BUCHAREST UNIVERSITY OF ECONOMIC STUDIES

DOCTORAL SCHOOL OF ADMINISTRATION AND MANAGEMENT IN THE PUBLIC AND NON-GOVERNMENTAL SECTOR

SUMMARY

HABILITATION THESIS

Digital transformation of public administration in the era of artificial intelligence: implications for sustainable development and education in public administration

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Abstract

The habilitation thesis presents the scientific, professional and academic achievements obtained after the award of the doctoral degree (2009) and the directions for further career development in the field of administrative sciences. Its unifying theme is the digital transformation of public administration, examined in relation to artificial intelligence, sustainable governance, education for the public sector, quantitative methodological tools and institutional resilience.

Section 1 organises the achievements into six thematic dimensions, each presented against the current state of research and documented through published works.

Dimension I traces the evolution from the computerisation of public administration to digital governance, starting from the sequence computerisation – e-Administration – e-Government – e-Democracy formulated in 2004 and continuing with a comparative analysis of e-administration in Romania and France, a formalisation of the administrative paradigm shift and a synthesis of the transition from bureaucracy to e-Government in the context of sustainable development.

Dimension II analyses IT governance, artificial intelligence and emerging technologies, including the economic effects of AI adoption and the use of quantile regression and GMM models to study technological and economic interdependencies.

Dimension III develops the concept of sustainable digital governance on the basis of five works that combine bibliometrics with a DESI-based diagnosis (the Romanian digital paradox), reposition digital public administration as a generative infrastructure for sustainable development, and analyse adjusted net savings, the Kuznets curve applied to Romania's forest area and the operationalisation of Sustainable Development Goal 11.

Dimension IV addresses education for public administration: training evaluation through fuzzy techniques, adaptive digital content generation, institutional e-learning ecosystems and the professional training of civil servants during the COVID-19 pandemic. These are synthesised into a pedagogical triad (adaptive assessment, adaptive content, adaptive institution) and put into practice through the course Digital Public Administration.

Dimension V presents the methodological contributions, organised as a tetrad: data mining for behavioural segmentation, complemented by structural equation modelling (PLS-SEM), hybrid composite indicators for economic simulation (BADEM), systematic bibliometrics and quantitative surveys.

Dimension VI analyses institutional resilience in times of crisis, from the resilience of public administration during the pandemic to organisational resilience achieved through the digitalisation of human resource processes and proposes two formalisations of resilience. The section concludes with the C⁶-DI model of digital-institutional convergence, which integrates the six dimensions into a semi-formal conceptual framework.

Section 2 outlines a career path pursued entirely at the Bucharest University of Economic Studies—advancing from the position of junior teaching assistant (2004) to associate professor—as well as the internationalization of activities through collaborations with foreign universities, Erasmus+ mobility programs, and regular participation in international conferences. These experiences facilitated direct contact with professors and researchers from other countries, the establishment of academic networks and partnerships, and the development of lasting professional and personal relationships. The section also highlights involvement in quality assurance (as an ARACIS expert evaluator) and the development of digital infrastructure for public administration research.

Development plans are structured on three levels: research, teaching and institutional application. Future research follows four directions: digital governance and institutional interoperability, artificial intelligence in public administration, sustainable governance at local level and institutional resilience. For each direction, the research question, methods and data sources are specified, and the integrating objective is the empirical validation of the C⁶-DI model. Building on the artificial intelligence direction, a research programme on the role and risks of artificial intelligence in public administration is proposed, in which doctoral students will be involved.

Section 3 contains the bibliographic references associated with the first two sections. The thesis thus supports the author's capacity to initiate and coordinate independent research in administrative sciences and to integrate research results into the training of public sector specialists.