

Resilient operations as an alternative to deal with surplus food for human consumption

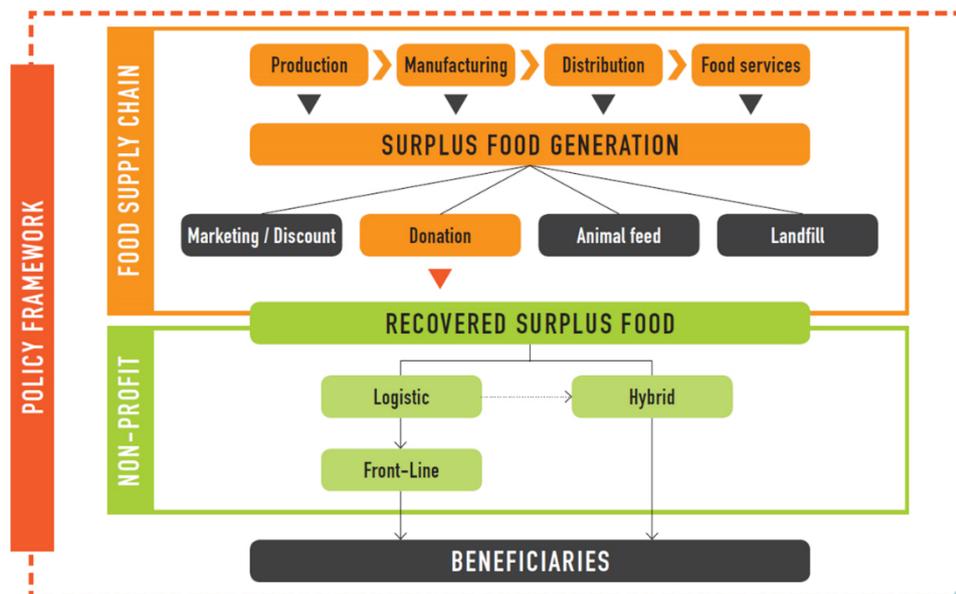
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Project Description:

Food insecurity is at odds with the available evidence of food surplus. People often fall prey to food deprivation not because food is unavailable on the market, but as their access to food is constrained due to ineffective distribution. According to FAO (2022), the global volume of edible food waste is estimated at 1.3 billion tonnes, whilst 800 million people go hungry worldwide. Therefore, poverty, waste, and ineffective distribution seemed to be some of the main causes of hunger or food insecurity (Blessley and Mudambi, 2022).

Surplus food is defined as edible food that is produced, manufactured, retailed or ready to be served, but which for various reasons is not sold to, or consumed by, its intended customers (Baglioni et al., 2016). Although surplus food redistribution to the people in need cannot alone be effective to tackle food poverty, it is indeed an alternative to tackle food waste at the global level and to contribute to diminishing food poverty (FAO, 2022).

Initiatives geared towards the recovery of unsold but still edible food for redistribution to those in need have been generated in the last decades to provide affordable and accessible food. Among the different actors involved, such as public sector organisations and private organisations generating food surplus, the actual recovery and redistribution of the surplus food are managed by non-profit organisations that can vary in terms of characteristics, services and activities (Bazerghi et al., 2016). Some of these organisations are only in charge of the logistic function (see Figure 1), where they organise the recovery and redistribution of food to local organisations that then deliver the food to the final users. These local organisations are the actual front-line organisations that have a relationship with the people in need and oversee distributing the food through, for example, food banks, canteens, food parcels or solidarity markets (Baglioni et al 2017). Other organisations provide both logistic and front-line services, being then referred to as hybrid organisations in Figure 1.



From the perspective of waste reduction and reduction of food insecurity, non-profit organisations managing surplus food (e.g. food banks, social supermarkets, social pantries, digital app) offer a win-win solution for the private sector (i.e. potentially reducing the cost of waste management and increase their corporate social responsibility), for charity organisations involved (i.e. pursuit of their social missions) and the society as a whole (i.e. guaranteed access to food for the poorest part of the population).

Food supply chains have a clear societal role in sustaining human life and therefore have moral and ethical concerns attached to them. Thus, to support non-profitable organizations to achieve great levels of effectiveness in recovering and redirecting surplus food, they may develop resilient actions (Pereira et al., 2014, 2020) to deal with unpredictable events that might occur through food supply chain in the today's unstable and volatile market (Costa et al., 2022; Moraes et al., 2020). This project aims therefore to explore how resilient operations can support organisations to recover and redirect surplus food for human consumption.

Although the perspective of a non-profitable organisation is preferred, proposals may focus on the profitable side of the food surplus. Acknowledging that food insecurity and living conditions are different in different countries, comparative studies between the UK and other countries are also welcome. In this sense, data collection may follow qualitative, quantitative and/or mixed method approaches since it is well structured and justified. Proposals should also consider the use of digital technologies to collect data and support the development of resilient actions, if it is appropriate and aligned to the proposal.

The research should have the potential to deeply think, explore and propose alternatives to deal with food surplus that can be the source of food to thousands of people in need. This also positively impacts the level of food waste that might be reduced by redirecting food surplus to the right channels. Additionally, according to Blessley and Mudambi (2022), food supply chains need to build resilience to avoid food waste and help charity organisations. More broadly, improvements in supply chain resilience can save lives and substantially enhance non-profit and for-profit performance. In essence, it is envisaged that this work will provide contributions to theory and practice, leading hopefully to a positive societal impact.

Proposals should bring forth a clear impact of the study as well as reasonable justifications on the different contribution's perspectives.

About the Supervisors:

Dr Carla Pereira's research interest covers the area of risk, resilience, and sustainability in supply chain, food supply chain, humanitarian operations, lean thinking and urban resilience.

Dr Francesca Calo's research interests are social innovation, evaluation of social innovation initiatives, migration and inclusion in the labour market.

Dr Nicoleta Tipi's research interest is in the area of supply chain analytics, supply chain sustainability and resilience and the development of performance measurement systems.

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