



BUCHAREST UNIVERSITY OF ECONOMIC STUDIES

Council for Doctoral Studies – CSUD

Doctoral School: Business Administration II

HABILITATION THESIS

**Business Transformation Models and the Process
of Organizational Change in the Context of the Energy Transition**

Candidate: Associate Professor STAMULE Tănase, PhD

Bucharest, 2024

The habilitation thesis „**Business transformation models and the process of organizational change in the context of the energy transition**” is written following a series of original research articles published in good journals around the topic. These articles focused on the evolution of the new management strategies in Romania, the business environment challenges and the organizational change process applied in enterprises’ efficiency improvement, solutions for the energy sector and, also, for the educational sector.

My personal contributions to the research field are materialized on two levels: theoretical and practical contributions. Theoretical contributions highlight the ways in which organizations could improve their management processes that includes “knowledge leadership” with both managers’ and leaders’ qualities merged into the so-called knowledge leaders, able to integrate knowledge management systems into economic environments. Theoretical contributions presented in this thesis rely on strong literature reviews and own empirical analyses in the research areas of organizational change, business transformation and energy transition. Particularly, the thesis summarizes my perspective on different concepts pertaining to the domain of organizational change applied in enterprises’ efficiency improvement process, as it is seen in a normal competitive environment, as well as in the context of energy transition. In the meantime, the applicative contributions highlight, by means of empirical research conclusions, as well as by that of econometric and statistical analyses, the way by which organizational management is able to adapt to market demands and better manage the challenges associated with energy transition.

Based on own understanding of fundamental concepts detached from the literature review, as well as own original research findings synthesized based on selected papers, this habilitation thesis develops the concepts of organizational change applied in enterprises’ efficiency improvement and energy transition from a personal perspective, realizing original analyses and critical syntheses.

Scientific and professional achievements in the area of organizational change (and business transformation)

The paper entitled „*Leadership in Romanian Small to Medium Enterprises*” (Crăciun et al., 2015) developed a broad statistical research on Romanian small to medium enterprises (SMEs), with the goal of better understanding: (1) the incipient organizational culture of a recently-opened East European market; and (2) the role of leadership in increasing the competitiveness of SMEs. The paper studied the perceived characteristics of a leader and their influence on the organization's results (as seen by employees), and it revealed the subliminal inter-correlations among these characteristics. The six factors identified by our analysis were: adaptability; cooperation; authority; charisma; confidence; motivation. These basic components are aimed at increasing competitiveness in Romanian enterprises and at designing better training programs for managers and entrepreneurs acting on East European markets, adapted to the real characteristics of these young economic environments.

The study titled „*Determinants of Student Loyalty in Higher Education: A Structural Equation Approach for the Bucharest University of Economic Studies*” (Todea et al., 2022) examined empirically the key factors influencing student loyalty by testing two models, namely

perceived quality, brand associations, satisfaction, trust, and commitment, and to test the relationships among them. The findings revealed that commitment has the most significant direct impact on loyalty. The other factors have an indirect effect, satisfaction having the most significant total effect, followed by trust and commitment. Therefore, universities must focus on improving service quality to develop positive brand associations, student satisfaction, trust, and commitment in developing student loyalty.

The study entitled „*Good Practices on ESG Reporting in the Context of the European Green Deal*” (Dănilă et al., 2022) highlighted the importance of complying with social, environmental, and governance reporting of large companies and the banking sector alike in the context of adopting the European Green Deal. Furthermore, the research showcased how the new disclosure requirements and recommendations have been adapted and translated into non-financial ESG reporting (environmental, social, and governance impact of economic activity).

The paper titled „*Entropy as Leading Indicator for Extreme Systemic Risk Events*” (Lupu et al., 2022) focused on extreme systemic risk situations to document their dependence on market action present in the preceding time intervals. We use the N-BEATS model, which proved to be one of the best neural network tools to predict time series, detect anomalies (jumps) in the dynamics of CoVaR measures for the most liquid banks in the European markets, and measure the Shannon entropy of the power spectral density in samples that lead to these events. Employing several logistic regressions, we document the capacity of entropy to explain the realisation of these anomalies.

