


# Chapter 11

## Evaluating the Sustainability of a Local Food Donation Network: A Network Analysis Approach

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### **ABSTRACT**

*Online solutions link needy people with extra food were prompted by food waste and instability. This article proposes the Local Food Donation Network, an online platform connecting supermarkets and restaurants with NGOs feeding the underprivileged. The research aims to reduce edible food waste and ensure fair food distribution. The web-based Local Food Donation Network connects donors with NGOs in real time to hasten food supplies. The frontend uses HTML, Bootstrap, and JavaScript; the backend uses Node.js with Express or PHP. A donation tracking dashboard, GPS-based location search, and real-time contribution alerts are available. NGOs might claim local food contributions from donors. Map integration ensures timely delivery and lets recipients determine the shortest pickup path, eliminating logistical issues. Hunger, food waste, and community-driven activities are addressed by the platform. Technology helps needy people share extra food, creating a sustainable and socially responsible ecology.*

DOI: 10.4018/979-8-3373-3957-3.ch011

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## INTRODUCTION

Different food donation networks have emerged from the rising problem of food waste and its effects on communities. The Local Food Donation Network is presented in this article as a platform meant to link food donors such as supermarkets and restaurants with non-governmental organizations (NGRs) that help to distribute food to those in need. This platform tries to simplify contributions while increasing community involvement and lowering food waste as communities deal with the dual problems of surplus food and hunger Alexander, C., & Smaje, C. (2008).

Because of the vast and diverse natural resources used, the basic human need for nutrition, and the societies depending on food production for existence, the food sector has natural sustainability problems. Improving sustainability in the food sector calls for global players to address consumer needs, limited resources, international norms and legislation.

To reach sustainable goals, the writers underline the requirement of cooperation all along the supply chain. Environmental sustainability partnerships are characterized as interactions among supply chain players aiming at accomplishing similar environmental objectives, which may be geared upstream or downstream and may occur both intra- and inter-organizational. Establishing a good connection so depends on knowing participants in cooperative efforts and their individual goals. Various tiers or “stages” within the supply chain, however, may apply various sustainability methods and goals, thereby guiding choices on the kind of cooperation, the partners engaged, and the fundamental underlying motives needed to grasp (León-Bravo, et al. 2017).

Within the food sector, sustainability practices have exploded and studies have been done to assess how they affect performance indicators like quality, efficiency, flexibility, and responsiveness. Still, not much is known about cooperative sustainable practices at many points in the supply chain. The authors claim that cooperation might influence the execution of certain methods and their resulting performance results. Still, to our knowledge, no study has looked at the expected results in sustainability performance from cooperative sustainability plans at many phases of the supply chain. This paper aims to close a knowledge gap by analyzing the forms of cooperation for sustainability used at several phases of the food supply chain (FSC) to get a complete supply chain viewpoint and to investigate the performance goals connected with the development of cooperative sustainability practices.

In sustainability, performance means reaching a goal that is sustainable. Research on the sustainability performance of supply chains has mostly focused on defining measures, usually at one stage of the supply chain, which is the focal firm. This is especially true for the Forest Stewardship Council. The proposed actions are primarily environmental and are intended to respond to external constraints and conditions.

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