

Designing a sustainable, circular culinary system - The case of the tourism region of Valais, Switzerland

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PURPOSE

The purpose of this paper is to design a sustainable, culinary system based on the principles of circular economy and systemic design integrating restaurants and hotels of a rural tourism region. The overall research question is: How can the current food system be transformed into a sustainable, and circular culinary system creating benefits for all stakeholders? The subordinate question is: Which are the current challenges and potentialities of the food system in the case study region? The paper focuses on the value chain of fruits and vegetables including growers, transformers, hotels and restaurants, as well as a waste treatment company. The article is based on the hypothesis that through a better management of flows of matter and human relationships, economic, ecological and social benefits can be created.

RESEARCH METHODS

As the main aim of this exploratory study was to understand the challenges and experiences of the different actors involved in the current food network rather than measuring flows (Oinas, 1999), the researchers adopted a qualitative approach based on the principles of systemic design. Employing a purposeful sampling strategy (Yin, 1994), the authors conducted 15 semi-structured interviews with different actors along the value chain in the canton of Valais, Switzerland, concentrating on their challenges regarding the treatment of food waste and their relations with the other actors of the food system, as well as on existing solution strategies. Informal discussions and immersions completed the insights gained during the interviews (Stake, 1994). The main aim of the interviews was to identify the criticalities and potentialities of the current food network. Finally, drawing from empirical insights and scientific literature, the authors designed a model of a sustainable and circular culinary system.

RESULTS AND DISCUSSION

The results show that among the factors needed to create a sustainable, circular local food network are a centralised distribution system, efficient transport, a better food waste management, sensitization/education of different actors, as well as a better promotion of regional food. Those findings are in line with previous literature. The resulting model of a sustainable and circular culinary system includes a regional coordination hub that coordinates the different material and relational flows, the transportation system, and promotional activities including a central market place platform. However, the implementation of such a system depends on the willingness of the different actors to collaborate and the feasibility of certain measures in the context of a rural region, where the critical mass to implement certain solutions is often missing. One of the main obstacles for restaurants to buy regional food is the price difference compared to products from abroad. The corresponding hypothesis resulting

from the findings is that restaurants and hotels can save money if a) the producers sell products of different price categories via a central platform, including fruits and vegetables stemming from overproduction or being non-compliant or deformed and if b) the restaurants adopt measures to deal with, valorise and reduce food waste during the preparation and consumption stage. The originality of this study lies in the deepening of the circularity aspect regarding existing literature on sustainable culinary systems. On the other hand, by highlighting the analysis of material flows and human relationships and needs, the study contributes to the circular economy literature that mainly focuses on manufacturing industries and quantitative methods to improve the value chain of a product.

IMPLICATIONS

The results are of particular interest for policy strategies focusing on the promotion of regional food networks. For practice, the study suggests different solutions to transform current food systems into circular, re-localized food networks that help valorize local food in rural tourism regions. Future research will focus on testing the model of a sustainable and circular culinary system and measuring its outcomes at the three levels of sustainability.

KEYWORDS

Sustainable culinary systems, Systemic design, Circular economy, Food waste, Food tourism

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