Scientific and professional achievements in the area energy transition

The article entitled “*The REPowerEU Plan and the Transition to Green Energy in Romania*” (Dincă et al., 2023) investigated the perception of Romanian companies about favourably substituting fossil fuel to decrease emissions and reliance. This research examined the obstacles/challenges that have an impact on the adoption of renewable energy from the point of view of Romanian companies. The results revealed that market (economic), technological and administrative obstacles affect with a major impact the implementation of renewable energy technologies in Romania. Community (social) and organisational obstacles have been determined to influence with a medium effect on the deployment of renewable energy technologies in Romania. The outcomes of the article contribute to increasing awareness of the imperativeness of substituting fossil fuels by accelerating Romania’s clean energy transition and considering the great potential the country has for making this switch.

The paper titled “*An analysis of anticompetitive behaviour on the retail fuel market across different Central and Eastern European countries*” (Stamule et al. 2023) aimed to apply a cartel screening on the fuel retail market in six different countries from Central and Eastern Europe, namely Romania, Austria, Bulgaria, Czech Republic, Poland, and Hungary. Being a market with traits conducive to cartel formation, competition problems may easily occur on this market.

The article entitled „*Exploring the Generation Z Attitude towards Energy Efficiency Improvement and Decarbonization through Heat Pumps: An Empirical Study in Romania*”

aimed to analyze the attitude of Generation Z representatives from Romania regarding the improvement in energy efficiency and decarbonization through the utilization of modern integrated technologies such as heat pumps, thermal energy storage, and smart control systems. The results showed that there are six categories of factors influencing the attitude of Generation Z representatives, with "Drivers for improving energy efficiency" along with "Traditional measures for improving energy efficiency" having the largest influence on driving a positive attitude toward energy efficiency improvement and decarbonization. The main policy recommendation derived from this study refers to developing policies and strategies that incentivize citizens not only to have a positive attitude toward energy efficiency and decarbonization through the utilization of heat pumps but also trigger concrete action for installing heat pump technology. Another recommendation concerns the further development and expansion of national and local programs for insulating the external surface of buildings and the replacement of windows and exterior doors that do not have thermal insulation. The third major recommendation is related to awareness creation campaigns among the population about modern measures for improving energetic efficiency, such as heat pumps.

The paper entitled "*Production networks and resilience: How dense production networks shield economies in financial crisis*" (Caraiani et al., 2024) delved into the underexplored area of how production network structures influence the severity of economic downturns, particularly during the last financial crisis. The findings reveal a noteworthy positive correlation between the density of production networks and economic resilience during the crisis, which remained consistent across multiple model specifications. Conversely, higher interest rates were linked to poorer economic performance, highlighting the critical interplay between monetary policy and economic outcomes during periods of financial instability. We propose a policy recommendation emphasizing the strategic enhancement of production network density as a potential buffer against economic downturns.

Career development plans and future perspectives

The teaching activity that I carried out so far was focused on teaching disciplines with a very high degree of applicability which allowed me to make interdisciplinary connections as well as a thorough knowledge in different fields. Also, it has always included the specific activities for scientific coordination of writing seminar projects, advising and coordinating activities for the final bachelor project or capstone project for the students. I believe that a good teaching activity leads to an increase in the degree of satisfaction of the students, and transforms them into agents for the promotion of our educational offer. At the same time, the teaching activity must also contain a component of educational projects, which motivate students and diversify our offer.

Our school and its UNESCO Chair Department for Business Administration in Foreign Languages contribute to achieving the UN's Sustainable Development Goals through high quality education, research and lifelong learning programs, entrepreneurship, digital and clean energy initiatives, partnerships for sustainability across communities and cities. Our study programs are compatible with similar programs across the world and prepare our students for the current and future labor market, both in the corporate world and the start-up ecosystem, at

national and international level. As a member of this academic community, I will continue bringing my contributions to maintain a harmonious working environment within FABIZ, by strengthening good communication between department members and the external teaching community, improving communication with the secretariat and by developing existing resources and making them more efficient.

My future development directions of the teaching activity will focus on maintaining a harmonious working environment within FABIZ, by strengthening good communication between department members and the external teaching community, improving communication within colleagues and by developing existing resources and making them more efficient. To improve the activities within the faculty, we will involve students in the volunteer system to support students who want to gain practical experience, but also to relax the administrative pressure from the UNESCO department.

In the future, I intend to continue the activity regarding the scientific, professional and academic areas, improving continuously the teaching skills, the research areas and also the administrative and managerial issues.