

**“Valahia” University of Târgoviște**  
**Doctoral School of Economics and Humanities**  
**DOCTORAL FIELD: MANAGEMENT**

**SUMMARY**  
**ABILITATION THESIS**  
**Contemporary Challenges on the Impact**  
**of Quality Management and Innovation on**  
**Sustainable Development**

**CANDIDATE:**

**Lecturer PhD. Crenguța-Ileana SINISI**

## **(A - I) SUMMARY**

The qualification thesis, *Contemporary Challenges on the Impact of Quality Management and Innovation on Sustainable Development*, aims to highlight the implementation of quality management, methods and techniques of continuous quality improvement in some organizations and the concept of sustainable development (or sustainability), a wide use and nowadays, almost everything is carried out under the logo of sustainable development: the society develops by applying sustainable development; education must become sustainable; industry or agriculture is developing sustainably; research must support sustainable development; water (or other) resources should be used sustainably, etc.

As a principle, sustainable development is necessary to be applied in all fields of activity, in order to meet basic material needs, in order to provide the resources for optimizing the quality of life in terms of health and education. Economic development in particular, like any other type of development, requires measures to streamline human resources in particular, but also other types of resources in general. "One of the major challenges of sustainable development is to find ways to encourage environmentally friendly economic activities and discourage activities that cause environmental damage (air, water and soil pollution, respectively the basement).

The thesis includes a brief presentation of the evolution of the academic, scientific and professional career of the author, the future directions for the development of the academic career in the context significant and topical scientific achievements in the field of Quality Management, Innovation Management, Strategic Management, Ecotechnology, respectively a brief presentation of the author's individual capacity in the didactic, research and academic field.

To highlight them, it was based on the main scientific achievements resulting from the activity carried out after obtaining the title of doctor. Also, as part of the thesis, a career development plan was developed, based on the scientific, didactic and administrative achievements so far.

The first part of the present thesis presents the main original scientific results obtained by the candidate in the scientific research after the defense of the doctoral thesis entitled "Management of anti-pollution systems in the construction of automobiles", in January 2006, period in which it elaborated as sole author and co-authored specialty books published in national publishers, articles in national or international indexed journals Clarivate Web of Science with impact factor and AIS > 0, scientific articles in journals indexed in international and national databases as well as symposia and scientific communications at international and national conferences.

The results of the research that contributed to the elaboration of the present thesis were oriented to three main directions:

- the importance of quality management reflected in certain organizations**
- the impact of quality on the conceptual and operational elements of sustainable development**
- own contributions on the Europe 2020 strategy, the strategy UE for sustainable and inclusive growth**
- own contributions on sustainable digital innovation of SMEs from the developing countries in the Context of the digital economy and frugal environment**

In support of the above, we made a scientific approach with an applicative character, underlining the complexity of the current economic-social processes that determine the increase of the importance and the role of the quality management in the world, until the efficiency of the use of the quality management system by which it is oriented and is oriented controls an organization in terms of quality as well as in the report "Our common future", also known as the Brundtland Report: "sustainable development is development that seeks to meet the needs of the present, without compromising the ability of future generations to meet their own needs. ". Also, the issue addressed and brought to the attention is all the more current, justifying and of particular importance, as the steps in this field, in our country, are still in an incipient phase.

The need to consult my own points of view, to find solutions in particular or general cases and, in large part, to formulate personal opinions regarding the complex problems raised by these fields, are a natural continuation of the in-depth study we have granted after obtaining the title of doctor in engineering, specialization Management, with the theme of the doctoral work "Management of anti-pollution systems in the construction of cars", materialized in my continuous professional development concerns by publishing research results in numerous articles, books or chapters in specialized manuals, public support at conferences national or international, etc.

Starting from the aforementioned, we designed this empowerment thesis in order to identify and describe the premises of conceptualization and importance of quality management in the context of globalization of companies, of the fierce competition between them on the market, while at the same time discussing and other issues arising from my research over the years, as well as customizations presenting specific situations, to determine connections and influences of the mode of action and help that the implementation of quality management systems can bring about sustainable devotion, on improvement of management processes within any organization. Therefore the thesis is structured in three chapters, as follows:

**1. In the first chapter entitled The importance of quality management reflected in certain organizations**, we had concerns regarding:

- determining the needs and expectations of clients and other stakeholders;
- establishing the quality policy and objectives of the organization;
- determining the processes, responsibilities and decision-making competences regarding the implementation of the SCM;
- establishing the methods of measuring the efficiency and efficiency of each process;
- use of these methods to determine the efficiency and effectiveness of each process;
- determining the means of preventing non-conformities and eliminating their causes;
- establishing and applying a process of continuous improvement of the CMS;
- how to obtain the competitive advantage, especially at the level of small and medium-sized companies;
- the competitiveness of SMEs.

**2. In the second chapter entitled Impact of quality on the conceptual and operational elements of sustainable development**, we synthesized and analyzed a series of fundamental elements regarding the clarification of concepts, needs, development and integration of the quality management system as an integral part of quality management, as well as the influences its benefits on the improvement of the management process within any organization.

