student pays special attention to the evolution in the specifics of the regulations through the most important, unique, comprehensive and significant, global instrument - the Conventions of the International Labor Organization (ILO).

Allegations of the impact of the objectives, the coordinating role and the evolution of the normative regulation at European level (more than 30 directives - framework and special,

strategies, programs) within the policies for better management of occupational risks, through the reform and harmonization of the national legislations in the Community, through the more efficient use of public finance and the formation of an overall culture and prevention policies in the Member States, are a contribution.

The focus of the doctoral research is the analysis in an European context of the scope of directives regarding the requirements for general and specific working conditions, the possible *economic incentives* to motivate companies to invest funds for prevention directly in the working environment, supplemented with information on the Good European Practices /page 30 et seq./, based on the many years of studies of the European Agency for Safety and Health at Work. It would be interesting to consider more broadly the effect of the incentives, instead of linking them mainly to the ‘behavior of employees and the level of accidents at work in the organization’, *as well as the priority forms of economic incentives in the field of Occupational Safety and Health (OSH)*.

The genesis and evolution of the essence, structure, scope and peculiarities of the policies and institutional decisions on safety and working conditions in Bulgaria (including under the pressure of the international legal norms of the ILO, the Council of Europe and the EU), with their logical subprocesses, respectively: a/ *the system for managing compliance* of the financially secured measures with the established internal legal order, the European and global international standards; b/ *the systematic control (through the bodies at different levels) on the state of the working environment*, including risk management, rate of harmonization, impact on competitiveness, welfare at work, efficiency and effectiveness of investments in Occupational Safety and Health (OSH), have been analyzed.

In the context of complexity, interdisciplinary nature and multifaceted field of OSH, the author applies an *integrated approach* in studying the problems of occupational risk prevention, modernization, management and control of the safety of the working environment, such as legal rights, measures, balanced obligations and responsibilities of the participants in the labor processes: the State, employers, trade unions, staff, including self-employed persons. In support of this, a successful attempt has been made to systematically present the built infrastructure of units at different levels of economic incentives (including through the scheme of the Working Conditions Fund), the management and control of OSH by classifying the group objectives, violations, weaknesses, responsibilities and requirements to the participants, turning them into a preventive tool for minimizing the production risk and traumatism in enterprises.

I positively assess the defended thesis, namely that the leading emphasis in active policies in the future should be the culture of risk prevention in the workplace (including medical supervision of employees). The attempt to assess the **correspondence** between the actual national/ corporate policy and the EU legislation in the field of OSH, subject to transposition, in order to limit the risk factors of the working environment, is a contribution.

*Second*, the detailed analysis of the methodological decisions for financial and economic evaluation of investments in the conditions and safety of work, made through the research prism of the work of leading researchers, the experience of international and European organizations, the good practices in some EU Member States (*Chapter Two*). Adhering to the

goal and the working hypothesis, the doctoral student has presented the application of the macro and micro approach for assessing the severity of occupational risks, the effectiveness of direct costs in the working environment and the economic incentives for preventive action. The European experience has been presented, following the example of Finland in applying the DAYLI model (for assessing the severity of work-related risks, based on the years of life, taking into account disability at the macro and meso level), as well as the versions of the TYTA model (for assessing the economic effects of improving the working environment through software programs at the micro level). According to the author, the lack of experience, administrative capacity and analytical information make their application in the country largely impossible, including within the framework of operation of the applied model - Working Conditions Fund.

The detailed analysis of the proposed methodological tools for financial and economic assessment of the effects of public investments of the target national Working Conditions Fund in the working environment of organizations, based on specific indicators and indicators for measurement, is a contribution. Using scientific evidence, the doctoral student has deeply and comprehensively substantiated their specificity, factor and causal relationship, the need for systematic collection, processing and exchange of reliable and objective information for the needs of the executive, funding and control bodies in relation to the working conditions (including the implementation of projects) in the dynamically changing economic, technological and digital environment.

*Third*, putting the weight on the effect of public investment in safety and health at work at the company level, the doctoral student has analyzed the results of testing the proposed methodology in terms of public subsidies paid to them from the Working Conditions Fund in the period 2008-2018 (*Chapter Three*). For this purpose, a database has been used both for the investments from the Working Conditions Fund and for the expenses of the National Social Security Institute (NSSI) for the companies (112) with accidents at work before or after used investment for each project from the fund<sup>1</sup>.

