

The Sustainability Penalty

Why Sustainable Products are Sometimes Considered Inferior, and How Managers can Correct for this Problem

Michael Luchs, Rebecca Naylor, [Julie Irwin](#) and [Rajagopal Raghunathan](#)



Professors Julie Irwin
and Raj Raghunathan

Note: This work is a summary of a manuscript soon to be published in the [Journal of Marketing](#)

After years on the sidelines, sustainability seems poised to become a significant market trend. The United Nations Environment Programme, for example, notes a “growing consumer demand for sustainable products” ([UNEP 2005](#), p. 3). Over the past few years, mainstream media has taken note as well, with stories about “ethical consumers” (meaning consumers who intentionally purchase products and services that they consider to be made ethically—typically, those with minimal harm to, or exploitation of, humans, animals and/or the natural environment) and terms such as “green” and “sustainable” (a term commonly used to refer to environmental and/or social product ethicality) appearing regularly in such popular press outlets as [BusinessWeek](#), [Time](#), and [The Wall Street Journal](#). Given this evolving consumer trend, suppliers and retailers are responding with a variety of initiatives. Leading consumer goods companies including Clorox, L’Oreal, Colgate-Palmolive, Coke, and Unilever have been busy acquiring successful (but traditionally smaller) producers of sustainable products such as Tom’s of Maine and Burt’s Bees (Porges 2007). These companies are also exploiting their market position and resources with new introductions (e.g., Clorox, with “Green Works™,” its new line of household cleaners; Story 2008). Large retailers like Walmart are also responding with comprehensive sustainability initiatives (Gunther 2006).

Despite the widespread attention that sustainability and ethical consumerism is receiving, however, sales of sustainable products (i.e., those with a beneficial social and/or environmental impact) still represent “only a small fraction of overall demand” ([UNEP 2005](#), p. 3), and there appears to be a significant gap between consumers’ explicit attitudes about these products and their consumption behavior. For example, one study suggests that while 40 percent of consumers say they are willing to buy “green products,” only four percent actually do so ([UNEP 2005](#), p. 15).

What accounts for this discrepancy between what people say and what they do? We conducted a series of controlled laboratory experiments, as well as a field study, to shed light on this issue.

Several insights emerged from our studies. First, we found that the typical American consumer tends to associate ethically superior products with lower strength but higher gentleness. We found this result both when we explicitly asked consumers to list a set of benefits that they expect from sustainable products, and also when we measured people’s implicit associations (i.e., associations that people may not be aware that they have) between product ethicality and strength versus gentleness. These results suggested to us that, in product categories in which consumers seek strength-related benefits

(such as cleaning power in the case of laundry detergents and durability in the case of car tires), we should find that consumers will levy a “sustainability penalty,” i.e. we expected they would disfavor more sustainable products because they would expect such products to be less strong. In product categories in which gentleness is more important than strength (e.g., baby shampoo), we expected to find that there is no sustainability penalty and sustainable products are preferred.



To test this thesis, we identified two products, car shampoo and baby shampoo, that, while similar along many dimensions, differ in terms of the extent to which people seek strength- vs. gentleness-related benefits from them (strength being more important for car shampoo and gentleness being more important for baby shampoo). If our thesis was correct, sustainability would decrease preference for car shampoo but not for baby shampoo. Indeed, this is what we found.

Further evidence of a “sustainability penalty” was obtained in two other studies. In one, two t-shirts were placed in front of participants, one of which was purportedly washed using an ethically average detergent (Purex), while the other was purportedly washed using an ethically superior one (Seventh Generation). In reality, both t-shirts were actually washed using a third detergent. Consistent with our thesis, a strong preference for the less (vs. more) sustainable brand (Purex) emerged. In the second study, a field study, two versions of hand-sanitizers were placed on a table near one of the entrances to the business school building. One of the hand-sanitizers was portrayed as a more eco-friendly option than the other and right/left-hand placement was randomized. Participants choice of, and volume of use of, the two hand-sanitizers were observed and measured. Again, consistent with our thesis, participants preferred the less sustainable option.

