

Business Roundtable
Institute for Corporate Ethics

BRI-1003A

**Considering Profits and
Principles in Technology
Adoption Decisions (A)**

Keely Byrne and Jim Detert

CONSIDERING PROFITS AND PRINCIPLES IN TECHNOLOGY ADOPTION DECISIONS (A)

You are the chief executive of a privately held outdoor clothing company that grossed approximately \$200 million in sales last year. The company is well established in the high end of the industry, with a reputation for designing some of the most innovative products on the market. The company is also known for the intensity of its commitment to the environment. In addition to granting considerable funds to a variety of conservation programs, management pays close attention to the environmental impact of company products and operations. The company has developed some of the most environmentally innovative products available, and environmental issues related to new or existing products are seriously considered during the selection of products to be offered in future seasons.

Ten years ago your management team decided that it wanted to thoroughly examine the environmental impact of the fabrics used in company products. A consultant was hired to perform a life cycle assessment of the major fabrics used in the company's product line, and the environmental costs and benefits of the fabrics were identified during each stage of their lives – from development and raw materials extraction to disposal.ⁱ The assessment process brought to your attention many significant environmental issues, including the use of a potentially harmful chemical used to kill odor-causing bacteria in one of the fabrics used heavily in your product line. When government officials and medical professionals expressed concern about the environmental and health impacts of this chemical, you felt compelled to remove it from company fabric. The product that included this treatment constituted 15 percent of your total sales, and other clothing companies were emphasizing the use of the same odor-fighting technology in their competing products. The market for garments that included anti-odor technology was growing and there was no viable alternative to the current treatment, but still you asked your fabric supplier to stop using the questionable chemical in the fabric you purchased.

The following year a new odor-fighting technology became available. This technology used a different anti-bacterial agent that was widely perceived as a safer alternative to the original, although it too had significant environmental and health issues. Again, you decided not to use the new technology in your product line despite increasing market pressure to offer products with anti-odor properties.

At this point your fabric supplier began working on an alternative to the new technology that utilized the same new agent but addressed the environmental problems associated with it. After a year the supplier had developed a viable and effective technology that virtually eliminated the most serious environmental impact of the chemical – the toxic wastewater generated during manufacturing. You did not officially commit to purchasing the final product at this point, but you did not express any misgivings. Historically your company and the supplier had worked as informal partners when developing new products; your company would provide input on the innovations it most needed, the supplier would design the product, and the company would buy the product under a temporary exclusivity agreement when it was launched. Based on the partnership you shared, the supplier perceived your company's attitude as unspoken support and expected you to purchase the final product; consequently it proceeded with testing.

Now testing is nearly finished and the company must decide whether to commit to purchasing fabric that includes the supplier's new technology. You therefore ask key functional departments to give opinions on whether the company should move ahead with the product.

The company's Environmental Assessment Department provides an equivocal report, noting its continued concerns. While the most severe environmental issue has been addressed, little is known about the long-term environmental problems and health issues that may be caused by the chemical. It has been effectively removed from wastewater generated during the manufacturing process, but wastewater will also be generated when customers launder the garments repeatedly. Small amounts of the chemical will wash off garments during cleaning, flowing to local wastewater treatment plants or waterways; the impact the chemical may have on these man-made and natural systems is uncertain. Currently the company is particularly supportive of river and stream preservation in its well-publicized environmental grant giving programs, and even relatively minor pollution caused by your product could be seen as hypocrisy in the eyes of both customers and employees. The Environmental Assessment Department also points to public health concerns involving the chemical; it is an important anti-microbial and some medical professionals fear that over-use may accelerate the evolution of resistant bacteria before an adequate alternative can be developed.¹ However, minimal research exists to support either of these threats, and the new technology includes only small amounts of the chemical.

The Marketing Department emphasizes the following and urges you to commit to the technology: Including an anti-odor treatment in your product line will eliminate a clear weakness in the company's marketing campaign, as you will be able to match the claims of competitors regarding the odor-fighting properties of your products. Though it is difficult to

¹ Bacterial resistance develops when an anti-bacterial agent is not completely effective. If the agent is used heavily, all bacteria are gradually killed except for those with mutations that cause immunity. As these mutant bacteria become the only living specimens, they multiply to create a full-size population of bacteria resistant to the agent. At this point scientists must search for a new anti-bacterial agent that can kill the resistant bacteria.

quantify the risk of non-adoption, the department estimates that the company risks one to two percent of its market share in this product by offering no anti-odor treatment.

The Purchasing Department immediately gives its approval as well. The supplier has developed the technology with the understanding that you would purchase it, and backing out could damage an important business relationship.

Finally, the departments in favor of adopting the new technology point out that the chemical's environmental impact is a dramatic improvement over any of the other anti-odor technologies in the market, and continued research may lead to further improvements. As one employee remarked, "If we continually make decisions that sacrifice company profits for the sake of the environment, eventually there will be no company left to carry out an environmental mission."

Should you purchase fabric with the new technology? Clearly identify the costs and benefits you see with buying the new technology and with rejecting it. Describe the course of action you would take and why.

Endnote

ⁱ Epstein, Marc J. "You've got a great environmental strategy—now what?" *Business Horizons*. 1996. 39:5. 53-59