The contribution of the detailed, multicriteria, empirical analysis and justification (at macro and micro level) of the effect of public investments (in terms of total amount, structure, number of employees included, connection with the types of environmental risk factors) during the eleven-year study period, within the projects administered by the companies, has a strong methodological character. I positively assess the derived meaningful causal relations and findings, logical conclusions and generalizations about the policies of the Working Conditions Fund (WCF), the attitudes and behavior of the beneficiary companies. The empirically proven impact of the indicators (number of accidents at work, number and financial dimensions of the lost working days) on the efficiency of investments from the Fund at the organization level deserves attention. The proposals for improvement of the methodology for preliminary financial evaluation of each individual project, as well as the methodology for financial evaluation of the weight of the individual risk factors, within the adopted working methodology for evaluation of the projects of the companies participating for limited (up to 30%) financing from the Fund, is a contribution.

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My final conclusion is that the doctoral student has been able to prove the fulfillment of the research goal and tasks, as well as the realism of the confirmed doctoral hypothesis in the research. Moreover, the modern Bulgarian economic literature and practice need more and more knowledge and research results in the field of these so specialized issues, having interdisciplinary nature and potential for making innovative management decisions at different levels of government in the country. The achieved scientific and scientific-applied results have the nature of expanding and enriching the existing knowledge in the scientific specialty.

#### **4. Evaluation of the scientific and scientific-applied contributions**

The research achievements of the doctoral student substantiate the theoretical-conceptual and methodological soundness of the presented doctoral thesis. They offer applicable tools for financial evaluation of public investments in safe working conditions, in order to achieve higher organizational and economic effectiveness/ efficiency in the beneficiary companies. I consider the Report on contributions in the abstract to be realistic and objectively reflecting the research results.

#### **5. Evaluation of the implementation of the set tasks and requirements of law**

My opinion is that the main research goal has been achieved and the tasks fulfilled by: the use of sufficient volume of systematically presented information, adequate theoretical knowledge in the scientific specialty, appropriate academic training and ability to conduct independent research, which fulfills the main requirements of Article 49 of the Development of Academic Staff in the Republic of Bulgaria Act for acquiring the educational and scientific degree of 'Doctor'.

#### **6. Evaluation of the publications of the doctoral student**

The 3 *independent scientific publications* (report and articles) submitted in the defense procedure are an integral part of the candidate's research work in the presented doctoral thesis. I believe that in terms of volume and quality, they present publicly the achievements of a doctoral student to the academic community to a sufficient degree.

#### **7. Evaluation of the abstract**

The abstract is in a volume of 42 pages. He objectively reproduces the content structure, the main conclusions and the research results in the dissertation thesis.

## **Critical remarks and recommendations**

It is quite natural to find some inaccuracies in the doctoral dissertation, both in substance and in form. My opinion during the internal discussion of the dissertation contains critical remarks related to the formulation of the goal and tasks, the working hypothesis, the contributions and working concepts, the citations and layout of the List of Used Literature. The recommendations made have been taken into consideration by the doctoral student in good faith, so I have no new remarks.

In order to provoke creative thinking, I have the following question: *How does the doctoral student see the possibility of prevention becoming a basic concept and fundamental goal of the health and safety at work in Bulgarian enterprises?*

## **Conclusion**

**Based on the relevance and significance of the research, the targeted scientific and applied results, specific conclusions about management practice and solving a real problem of indisputable importance, I give a positive assessment of the dissertation thesis and propose the honorable members of the Scientific Jury, on the grounds of Chapter Two, Article 6 of the Development of Academic Staff in the Republic of Bulgaria Act, to support the award of the educational and scientific degree of ‘Doctor’ to doctoral student *Svetlana Grigorova Dyankova* in the professional field ‘Economics’, scientific specialty ‘Economics and Management’, scientific field ‘Social, Economic and Legal Sciences’.**

Sofia, 11.11.2021

Reviewer: \_\_\_\_\_  
/Prof. D. Sc. (Econ.) Neno Pavlov/