



SOFTENGINE WHITEPAPER SERIES

Recalls: An Inevitable Obstacle for Food and Beverage Companies

Prepare Your Business For When Disaster Strikes

A product recall is the process of retrieving and replacing defective goods for consumers. The manufacturer absorbs the cost of replacing or repairing defective products and reimbursing customers when necessary. A food recall happens when there is reason to believe that a food product may cause consumers to become sick.

The producer or seller usually initiates the recall to remove the product from the market or in some cases, government agencies such as the U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA) request food recalls. The discovery of micro-organisms that can result in illness (such as E-coli), a potential allergen or mislabeling could all be used as grounds for recalling food (4). When not addressed properly, recalls can result in tarnished brand reputations, heavy legal fees, or even bankruptcy. There are currently six organizations within the US that monitor and recall manufactured goods including the Consumer Product Safety Commission (CPSC) and Food and Drug Administration (FDA) (1).

Food and beverage manufacturers and distributors have a responsibility to produce quality products that uphold consumer safety. Contaminated or unsafe food products are some of the most threatening types of goods to consumers, sometimes making them severely ill or even resulting in death. Even with the best production planning and safe manufacturing processes, no food and beverage company is completely immune from a product recall and the resulting costs.

What is the Impact of Recalls for Midsize Food and Beverage Companies?

According to the Centers for Disease Control and Prevention (CDC), one in six (about 48 million) Americans suffer from foodborne illnesses caused by pathogens such as Salmonella, Norovirus, Listeria, and Escherichia coli (E. Coli), each year. Annually, 128,000 Americans require hospitalization and 3,000 die from foodborne illnesses, according to CDC estimates (3). Clearly, food recalls are a serious business, and the number of recalls (largely due to an increasing array of products in the marketplace) are resulting in a rising number of recalls each year. The Food and Drug Administration (FDA) recalls almost a hundred million units of food every quarter. Prepared foods are the most recalled food category, followed by baked goods, vegetables, and beverages. Furthermore, microbiological contamination is the leading reason for U.S. food recalls (47%) (4).

The rising pressure for food and beverage manufacturers to produce new and innovative products as quickly as possible and at the lowest cost has resulted in more recent recalls. 43% of Americans perceive the number of food recalls to be increasing (4). Beyond the emphasis on fast production, increases in technology and R&D mean that food manufacturers are developing brand-new products faster than ever before. The sheer volume of products in the market means the overall number of recalls is also increasing.

Small and midsize F&B businesses especially need to be prepared for food recalls. Nearly one third of product recalls are from companies with five or fewer employees (1). While large corporations have the capital and brand recognition for recovering from recall repercussions, smaller companies are at high risk of going bankrupt if they do not manage recalls optimally. Midsize manufacturers need to establish

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best practices to conduct recall quickly and efficiently, promoting customer safety and minimizing losses. Luckily, manufacturers can establish best practices for having a successful recall such as: optimizing lot and batch traceability, communicating with customer effectively, pinpointing and reducing costs, planning ahead, and reporting quickly and accurately.

Optimize Your Lot Traceability and Locate Batches Efficiently

Many midsize food and beverage companies only have internal traceability functionality, providing a one-up, one-down view for each product batch. To run a successful recall, you need to know exactly which product batch is affected, where it came from, and where the product is distributed. This chain of events requires full end-to-end visibility into each product throughout the entire supply chain.

An Enterprise Resources Planning (ERP) technology gives you full visibility into your food and beverage products, both during and after production. You have advanced lot traceability technology that allows you to maintain better inventory accuracy and ensure compliance with customers and industry requirements. Inventory batches represent a subset of inventory items that share the same properties which usually include being received on a specific date, specific costs, from a particular supplier, the location it was sourced from, expiration dates, and more. ERP allows you to locate batches of product at any point in your supply chain, including farming practices of raw ingredients, distribution paths, storage procedures, and product delivery. You can view exactly where the contaminated food came from and where it is located now. This level of visibility allows you to identify exactly which customers are affected by the recall, so you can alert them as quickly as possible and take necessary action to ensure their safety. You will also identify the exact nature of the defect and where it occurred in the production process to avoid similar situations in the future. Standardized labels can be used to scan inbound and outbound product shipments. This gives you complete information on each of your products, simplifying the recall process.



Pinpoint Costs to Minimize Losses

Beyond being an important public health issue, food recalls also incur significant economic losses. Considering lost sales, replacement costs, refunds, government sanctions, and lawsuits, a single recall can become a billion-dollar ordeal. Medical expenses, productivity losses, and the economic cost of premature deaths, pain, and suffering in the United States due to foodborne illness have been estimated at \$77.7 billion annually (3). It is estimated that salmonella alone results in an annual cost of \$3.7 billion (4). The average cost of a recall to a food company is \$10 million, and that is only accounting for direct costs (5). That figure does not even include the costs associated with litigation, governmental oversight post-incident, lost sales, and, perhaps most importantly, the impact to a company's market value and brand reputation.

The fiscal impact of a recall is especially difficult for smaller food and beverage companies and could lead to bankruptcy. For example, the Peanut Corporation of America was a small company with about 90 employees. The brand suffered immensely because of an extensive recall of almost 4,000 products using the company's ingredients. A salmonella outbreak resulted in hundreds of illnesses and about a dozen deaths between 2008 and early 2009, forcing the company to cease operations and file for bankruptcy (5). Without the established capital and brand reputation of larger companies, and without the ability to respond quickly and efficiently to the incident, the Peanut Corp could not recover from such significant losses.

ERP technology allows you to exactly match the cost of each of your product recalls. Your inventory information and accounting are automatically synced, so you have an accurate view of pricing, orders, and refunds when applicable. Statistics on recalls can be easily displayed, including actual and estimated costs associated with each recall that you can easily extract into reports. Furthermore, being able to respond as quickly

In a Harris Interactive poll, consumers indicated that 55% would switch brands temporarily following a recall. 15% said they would never purchase the recalled product and 21% would avoid purchasing any brand made by the manufacturer of the recalled product (5).

and efficiently as possible minimizing the logistical costs of a recall, prevents more customers from getting sick and ensuing lawsuits from delayed communication, and minimizes the decrease in consumer trust. In a simulation modeled on the contamination of one day's production at a ground beef processor, where product was assumed to have reached the consumer, and shelf life was set at 14 days, perfect traceability limited the mean projected loss by more than 90%. In the same simulation, with shelf life set at 28 days, the mean projected loss was limited by more than 95% (5). Traceability could be the make-or-break factor that saves a midsize food manufacturer from bankruptcy!

Meet Regulations with Rapid Reporting

To provide the necessary reporting for government regulations on your recalls, accurate reporting is essential. Organizations like the FDA and USDA need to be alerted of the food recall and your plan to execute it, and often action cannot take occur until your recall plan has been approved. Regulatory organizations also require detailed reporting around the nature of the recall and the products affected, which can be time-consuming without automated reporting and easy access to product data.

An ERP system hosts end-to-end supply chain information on each of your products, starting from raw ingredient sourcing and farming practices, food processing, delivery, and field-tracking. Being able to produce this level of reporting on each of your food and beverage product batches on the fly makes it easier for regulators to approve your recall plan as soon as possible, so you can act quickly and mitigate losses.



