

Editorial

Possible Routes to Implementing Circular Economy in the Olive Oil Supply Chain

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EDITORIAL

The Circular Economy (CE) is rapidly being considered as a promising paradigm for transitioning agro-food systems to more sustainable consumption and production systems, enabling virtuous and regenerative biological metabolisms based on eco-efficiency and eco-effectiveness strategies. This paper aims to give a theoretical and empirical framework for implementing CE principles in the olive oil supply chain, which is critical to the Mediterranean region's agro-ecological systems. A comprehensive literature review was done in order to identify the potential pathways for redesigning the olive oil supply chain from a circular perspective that have been previously addressed by academics. The reviewed literature was organized based on the circular pathway studied and the supply chain subsystem(s) to which it referred. The fundamental concerns, the technology readiness level of the accessible pathways, the prevalent techniques, and knowledge gaps are discussed. The examined paths are visually framed within the Ellen MacArthur Foundation's CE 'butterfly' graph using a synthetic evidence map.

The work is intended to serve as a useful starting point for determining how circularity may be advanced in the olive oil supply chain, as well as what strategic possibilities and hurdles must be overcome in order to facilitate the shift. A critical as well as compelling challenge inside the context of end-of-life processes for

sustainable waste management is to reshape agro-food systems that are currently operating primarily with a viscous dissipation and wasteful open-ended conception, in order to allow virtuous bio valorization practices based on zero-discharge precepts, as well as cyclical and regenerative starting to think. According to the concepts of the circular economy, completely new methods of treating organic streams may result in substantial reductions in loss and waste production, input needs, virgin and non-renewable resource utilization, and environmental footprint while developing new prospective value chains.

A number of scientific works based on literature reviews have emerged in recent years to examine the adoption of CE models and tools within the agro-food sector, also on account of the well-established understanding of the latter's pivotal role in transitioning to more sustainable futures, riding the wave of growing scholarly attention for this emerging key paradigm. Unlike prior studies that systematically investigated literature to provide a broad framework for the agro-food industry, the current study uses a scoping review technique to provide specific insights on how CE may be operationalized in a specific agri-food system, namely the olive oil supply chain.

A scoping literature review was done to identify the current circular paths. Scoping review is a method of knowledge synthesis that determines the available range of evidence for addressing a broad, exploratory research question in an emerging or not yet comprehensively reviewed field of inquiry,

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with the goal of "informing practice, programmes, and policy and providing direction to future research priorities."

Scoping studies use a systematic approach to quickly map the literature coverage, core concepts and issues, evidence forms, and gaps on a given topic, especially when the body of knowledge is extensive and heterogeneous. The process for conducting the scoping review was based on five critical steps, which were first outlined and integrated by others.

- Formulating the research topic.
- Using a search strategy to find relevant studies.
- Selecting studies based on eligibility criteria.
- Graphing the data.
- Compiling, summarizing, and reporting the findings.

Many circular paths are already recognized and suitable for triggering the change of the olive oil supply chain to a CE model, according to his study, but most of them are only specified at the niche level. The literature research identified pathways that are mostly focused on technological difficulties, while other important factors such as organizational and synchronization are underemphasized.

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