

SUMMARY

Contemporary organizations operate in a globalized world where the use of information is essential for the effectiveness of decision-making processes. Therefore, the development of accounting information systems with information, communication and knowledge valorization procedures can be a source of competitive advantage for organizations in an environment where digitization processes are ubiquitous.

Considering the scientific achievements during the 24 years of professional activity, but especially after obtaining the doctor's degree in the fundamental field of "Economic Sciences", the field of *accounting*, I considered it necessary and objective that those significant qualitative accumulations represent a starting point for the evolution and development of one's professional, scientific and academic career. In this context, the habilitation thesis with the title *"Improving accounting information systems and the analysis of the economic effects of the use of new sustainable technologies in the knowledge society"* is timely and aims to highlight the main scientific contributions in the field, but also the milestones of the author's professional and academic career - **Assoc. Prof. PhD. Gabriel Cucui**.

The work is structured in three parts that follow: the retrospective evolution of the author's professional and academic career, the main milestones of his own contributions to the improvement and development of the accounting field, but also the plans regarding the future evolution of his professional career.

The first part, entitled Professional and scientific achievements, highlights the professional evolution, scientific research activity and professional prestige after obtaining the scientific title of doctor at the Academy of Economic Studies in Bucharest in 2006.

The second part of the habilitation thesis presents the major research directions and highlights the main original scientific contributions to the development of accounting in three directions:

- *the role of information and accounting information systems in achieving organizational performance;*
- *possibilities of using management information systems in management and decision applications to increase the performance of organizations in the knowledge society;*

- *the use of accounting information systems for the analysis of the economic effects of the use of new sustainable technologies.*

If chapter II highlights the importance of quality and transparent accounting information for decision-making processes, in accordance with the requirements of financial reporting according to I.F.R.S. and corporate governance, chapter III of this qualification thesis presents aspects regarding the management of accounting information in the knowledge society, with an emphasis on increasing the performance of accounting information in integrated IT systems.

Chapter IV of the paper contains useful information regarding the use of financial-accounting systems in management applications for measuring organizational performance, results of scientific research, published in ISI indexed journals, which contain trends in the development of accounting information systems, based on the newest computer technologies. In the fifth chapter of the work, the results of scientific research are presented, regarding the use of accounting information systems for the analysis of the economic effects of the use of new sustainable technologies on organizational performance, which contribute to the development of scientific knowledge in the field.

The conclusions of the scientific component of the habilitation thesis are presented in chapter VI and include a synthesis of the main scientific contributions in the researched field.

The intensification of climate change, the depletion of non-renewable natural resources, together with the increase in the amount of waste and carbon emissions make it opportune to implement sustainable development practices in the activities of economic entities to ensure their long-term sustainable development, to protect the environment, at the same time to ensure the development economic.

Under these conditions, the knowledge-based society becomes a support for ensuring sustainable development.

In essence, the knowledge society represents an expansion and deepening of scientific knowledge and the truth about the use and management of existing knowledge in which: the forms of technological and organizational knowledge, the production of new technological knowledge through innovation and an unprecedented dissemination of knowledge to all users are pursued, using information technologies in particular.

That is why the digitization of financial and accounting processes is possible by developing accounting information systems that capitalize on the latest IT technologies to provide decision-makers with truthful and real-time information to support decisions.

Also, new sustainable technologies, through business intelligence applications, can provide important data for accounting information systems, which can transform them into useful information for substantiating decisions with an impact on organizational performance.

In this context, accounting information systems can be improved by:

- Use of environmentally friendly technologies;
- The integration, in the processes of the organization, of equipment, machines and automated machinery;
- The use of cloud computing and web mining techniques for the effective structuring of data related to business actors on the web;
- Integrating artificial intelligence and business intelligence applications into decision-making processes.

Web mining techniques can be used to improve the quality of data collected, related to the demographic, behavioral, psychological characteristics of business actors, from the web, to improve the quality of the decision-making process and implicitly of organizational performance.

The information and knowledge provided by Internet mining techniques can be considerably more complex than other information and knowledge and can be correlated with other existing knowledge in the organization to obtain new knowledge that can be applied to improve organizational performance.

These technological innovations must be implemented in a climate of social, cultural, economic and organizational change, in which the human resource must be trained to reduce its resistance to change.

Amid the changes and challenges of today's business environment, the use of a competitive intelligence IT system in organizations allows them to:

- continuous improvement of competitiveness;
- predicting, with a high level of confidence, the evolutions of the business environment, the actions of competitors, the demands of customers, even the influences generated by political changes;
- providing better support for the strategic decision-making process.

In the **third part** of the paper, the directions for the future development of the academic career were highlighted, both from the perspective of teaching and scientific research objectives, as well as from the perspective of professional prestige in the academic

environment. My professional career planning is realistic, consistent with the level of my professional skills and concerns in the field of scientific research.