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Surplus retail food redistribution: An analysis of a third sector model

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ABSTRACT

This paper analyses food donation by large retailers to the British charity FareShare and its franchises for redistribution to charities, examining how far the aims of waste minimisation and food poverty relief are achieved. The research emphasises the logistical arrangements for retail food waste reduction. FareShare's tripartite model, in which it brokers between retailers and charities, is efficient and effective. However, our research highlights frictions within the model that may vitiate its wider application: the hierarchy of donor, redistributive agency and client limits the clients' ability to control food flows; individual franchises' success depends on relationships with store managers; amongst retailers, tensions exist between profit maximisation, waste minimisation and brand control. Surplus food needs to be donated early in the supply chain to maximise utility for recipients; this may conflict with logistical and property arrangements to control brands and delay ownership of food items. Possibilities for improving and extending the service delivery model are discussed, as are current limitations. For example, the logistics of redistributing perishable items limit the possibilities for extending the model to smaller retailers with more sporadic surpluses.

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1. Introduction

WRAP's (2008) report on food waste highlighted the quantities of edible household food discarded in the UK - nearly a third of the amount purchased – and the consequent costs for both households and councils. In addition, the report points to the annual environmental impact of 18 million tonnes of CO₂ being emitted from such wastes. WRAP's report was timely, reinforcing broader concerns on diminishing global food availability and rising costs for reasons such as increasing urbanisation, raised standards of living, dietary changes, and bio-fuel production (Von Braun, 2007; Katz, 2008). Together with the requirement to reduce landfilled wastes, such concerns are likely to extend food waste reduction programmes aimed at tackling the entire supply and consumption chain. Along with the focus on household food waste, therefore, there is thus a need to consider, and redesign, the various points along the production and distribution of food where wastes are also generated. In line with such a move, this paper provides an empirical case-study analysis of the waste minimisation work undertaken by the British charity FareShare against the background of food waste generated in the food retail sector. With both the implementation of the EU Landfill Directive (1999), which penalises the disposal of biodegradable food to landfill, and the waste hierarchy's emphasis upon waste minimisation and re-use over composting, energy recovery and disposal options, the diversion of surplus fit-for-purpose food from landfill disposal is assuming increasing importance. It is, however, a route that is downplayed in DEFRA's Waste Strategy 2007.

Here, we focus on one logistical and administrative mechanism for raising diversion rates of biodegradable matter. In doing so, we follow Fehr et al. (2002), who point out, in the Brazilian context, that 'existing technologies by themselves have not been able to significantly raise diversion rates of biodegradables in spite of the impressive apparent potential' (Fehr et al., 2002, p. 1). They argue that while technologies of composting, accelerated anaerobic digestion and landfill – with and without methane capture – are relatively advanced, administrative gaps remain between producers, retailers and households, which lead to food waste generation (Fehr et al., 2002). We pursue this emphasis on administrative gaps or tensions in managing waste minimisation via the tripartite model of food retailers, FareShare, and recipient charitable projects; as explored below, the model's aim of re-channelling surplus food addresses more than landfill diversion.

The case-study illustrates two things in particular. The first is a mechanism for redistributing surplus, fit-for-purpose food to charities before it irrecoverably becomes waste that is generally destined for landfill. The material presented here demonstrates both how much donated food is actually eaten, rather than disposed of, and organisational tensions that arise in the process of redistributing

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the food. The second point emerges from a discussion of the logistical and administrative setup. What at first sight appears to be an arrangement that suits all parties, whereby excess is directed to useful ends, is in fact partly vitiated by conflicting aims between and within participating groups. Retailers, for example, driven by shareholder value, seek both to extract as much profit as possible from commodities and to avert disposal costs through donation-aims that can work against each other when the moment of donation is delayed too long. At each point where items are transferred from one party to the next, ownership, whether of assets (fit-for-purpose food) or liabilities (waste), is similarly transferred, occasionally contested. In the case of perishable food, the temporal element separating assets from liabilities is particularly acute. Where items are branded, the conditions that accompany the donated item in its onward trajectory are particularly stringent since, if such items are misused, this could have a negative impact on the retailer's brand value. Conceptually, this raises interesting questions about how and where waste diversion is accounted for, plus the nature both of the object being exchanged and the exchange itself.

