

Abstract

The research activity and the teaching profession complement each other, managing to offer the most fruitful results that are used in the teaching hours, but also in advancing the targeted research field. The research activity, par excellence, develops and substantiates a series of skills and collaborations that contribute to the improvement of teaching materials and the development of national and international research topics.

The habilitation thesis is a synthesis of the author's concerns and scientific activity that were carried out in the period after the doctoral thesis, in 2013. The doctoral thesis entitled "Contributions on risk management in sustainable enterprise" was conducted under the guidance of prof. univ. dr. eng. Monica IZVERCIAN. The habilitation thesis is mainly focused on the achievements that attest to the author's ability to conduct scientific research activities in the field of Engineering and Production Management, with applications in Sustainable Development and Risk Management.

This habilitation thesis reveals the didactic and research capacities and performances of the candidate *dr.eng. Larisa IVAȘCU*, who currently holds the position of associate professor in the state of functions of the Management Department of the Politehnica University of Timișoara, undertaken after the public defense of her doctoral thesis and until now.

During the 7 years of continuous **teaching activity** within the same department, the candidate developed and consolidated his teaching skills and performances, carrying out all types of activities: course, seminar, laboratory, project, guidance in the elaboration of diploma and dissertation works, et al., climbing the hierarchical ladder of teaching positions. He contributed to the development of didactic works, university textbooks and guides for applied works, appreciated in the targeted field.

From the perspective of **administrative and managerial activity**, the candidate is involved in various activities carried out at the level of the Faculty of Management in Production and Transport, contributing to the endowment and management of the *EcosEc laboratory*. This laboratory is the result of research conducted in the area of sustainability and risk management, being used in disciplines from master's and bachelor's programs.

The presentation of the abilities and performances obtained in the **research activity** of the candidate occupies most of the present habilitation thesis. In this sense, in the first section the author presents the topics approached and the results obtained after obtaining the doctoral degree, with reference to the list of bibliographical references. These years of research have contributed to the publication of 93 scientific papers published in prestigious journals and to international events representative for the field of Engineering and Production Management. During this period she was the guest editor of some important publications, thus proving the international appreciation of the obtained results. The entire research activity totals over 173 scientific articles.

The first part of the habilitation thesis presents the main results obtained by the author in the research activity. This part is structured in five important directions:

1. Education for sustainable development
2. Approaches to sustainable development in competitive organizations
3. Models for sustainable development and information technology
4. Risk management
5. Organizational strategies in the context of the circular economy

The first direction of research presents education for sustainable development because the development and involvement of organizations in the implementation of this concept begins with the education of individuals. From this perspective, the role of engineering education for sustainable development is presented. Following the involvement of students in education for sustainability, it is necessary to approach education in the context of open collaboration between universities and private partnerships.

The second direction presented and researched by the author is that of different approaches to sustainability in competitive organizations. The fundamentals of concept development, enterprise management, organizational requirements for sustainable development and the relationship between stakeholders and organizational involvement are presented.

The third direction presents a series of models developed based on organizational characteristics and implications. Implementing models within organizations also involves measuring efficiency, so this direction also involves proposing an approach to measuring the implications of sustainability in industry in the context of Industry 4.0.

The fourth direction targeted by the author's concerns is that of risk management. The organizational approach to sustainable development involves risk assessment and appropriate treatment. The concerns focused on addressing organizational risk, IT implications, opportunity risk, but also the relationships between occupational risks and education, innovation and benefits. The risks in different fields of activity are investigated, and after analyzing the results, the author proposes solutions and models for improving the analyzed situation.

The fifth direction targeted by the research activity is the development of organizational strategies in the context of streamlining organizational activities. The author's concerns in this direction are aimed at reducing the impact on the environment of some important areas. Waste management, climate change, greenhouse gas emissions, improved processes for the production of sustainable items and the assessment of economic opportunities and challenges are among the research undertaken. Following the management of mobility projects, the author has undertaken a number of collaborations with colleagues from China, Pakistan, Hong Kong, Singapore and Thailand. The evaluation of the principles of the circular economy in Romania and China, but also of the implications of Chinese stakeholders in sustainable development are the starting pillars of a research network. This research group operates and has generated a number of studies that have been submitted for publication to a number of high-impact journals.

The results of the research and publication activity of the candidate were presented in national and international academic and scientific events, through articles published in journals or in the volumes of conference papers. The candidate has published **over 173 scientific articles** throughout her career (2010-2020). After defending his doctoral thesis, **she published 128 scientific articles (2013 - present)**.

The distribution by categories of the 128 publications has the following form:

- **18 in journals** indexed in the Web of Science database (Clarivate Analytics), of which: 1 with quartile Q1, 8 with quartile Q2 (yellow area), 3 with quartile Q3 (gray area);
- **77 at international conferences** indexed in the Web of Science database (Clarivate Analytics);
- 14 in journals and volumes indexed in other international databases (BDI);
- 19 in unindexed or indexed journals or volumes.

Also, the candidate is the author of a book published at an international publishing house, 5 books published at recognized national publishing houses and 8 teaching materials including in electronic format - course support / guidance.

The second part of the habilitation thesis presents the development perspectives. These perspectives are presented in the three directions: didactic, research and administrative.

The last part of the habilitation thesis is dominated by bibliographic references.