This second chapter manages to show convincingly how the quality assumptions or facets of a product, service, reflect how which are perceived and fulfilled the clients' requirements regarding the quality them. Two quality assumptions play a decisive role in meeting the requirements clients: the quality of design - design and the quality of compliance, and sustainable development follows and tries to find a stable theoretical framework for decision making in any situation where there is a human-environment type relationship, whether it is the environment, economic or social environment. Sustainability practices refer to lower costs and focus on building a community in which to establish an appropriate balance between economic, social and ecological objectives (Nicolăescu, Alpopi, Zaharia, 2015). Sustainable development is still an extremely current topic for the future development of the tourism sector on a global level. The UN launched in 2015 the 2030 Agenda for sustainable development. Initially, sustainable development was intended to be a solution to the ecological crisis caused by the intense industrial exploitation of resources and the continuous degradation of the environment, but gradually it expanded on the quality of life, both economically and socially. Anticipating that the paper will stimulate a profound reflection on how to perceive and apply quality management and sustainable development as a science and profession, it will incite the exchange of ideas and opinions, invite innovation and change, but also interest and action, we consider that the present scientific approach is a very important basis and premise for further research, meant to contribute to the continuous examination and development of the analyzed field. We continued this first part of the present paper with the research process regarding the management and conduct of the quality management implementation. In this respect my concerns started from the studies and researches of the international specialists in the field, so that in this way I can formulate and express my own findings and conclusions regarding the analyzed field of study, materialized in the publication of several specialized articles in national or international magazines, public debates in specialized conferences, as well as in books or chapters in specialized books. In fact, the researches were aimed at theoretical and applicative aspects, their own points of view regarding quality management.

**3. In the third chapter of the paper Own contributions on the Europe 2020 strategy, the U.E. strategy** for sustainable and inclusive growth, for combating the structural weaknesses of European economies and for improving their competitiveness. In this paper, we have determined the most important reports of the Europe 2020 Strategy that have an impact on economic performance, expressed as GDP growth per capita and on economic competitiveness, expressed as the share of countries' exports in total world exports to certain centers. selected from Eastern and Central Europe (CEE) (Poland, Slovakia, Bulgaria, Hungary, Czech Republic and Romania) using OLS panel co-integration tests and estimates with a dataset between 2004 (after four of these countries have accession to the EU) and 2015 (the latest data available for all the reports we used in our analysis). Our results show that the level of tertiary education is the most important factor, positively correlated with both endogenous variables mentioned above. Other important factors for achieving the objectives of economic performance and competitiveness are the ratio of school dropout, the share of renewable energy in the final energy consumption and the employment rate.

The second part of the paper presents the evolution of the academic, scientific and professional career, pursuing three major elements: the didactic activity, the scientific research activity and the administrative activity.

The third part of the qualification thesis highlights the future directions for the development of the academic career, in the global context of the significant and topical scientific achievements in the specialized field "Management", following the same three major directions presented in the second part of the paper. The fourth part of this qualification

thesis refers to the candidate's individual ability to coordinate research teams, to organize and manage teaching activities, to explain and facilitate learning and research. The results of the research presented in the qualification thesis Contemporary challenges regarding the impact quality management on sustainable development, have been published in books and specialized manuals, domestic or international journals, indexed ISI Web of Science with AIS > 0, or indexed in recognized international databases. These scientific works are mentioned **in the following.**

**4. In the fourth chapter of the paper Own contributions Towards Sustainable Digital Innovation of SMEs from the Developing Countries in the Context of the Digital Economy and Frugal Environment,** this study aims to explore the direct impact of the digital orientation, Internet of Things (IoT) and digital platforms on the sustainable digital innovation in the context of the digital economy and frugal environment. This study also investigated the mediating role of the digital platforms in these relations. The study was based on the quantitative research design and data were collected from the 397 CEOs and managing directors of Small and Medium Enterprises in Pakistan. Correlation and structural equation modeling approaches were applied for the analysis and testing of the hypotheses. Results revealed that the digital orientation, IoT and digital platform are major antecedents of the sustainable digital innovation. Results also show that the digital platforms mediate between both digital orientation-sustainable digital innovation link and IoT-sustainable digital innovation link. The rapid pace of change in the technology has forced the business organizations to think out of box and align their operational mechanism accordingly. The need for the sustainable digital innovation is a major need of the current decade for meeting the increasing demands of the society in a sustainable way. Organizations, especially SMEs, should be able to deal with these challenges and rapid technological transformations through cost effective frugal business models. The frugal innovation is an important element of sustainable digital innovation enables SMEs to reduce resources usage and waste and to enhance sustainable economic activities. In this way, they can develop and gain advantages in this highly competitive digital environment. This is the first study showing the bright harmony of the digital orientation, IoT and digital platforms for achieving the sustainable digital innovation in the rapid evolving digital economy.