Adulterous Affairs

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Food adulteration is to high prices as pests are to grain. The abundance of one engenders the abundance of the other.

In the course of my career, I have had to confront honey adulterated with high-fructose corn syrup, vanillin-adulterated vanilla, counterfeit fish and wines, and kangaroo-extended hamburger—does anyone else remember the Australian bumper sticker, "Eat roo meat, 250 million Americans can't be wrong!"? Every society harbors a larcenous element that recognizes that there is profit to be made from shorting customers. Food adulteration probably qualifies among humankind's earliest professions.

Catching food adulterers is a never-ending quest and, unfortunately, "success" usually happens after the damage is done. For food companies, there's no better way to destroy a corporate brand than to be caught adulterating food products, no matter where it happened to occur in the supply chain.

Of course, the flip side is that there is no better way to create brand vitality than to guarantee food quality and purity. The H.J. Heinz Company was founded in the 1860s when young Henry J. Heinz had the brainstorm to sell his horseradish condiment in clear glass bottles so that consumers could clearly see that it was free of the adulterants and contaminants that were the norm rather than the exception in nineteenth century America. Henry J. Heinz had discovered the intrinsic brand value of food quality…and look where it got him!

So how does one catch adulterers? It is simply not practical to sample every lot and batch of incoming ingredients for anything and everything. An unfortunate limitation of food analysis checks is that they usually work well only if you know where and what for to look. One can put protocols and procedures in place, but nobody can guarantee what happens when inspectors avert their gaze. Once a pattern of adulteration is established (e.g., corn sweeteners in fruit juice), science can develop detection tools, but carbon dating, water isotope analysis, and DNA analyses simply aren't practical on a day-to-day, batch-by-batch basis.

One of the most rewarding classes of my MBA studies was a financial spreadsheet analysis course taught by a consultant to the Chicago banking industry. His specialty was to educate young, naïve bankers and accountants on how to detect corporate fraud. The course consisted of true-to-life spreadsheets of corporate financial reports (with names omitted to protect the identities of the victims and perpetrators) in which we were tasked to detect what was wrong.

Step 1: The first step was to ask ourselves what and where were the most likely incentives to cheat? In food terms, if an ingredient is valued for its protein, then look to protein content. A food supply confronting rising prices resulting from the limited availability of raw materials provides plenty of incentives to cheat. A good starting point might be those commodities that are higher priced and tightening in supply—milk powder, honey, beef, corn meal, etc.

Step 2: Put controls (i.e., screens) in place to detect anomalies. Keep those controls confidential from your suppliers. Such controls do not have to be overly complicated. In our case, we learned to statistically manipulate the spreadsheet numbers to accentuate discrepancies. A food analysis and safety expert I know explained that she had a simple test whereby to determine a specific ingredient's national origin and purity—by its color in a water solution.

Step 3: Every identified anomaly demands a well-documented explanation. This involved a lot of scenario analysis by our classroom teams to develop credible narratives. Out of this process developed a list of requested documentation to the loan applicant (i.e., ingredient supplier).

The most valuable benefit of that class, however, was to train suspicious minds. For most people, this does not come naturally.

Nothing should be accepted at face value. It is fine to accept that a supplier is AIB, ISO, or FPA-SAFE certified, but independent auditor certifications are hardly foolproof. Screening protocols should be redundant, randomized, and difficult to anticipate. Recognize that most anomalies have perfectly innocent explanations once you peel back the layers of false perceptions, wrong assumptions, and miscommunications. But some do not.

Frankly, I don't know if food science programs today train suspicious minds. As I recollect, my own education emphasized a rather utopian faith in the industry and its regulatory institutions.

A number of indicators, including competition for food resources by the bioethanol industry, suggest that our cereal foods industry is about to enter an extended period of tightening supplies and high ingredient prices. As Henry J. Heinz illustrated, the guarantee of food purity, quality, and safety is intrinsic to our food industry's brand value. What is at stake is the brand equity of companies, the industry, and, even, countries of origin. So, stay vigilant.

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