ZEROING OUT CARBON EMISSIONS BY REDUCING PERISHABLE WASTE

David Frieberg
VP Marketing
Planalytics

RETAILERS CAN RAPIDLY (AND PROFITABLY) PURSUE SUSTAINABILITY GOALS TO REDUCE FOOD WASTE BY IMPROVING DEMAND FORECASTS.

Grocers and other retail businesses are finding that layering specific predictive demand analytics onto their current demand forecasting solution can balance the need for high on-shelf availability with limiting waste in perishable categories.

Over 1/3 of food produced globally is wasted. This waste epidemic stems from massive inefficiencies across the food life cycle. Certainly, waste does happen in both homes and on the farm, but studies have identified that nearly 40% of food waste occurs within the retail supply chain.

Globally, over half a billion tons of food are wasted annually just within the retail systems of grocery stores and restaurants. This reality is a glaring problem – food waste from these sectors account for ~3% of global carbon emissions (nearly as much carbon dioxide equivalent as the entire airline and shipping industries combined) – but also a significant opportunity for companies as they pursue sustainability initiatives.

Whether motivated by the food waste epidemic, climate change, the growing desire of consumers to support sustainability-minded retailers, or the impending carbon taxes, many retailers have begun to set goals for reducing their food waste and carbon footprints.

In addition to stating goals for carbon reduction, many businesses have also begun reporting their own carbon emissions in Environmental, Social, and Governance (ESG) documents as well as other sustainability reports. This interest is mirrored with investment: multiple companies across the food and grocery sector are investing upwards of $1 billion in order to meet their ESG targets in the coming years.

SPOILED FRUIT (AND VEG, MEAT, DAIRY, ETC.) IS "LOW HANGING FRUIT" RETAILERS CAN CAPITALISE ON QUICKLY TO REDUCE CARBON FOOTPRINTS

There are various ways in which a business can reduce its emissions in order to meet its ESG goals. Initiatives such as redirecting waste to recycling plants, replacing product packaging, or investing in new refrigeration and greener transportation are just handful of the options retailers can consider. However, such undertakings often consume huge time resources, entail heavy upfront investments, and may require changes in the behaviours of employees and customers.

An alternate approach – one that can be operationalised within a couple of months and with a small upfront cost that is quickly paid back via bottom line gains – is to focus on enhancing the core existing process of inventory replenishment.

For example, in Planalytics' work with retailers, leveraging demand analytics that quantify how changes in upcoming weather conditions will either increase or decrease sales of certain fresh food products has driven waste reductions up to 35%. And, because these weather-driven demand metrics integrate directly into existing systems, these companies are effectively tackling waste and the associated carbon footprint in an scalable and repeatable way.

Taking the above approach allows retailers to proactively attack waste before it materialises. This is a highly controllable sector of sustainability for companies as their improved demand forecasts reduce waste before there is ever a need to recycle or compost. Moreover, more accurate demand planning and store-level inventory replenishment is actually a profit enhancer, not an expense. Improving demand analytics is the "low hanging fruit" of sustainability and one that unlocks new profitability without the need to change equipment, overhaul existing processes and systems, or alter ingrained habits.

Demand planning is an inexact science. Most retailers lean heavily on recent sell rates to determine how much to replenish in different regions or individual stores. While the recent sales trend is important, it is distorted by the weather conditions that have occurred and it is not factoring in how upcoming weather conditions are going to change sales volumes.

The weather and its effects on sales can change significantly from product-to-product, day-to-day and from store-to-store, and as a result, retailers often end up understocked in some locations and overstocked (resulting in waste) in others. By incorporating predictive demand analytics that measure this hidden component that directly impacts sales, retailers can initiate a preventative solution in waste management.

IMPRESSIVE SUSTAINABILITY AND FINANCIAL RESULTS

Weather-driven demand metrics that are integrated with existing ERP systems, machine learning or artificial intelligence platforms, or demand forecasting software solutions can reduce waste by an average of 12%. **This sharp decrease in waste corresponds to an average of over 4% in decreased emissions.**

Decreasing waste and emissions helps reach sustainability goals and also produces financial benefits. In addition to the lower inventory-related costs, companies in many jurisdictions can capture potential tax savings from the measurable decrease in carbon emissions.

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By improving demand forecasting accuracy, Planalytics has seen that grocers build profit margins through increased sales and lower perishable waste costs. **Typically, grocers capture an additional £1 million in EBITDA annually per £300 million in turnover.**

Utilising predictive demand analytics to adjust replenishment systems in a scalable and sustainable manner, a company will quickly achieve a meaningful reduction in waste. The decreased waste, both financially and environmentally friendly, can propel retailers toward their sustainability goals faster than any other program. As a bonus, retailers that choose this as one of their roads to sustainability will enhance profitability along the way.

DAVID FRIEBERG
dfrieberg@planalytics.com
planalytics.com

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