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„ION IONESCU DE LA BRAD” DIN IAȘI  
Iasi University of Life Sciences



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Engineering and Management in Agriculture and Rural Development  
Scientific Field

# HABILITATION THESIS

MANAGEMENT, SUSTAINABILITY AND  
INTERDISCIPLINARITY,  
PILLARS IN AGRIBUSINESS

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## A. ABSTRACT

I believe that an economic entity can achieve success "without compromising the needs of the future" when there is a real emphasis in the organizational culture on the principles of sustainable development, and when the performance pyramid is based on soil waste management and sustainability.

Thus, the habilitation thesis presents the studies and research associated with soil management, waste and business sustainability, considered to be the pillars of an architecture of the future in agribusiness.

The thesis is structured in accordance with applicable law and U.L.S. Iași internal regulations regarding the organization and development of the process of obtaining the habilitation certificate, in the following sections:

A – Summary;

B – Scientific and professional achievements; career development and development plans;

B1 – Scientific, professional and academic achievements;

B2 – Evolution and development plans of personal professional, scientific and academic career;

B3 – References.

The first section, B1, presents personal, original and documented scientific achievements, analyzed in the context of global scientific achievements in the main stream of publications. The original scientific achievements presented in my thesis, in the form of interdisciplinary research directions, are based on scientific papers published in ISI indexed journals (WOS, Clarivate, 23), as well as in journals included in International DataBases (BDI, 88) or in volumes of various scientific events I participated in (26), as well as results obtained from research conducted through research projects (26, of which 3 I was Project Director). The publications and research projects that I have considered to be the most important, based on the results presented, are listed at the beginning of this section.

The first direction of interdisciplinary research is represented by *Circular economy – management solutions for a sustainable future*, which analyzes:

- Agricultural waste management as an environmental issue in Romania;
- Solid waste management in Romanian households;



- Studies on the use of senescent viticultural material as dyes in the plastics industry.

I believe that a large amount of agricultural waste is produced every year or every six months in every state and country around the world, so it is essential to handle it, reuse it or make strategic use of it to produce byproducts with added value, so that agriculture becomes sustainable. Agricultural waste and its processing is a global problem for both agriculture and the environment, as the vast majority of the wastes are currently burned or buried in the ground, causing air and water pollution, favoring global warming. Their capitalization has the potential to influence the bioeconomy by producing value-added products, including biofertilizers, bio-plastics, paper, biofuels, industrial enzymes, organic acids etc.

The second direction of interdisciplinary research is represented by *Contributions on soil management in the context of climate change and environmental factors*, which focuses on:

- Good management practices in managing the most important factors to ensure sustainable soil quality;
- Climate change management on soil changes.

Healthy soils provide the largest terrestrial carbon deposit. When managed sustainably, soils can play an important role in mitigating climate change by storing carbon and lowering greenhouse gas emissions into the atmosphere. Conversely, if soils are poorly managed, carbon in the soil can be released into the atmosphere as carbon dioxide and contribute to climate change.

The third direction of interdisciplinary research is represented by *Research on the role of audit and financial communication in substantiating the decision-making process and financial sustainability in agribusiness* which analyzes:

- The role of internal audit in substantiating the decision-making process in agribusiness;
- The role of financial communication in ensuring performance in agribusiness;
- Contributions regarding the assurance of sustainability reports;
- Research on financial sustainability in agribusiness.

Sustainability and corporate social responsibility play a key role in agribusiness research, stimulating the need for accountability of companies looking for ways to measure and manage their interactions in the field. Corporate social responsibility is seen as a smart investment that benefits

both companies. as well as the whole community. Financial performance is a necessity for the survival and growth of any business. That is why companies depend on the social environment to ensure this performance. We believe that innovative managerial decisions must be built on four important pillars: audit, financial communication, performance and sustainability. They all have the same starting point which is accounting information. According to Jensen and Meckling (1976), it has been *established* that managers are responsible for managing the company's business and are directly accountable to shareholders for its condition and performance. For these reasons, managers need quality information to identify the strengths and weaknesses of the business, but also to assess the opportunities and threats that may arise. Therefore, the rationale for financial decisions is an important driving force for the sustainable development of agriculture.

The *Professional Achievements* chapter contains the most important results I have obtained from a professional and academic point of view: the publication of 16 specialized books (8 unique or first author); project manager for three projects obtained through competition, and member for another 26 grants, which led to obtaining 11 awards.

In Section B2 I have included the proposed career development objectives both didactically and scientifically, in line with the strategic research objectives of the Faculty of Agriculture and the U.L.S. Iași, as well as various possibilities for their implementation.

The third section, B3, contains the references structured by chapters, including my own publications.