Thus, across these studies, we obtain clear and strong evidence that consumers do levy the “sustainability penalty” in product categories where strength is more important than gentleness. What might managers do to overcome this penalty?

One possibility is to simply acknowledge the potential discomfort consumers may have and to explicitly state that sustainable products are strong. For instance, marketers of eco-friendly tires (tires manufactured using recycled materials) may explicitly state that the tires are “strong” and “durable”.



We sought to test the success of such a strategy in our final experiment. Participants evaluated four tires, that differed on two attributes: (1) the material from which they were made, specifically:

“All car tires are made from oil and rubber. Traditionally, car tires have been made using methods and materials that are not very sustainable. There are car tires on the market today, termed ‘eco-tires,’ that are made using sustainable methods and materials, such as using recycled rubber (recycled from a number of sources) and alternative plant-derived ingredients.”

and (2) the guarantee that the manufacturer of the car tires makes to consumers, specifically: “guaranteed STRONG” or “guaranteed AVAILABLE IN YOUR AREA.”

Thus, the four tires were: eco-friendly and guaranteed strong sustainable, eco-friendly and guaranteed available, regular (i.e., not eco-friendly) and guaranteed strong and regular and guaranteed available.

Results from the study revealed that the strategy of guaranteeing strength worked: specifically, the “sustainability penalty” was levied against the eco-friendly tire when it was guaranteed available, but

not when it was guaranteed strong. In other words, the strength guarantee reassured consumers that their expectations of a less strong eco-friendly tire were not necessary.

Conclusion

Although issues such as global warming and resource usage present real threats that society must confront, they also present significant opportunities for marketers and entrepreneurs. Companies that successfully respond to these threats by developing and promoting products that appeal to consumers' environmental values can benefit society while fulfilling company objectives for sustainable, profitable growth.

With these evolving opportunities, however, come real challenges. The goal of our research was to demonstrate that sustainability, though appealing as a virtue on its own, can sometimes be a liability with respect to consumer preferences. By identifying the source of this liability, our research provides some guidance for companies who choose either to include ethical attributes in new products or to capitalize on existing products with positive ethical attributes.

For product categories in which strength-related attributes are valued, companies promoting ethically superior products may need to pay special attention to countering the association between superior ethicality and lower product strength. This can be accomplished by manipulating the traditional marketing mix elements, including claims made in promotions, on packaging, etc. In addition, companies interested in producing sustainable products in categories where strength is valued may also consider co-branding with brands already associated with strength in the consumer's mind. The relatively recent introduction of Clorox's Green Works™ is an excellent example of this type of branding strategy being used to introduce a new, more ethical-consumer-focused product line. This line of household cleaning supplies promotes an environmentally responsible image while reassuring consumers through use of a brand name that many consumers already associate with strength.

In addition, given our finding that consumers judge sustainable products to have superior performance in terms of gentleness-related attributes (e.g., safety, healthfulness), marketers should consider pursuing brand and product line expansion strategies that benefit the most from association with these product attributes. In fact, some brands already appear to take advantage of the gentleness-sustainable relationship. Burt's Bees, acquired in 2007 by Colgate for almost a billion dollars, specializes in personal care products, including children's products and products for pregnant women. Their product line emphasizes gentleness as well as sustainability and has proven to be quite successful.



Our research also has direct implications for the particular issue of energy consumption. Many of the products that would decrease energy consumption, such as CFL lightbulbs, energy star appliances, and locally made products, are marketed using the "sustainable" label. And, indeed, the less energy we all use, the better it is for the environment and for future generations. However, our findings hint that consumers might be reluctant to shift to energy saving devices and products used producing less energy because they may believe that such products to be less "strong". For instance, they may perceive the same bulb to be less bright if it is labeled energy efficient or an energy star dishwasher as less effective in cleaning dishes. Our findings help illuminate why these products might not sell as well as would be expected (given positive consumer attitude) and also help suggest ways to increase sales of these and other sustainable products.