Although the amount of food waste currently generated by retailers is considerable, and therefore a prime target for reduction measures, precise quantification is difficult as accounting methods vary. Approximately 500,000 tonnes of food waste from UK retailers specifically are disposed of annually, largely to landfill (Betts and Burnett, 2007, p. 5; Vidal, 2005). Broadly speaking, retail food waste discarded to landfill only represents about a third of the total food waste generated in the sector since on-going efficiency measures have sought to maximise the rate of re-use as far as possible (DEFRA, 2007, p. 70). The Courtauld Commitment (2005), for example, is a partnership between the Waste and Resources Action Programme (WRAP) and the larger grocery retailers to investigate and implement innovative means of reducing packaging and household food waste. Of the amount discarded, estimates of fruit and vegetable waste vary between 26% and 44%. The figure of 26% is derived from Sainsbury's figures in Tara Garnett's study (2006). The figure of 44% is derived from a 2-week study by Evans (2005). The discrepancy might be explained by the fact that larger retailers tend to have more leverage in only accepting Class I standard fruit and vegetables (see the United Nations Economic Commission for Europe' standards for perishable foodstuffs, http://www.unece.org/trade/agr). Drawing on the Environment Agency's Industrial and Commercial Waste Survey 2002/3, a figure of 660,000 tonnes may be derived as the amount of food waste landfilled annually from the UK's industrial and commercial sector more broadly, although Betts and Burnett (2007, p. 44) suggest that the actual figure is higher as large amounts of food waste are mixed in with other materials and recorded in general waste streams. It is worth considering figures for food waste from both retailers and manufacturers since waste minimisation strategies in this industry frequently entail delaying ownership of an item until the last possible moment, pushing back accountability from point of sale to manufacturers and logistics companies as discussed below. Donating items to FareShare for redistribution again represents shifting ownership for potential food waste and hence liability for its disposal.

Even harder to quantify is the amount of food that is not saleable, is not technically 'waste' according to legal definitions and yet is still fit for human consumption. In effect, it is surplus to a retailer's ability to generate profit. There are several reasons for the production of surplus food in this sense (Betts and Burnett, 2007, p. 46): non-perishable foods can be mislabelled, there can be cancelled orders, end-of-line runs, out-of-date promotions, or items that have damaged or incorrect packaging. In addition, surplus food results from: seasonal ordering, over-ordering, new product testing or developments, manufacturing error, insufficient shelf-life, unpredictable events such as sharp weather changes, and poor quality control. A

manager from one of the main donor supermarkets interviewed in our study also cited market volatility leading to over-supply and transit damage to multipack items. Perishable fresh food such as meat, dairy products, fruit and vegetables may be past the sell-by date but still safe to eat (before the use-by date). Perishable prepared food such as sandwiches may be slightly stale and therefore less marketable the following day, even though technically both saleable and usable.

Clearly, the definition of surplus food is not absolute; as we discuss below, there can be some conflict between retailers wishing to extract profit from items if possible up to the moment when they are irredeemably unusable and hence waste, and potential recipients for whom value is maximised the earlier food is received. FareShare's internal report (2005), however, suggests the term 'surplus' instead of waste causes confusion within the industry as a non-standard category—but that 'waste' merely suggests unusable products. As this article demonstrates, early diversion not only benefits recipients but also minimises the final amount of waste generated overall.

Other than diverting food waste from landfill, there are two related aims in this kind of redistribution. The first is to supply food to charitable organisations that already feed people, thus allowing them to divert part of their existing income stream towards additional activities or expansion. The second aim is to address food poverty. In the UK, this is generally defined as the situation whereby a person does not have reasonable access to food that would provide a healthy diet because of insufficient income, or unreasonable difficulties of distance, transport or similar, or inadequate information (Department of Health, 2003, p. 11-14).

It is worth emphasising that food poverty refers to a healthy diet rather than lack of food (Ravallion, 2002, p. 32). Meeting this aim through redistribution therefore places particularly heavy weight on being able to give fresh fruit and vegetables to those who might otherwise not have access to such food types. The numbers suffering from an unhealthy diet are substantial. Morris et al. (2000) estimate that 4 million people in the UK cannot afford a healthy diet. The Malnutrition Advisory Group (Marinos, 2001) estimates that one in seven people over 65 suffer from malnutrition, with a higher percentage for those in institutionalised care. The development of 'food deserts' where certain urban areas have no, or highly limited, food retail outlets is also coming under increasing scrutiny (Wrigley et al., 2002), as a potential point for redistributed food. FareShare itself (Lowe, 2007) further suggest that 6.7 million people are affected by low income, a direct cause of food poverty.

As the discussion below explores, however, these various aims to: minimise waste in the retail food sector, provide fresh fruit and vegetables to supplement poor diets, and divert charitable funding to additional activities can come into conflict, especially where the food provided comprises 'luxury' items and/or prepared food and puddings, which act as dietary supplements, rather than fresh food.

This article follows the redistribution flow from retailers to recipients via FareShare which redistributes food donated from retailers to organisations working with homeless people and others with no or low incomes and with poor access to nutritious food. Originally based in London and associated with the homelessness charity Crisis, FareShare now operates independently and nationally through eight 'franchised' regional projects, in addition to the centrally managed London depot. From its own estimates in 2006, approximately 15,000 tonnes of such surplus food are redistributed annually to charitable institutions such as hostels, Day Centres for the elderly or the homeless; 12,000 people were given 3.3 million meals with food provided by FareShare and £5 million was saved by 250 local charities and reinvested into the community.

In the next sections, we report in detail upon FareShare's operational activities, on the basis of fieldwork conducted at two of

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