



Pricing product quality

Product safety gets highlighted when the health potential is affected. While the inspection systems are undoubtedly faulty and could be improved, at some juncture, the responsibility must rest with the consumer...

CNN's Lou Dobbs, among many other print and media commentators, has mentioned that the government has been remiss in protecting the consumer from products manufactured globally, resulting in illness and even death. While the inspection systems are undoubtedly faulty and could be improved, at some juncture, the responsibility must rest with the consumer.

Instead of blithely assuming all products are safe and manufactured to an equal standard, the consumers must recognise that the omnipresent availability of low cost goods has a price: lower quality and less safety. While these phrases sound problematic, there is an increasing willingness to accept both aspects of cheaply priced goods.

A sweatshirt that retails for less than \$12 in the U.S. may last just as long as a high end one selling for ten times that amount; and if not, at \$12, many consumers simply discard the item because the low investment makes most commoditised items quite disposable.

Product safety matters to most consumers when the health potential is impacted. If children get sick, as has been reported widely regarding lead paint in toys, near hysteria and panic ensues and the media exposes the supposed horrors of global manufacturing. News media outlets, particularly those in the mass media, need ratings to generate maximum advertising revenue but television programmes about how children are being poisoned or killed from negligent safety standards grabs ratings.

No one is suggesting that toys should hurt or kill children; product safety standards are needed and important; is the consumer really willing to pay the extra product costs to ensure safe and quality goods? At what point is the consumer responsible for what they



buy? Is this media cry a set-up for a series of class-action lawsuits that will serve to weaken the manufacturing base even more significantly?

The price of milk...the price of safe milk

Consumers at every grocery store, including Super Walmart, are decrying the near \$5 commanded for a gallon of milk. Part of that cost is the result of the BioTerrorism Act which mandates specific lot traceability; if there is a problem with the quality of milk, there are technology solutions that allow the dairy producers, packagers, and distribution companies to trace precisely when and where that gallon of milk came from, thus mitigating the widespread danger to the communities at large. This is a good thing and it comes with a price. Small firms that use dairy products in food production must purchase Enterprise Resource Planning (ERP) systems that are able to comply with the required regulatory compliance statutes. The acquisition costs of these technology solutions, while highly effective, must be passed along to the consumer.

The price of safety

After 9/11, airports began various new screening procedures and passed along special fees to the air travelers to cover the cost of the safety screening. Although annoying, even silly at times, most air travelers accept this is part of the cost of a post-9/11 world. In the effort to avoid future terrorism there is a willingness to pay more. When it comes to product safety, there is a much greater sensitivity on the part of the consumer. More than two-thirds of the American public (76%) in a national survey conducted in December 2007 said that they expect the government to take the needed precautions to ensure that products they consume are safe. The same respondents said they were not willing to pay more than the current price of products to have added safety and security. Safety is not free; there is a price and it is not the government,

Safety is not free; there is a price and it is not the government, but the manufacturing companies that carry the cost of safety monitoring systems

but rather the manufacturing companies (already operating on very thin margins) that carry the cost of safety monitoring systems.

It's not as simple as demanding safety

Fruit and vegetable growers, for example, face a tremendously complex challenge because ingredients come out of the ground and can have various characteristics (an orange picked in June may have different characteristics than an orange picked in August), while customers require the finished product to be consistent and safe. To manage variable characteristics of lots, ERP solutions must track lot of attributes; few offer this capability. Typically fruit and vegetable attributes are captured such as Brix/%solids, pH/acidity, and other similar characteristics. When a lot is issued to a production batch, systems are expected to calculate the expected chemistry of the finished product and compare it to the specifications defined for the finished goods. If the batch is out of the required specifications, the system warns the production manager.

In the citrus industry, most juicers do not purchase pounds, gallons or tons of fruit; they purchase "pound solids." Essentially juicers are purchasing the sugar that is

in the fruit, not the water content. Sometimes a trailer of oranges can be 5,000 pound solids; sometime the same volume can be 4,000 pound solids if the fruit has more water and less sugar. The difficulty is they will issue the fruit into a batch by weight or volume; the relationship from pound solids to weight or volume is not a linear relationship – therefore the technology solution must have the capacity to facilitate multiple, non-related units of measure on a lot basis.

According to Evan Garber, President of Escape Velocity Systems, a formula-based ERP system, "Many times a customer will have specifications for a juice that is different than the company's specification for the product... the company manufacturers orange juice with between 30-40 per cent solids, a client may require that the orange juice that they get be 37-40 per cent solids. ERP solutions must allow a fruit beverage company to manufacture to the company's specification, the customer's specification or when picking for a sales order, perform a "best-fit" of existing products to meet the customer's requirement."

Sometimes fruit and vegetable manufacturers purchase from growers. The accounting process is often complex and must produce settlement sheets (based on when finished goods made by the material purchased is actually sold), including charge backs and commissions. Additionally, the technology solution must be able to keep vendor-specific information about purchased items, such as whether they use pesticides, fertilisers, acreage, and other pertinent data.

The usual quality control and food safety issues apply to fruit and vegetable beverage with some additional concerns. Some of the hazard analysis critical control points (HACCP) are for sterilising the fruit upon receipt (such as bleach concentration, temperature on the pasteuriser, and metal detection on the finished goods.)

Fruit and vegetable beverage manufacturers deal with allergens. Tracking of allergen is important as well as colour/product scheduling issues. Production scheduling must optimise a production schedule based on attributes of the formula; apple products should be run before blueberry products, non-allergens before allergens. The ERP functionality must capture the cost-saving benefit of minimising changeover time.

Some juice manufacturers make Kosher and Halal beverage products. Garber suggested, "Any technology

solution must indicate whether a formula is Kosher or Halal...the formulations are typically reviewed as well as historical production to verify that Kosher or Halal products have been used. The ability to print and view all formulas and ingredients that have a designation is vital and must be true of historical production batches."

Other ERP functionality for these two designations include the requirement of "source of ingredients" because of the direct relationship to lot tracking of raw materials from procurement through production to finished goods. The requirement of "status of production equipment" relates to machines that only run kosher or halal items (given the cleaning specification of both food designations). Garber noted, "Production planning (finite capacity) rules can be set to state that a section of formulas are only run on certain machines. If a planner tries to run on another line, the schedule board will prohibit it from moving. Production history can be updated for the machine indicating that a batch was actually run and received the required verification that batches were run on proper equipment. Indicators that the needed blessing has been made to a particular batch, item, or lot can be indicated."

Supporting safety checks

Whole Foods and other premium grocery outlets are keenly aware that there are plenty of consumers willing to pay more for food that is certified "organic" as well as kosher and halal. Indeed as the reports of tainted food becomes more prevalent, many consumers are becoming more aware of their role and responsibility in purchasing products that undergo the kind of rigorous safety processes that make them feel safe and keep their families healthy.

There is no magic wand to fix the product quality issue; the panacea does not exist. Government intervention will continue, however, the ultimate responsibility ALWAYS rests with the consumer. Any consumer who questions, doubts, or simply feels uncomfortable about the manufacturing and safety practices of a company has the ultimate power: chose the competition. Money talks and buyer beware. **2.0**

Thomas R Cutler is the President & CEO of Fort Lauderdale
Florida-based TR Cutler, Inc