

RESEARCH STUDENT SEMINAR

Friday 18 December 2020

12:30-13:30

ONLINE

“Exploring Agri-Food Circular Economy Practices that Lead to Social Value”

By

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ABSTRACT

Circular economy (CE), as the new paradigm for resource efficiency and environmental sustainability, plays a critical role in the agri-food eco-industrial parks which are widely prone to inefficiencies, waste and irregularities that have a harsh societal impact. To date, the existing academic literature primarily accounts for the economic and environmental performance of CE practice implementation in the agri-food sector and beyond. When it comes to social value, the extant literature denotes advancements covering mostly added-value services (i.e., CSR programmes) and completely disregards the social value of CE that derives from CE operations. In this context, the aim of this study is to explore the social value deriving from CE practice implementation within agri-food supply chains on the eco-industrial park level. To properly explore the social value that derives from the implementation of CE practices within agri-food eco-industrial parks the literature (and theoretical foundations) poses for the need of a mixed theoretical approach. Therefore, in order to explore the social value potential of CE practices in agri-food eco-industrial parks, this study aims at combining theories that are discussing the CE practice adoption (institutional, stakeholder, diffusion of innovation, resource-based view theories) and CE-related theories (theory of industrial symbiosis, cluster theory, contingency theory etc.). Additionally, drawing upon the mixed theoretical foundation and the literature findings this research proposes a conceptual framework (based on the institutional theory external pressures – mimetic, coercive and normative). The conceptual framework aims to explore how the agri-food companies are motivated by these pressures to adopt CE practices within the agri-food eco-industrial parks, as well as to examine if the social value that derives from the CE practices implementation also has an implicit impact on the economic and environmental performance. Drawing upon the critical realist triangulation, a mixed method approach will be adopted in exploring the social value that derives from CE practice implementation within agri-food eco-industrial parks, as well as in order to explore the proposed conceptual framework. The methodology consists of two phases. Phase 1 involves building of quantitative causal models, and aims at exploring the theoretical and conceptual framework, as well as it aims at validating the literature review findings. Specifically, within this stage, quantitative data will be collected through semi-structured surveys (the targeted sample is 200 responses) that will be proportionally distributed among agri-food companies from 5 industrial parks (United Kingdom, Italy, Greece, Argentina and China). The data will be analysed through running statistical tests (ANOVA, exploratory factor analysis, path analysis and structural equation modelling). The results will be used to propose recommendations, to validate the findings of the literature review, as well as to prepare the basis for the second phase. Phase 2 consists of Hybrid Life Cycle Assessment (LCA) modelling, and the aim of this phase is to explore whether the social value that derives from CE practices implementation is environmentally sustainable. Within this stage, three out of the five industrial parks will be explored based on secondary datasets that will be obtained through the companies' databases and databases such as Ecoinvent. Additionally, in order to collect missing data interviews with the companies' representatives will be performed. The Hybrid LCA modelling will be performed in the SCEnATI software. Lastly, the findings of this stage will be used in further validating the findings from literature review, as well as to propose recommendations to the agri-food eco industrial park stakeholders.

The seminar series is open to all members of *staff and students* of CITY and to any *externals* that wish to attend.