

Estimate of food waste generation in the retail sector in Greece

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Abstract

Although the “Retail and other distribution of food” (RoDF) sector of the Food Supply Chain (FSC) is responsible for a quite small share of the total food waste (<10%), it can transpose food waste generation to the rest FSC sectors, through quality (aesthetic) standards setting, expiration dates handling (i.e., returns policy), and influence of households’ purchases. This study attempts to quantify food waste generated in the (RoDF) sector, by analyzing data for the year 2020, collected by one of the largest supermarket chains (AB Vassilopoulos) in Greece. To estimate the amounts of generated waste, detailed recordings of the quantity and value of unsold food (shrink) were processed. The recorded products were provided either in weight units or items. When provided in items, they were converted into weight, utilizing net weight of the products or typical unit weights of nutrition and dietetics databases. The preliminary results shows that for the year 2020, the unsold food, food waste and food donation accounted for the 2.06%, 1.90% and 0.16% of food handled in the year 2020. The data were analyzed based on two factors: 1. the main store activity departments, i.e., grocery, fresh meat, fresh fish, bread, and pastry, etc., and 2. the main reason the food items have not been sold, i.e., food donation, store food waste, warehouse food waste and store returns. The results indicate that the main food waste quantities are generated by the following departments: fruits & vegetables department (32.1%), dairy product department (27.4%), deli & bakery (18.5%), meat & fish (14.0%), grocery food (7.0%), and frozen (1.1%). The analysis of data showed that food waste accounted for 1.9% of food handled, and food donations for 0.2%. Following this food waste quantification study AB Vassilopoulos developed, in collaboration with WWF Greece, and begun implementation of its action plan to reduce waste and enhance donations.

Keywords: food waste, retail sector, Greece

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