The color of money—*three ways consumer research can maximize ROI while supporting your environmental mission*

The development of a green economy requires end-to-end sustainability solutions. Your company may have begun its environmental mission by cleaning up operations, but it isn't finished until you've addressed inefficiencies at retail. This article explores a few of the many ways consumer research can help you close the loop.

Public appreciation of the environmental impacts of consumption has grown steadily over the decades, and in recent years has reached the point where manufacturers, retailers, and everyone in between must either respond or lose significant competitive advantages. Alongside the development of federal regulations, two forces have emerged to shape the evolution of business: First, consumers (or shoppers—we'll make no distinction here) have persistently expressed their desires for more environmentally responsible manufacturing, distribution, and products, and these voices have gained volume as the consequences of the excesses of the past have gained visibility. In response, companies have cleaned up their operations, and focused significant marketing and merchandising resources on capturing the green consumer's attention. At the same time, the bottom-line benefits of environmentally-friendly business practices—in terms of reduced waste and increased efficiency—have become apparent. Companies therefore have opportunities to capitalize on two major competitive challenges as the green revolution in consumer attitudes and behavior gains momentum: operational efficiencies, and sales opportunities.

The first of these challenges is being met aggressively by many companies, but there's plenty of catching up to do with respect to the second. When companies think about going green, they tend to concentrate their efforts on the big questions on the infrastructure, operations, and engineering side of the equation, that is, the 'back end' of their business. Companies correctly understand that this is where the greatest environmental benefits—as well as cost savings—are to be found. They ask questions like "How can we design a package that uses less material?" or "How can we build an environmentally friendly manufacturing facility?" These are excellent goals, but as the green economy matures, it becomes more and more necessary to filter this thinking through the entire enterprise, all the way down to the 'front end' of the business, where selling takes place. The purposes of green thinking at the interface of retailers, products and consumers are manifold. This article presents three key ways in which the quantitative and qualitative analysis of consumer behaviors, attitudes, and perceptions can reap substantial dividends in furthering both the bottom line and the environmental mission of every company that sells a product or service to the public: 1) making sure your green messaging connects, 2) speeding adoption of your environmentally-friendly products, and 3) eliminating waste in marketing and merchandising.

1. Connecting with the green consumer.

Making shoppers aware of your efforts to 'go green' is more nuanced than simply slapping a label on your product and expecting consumers to notice (or believe) it. Companies that have made a deliberate effort to either satisfy or actively woo the environmentally-savvy shopper are acutely aware of the difficulties in effectively reaching this rapidly expanding demographic at point-of-purchase. For example, Shelton Group's widely publicized Eco Pulse survey showed that consumers expressing a desire to buy green products have a poor understanding of what makes either a product or a company better for the environment than its competitors. Further, they note that shoppers are suspicious of corporate motives behind 'green' marketing and merchandising messages.

If your company has an environmental mission covering either operations or products, and you want your efforts to positively impact consumer sentiment and sales, you must determine objectively what does and does not work to convey your green message to consumers. It's tempting to counter green shoppers' apparent difficulties in locating and correctly understanding your environmental message by focusing a large portion of your product's labeling and other messaging on this topic. However, overdoing your green messaging can turn off many consumers by conveying that the functionality of your product comes second to its greenness. Examples of this truth can be found everywhere, from early hybrid cars to environmentally-friendly cleaning products. Presenting effective messages while striking the appropriate balance between product function and environmental responsibility is where research comes in. To ensure that you are effectively conveying your intended message to consumers, you must either have a creative team with preternatural intuition, or you must answer these questions objectively:

Where do consumers look?
What are they looking for?
What do they notice?
What succeeds in affecting their purchasing behavior?
How much is too much?

These are standard messaging problems, which can be answered conclusively only by the analysis of empirical data detailing how customers interact with, learn about, and perceive your messaging and your products in natural settings. A comprehensive discussion of the various methodologies commonly applied to these problems is beyond the scope of this article; suffice it to say that a wide range of consumer research firms exist to solve exactly these types of problems.

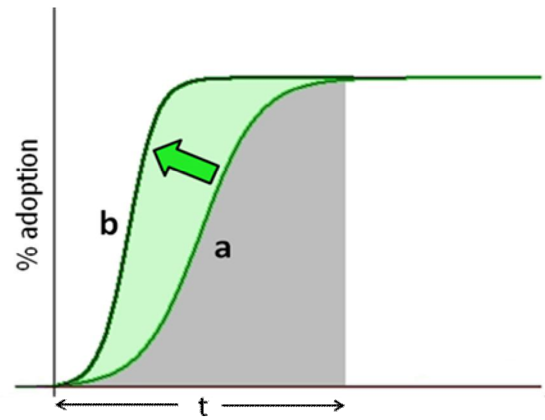
Shoppers examining products during a videographic study. Knowing precisely where consumers look, and what information they're looking for, is critical to creating effective messaging.

2. Green ergonomics.

The future holds thousands of products that are direct replacements for existing products but offer significant environmental advantages. There is no reason why the adoption curve of a green replacement product shouldn't follow the ideal adoption curve, where adoption rises in lockstep with production and availability in the marketplace. However, to achieve this ideal, products must be designed, marketed and merchandised in a manner which makes the replacement cycle seamless for consumers. Unfortunately, there are as many opportunities to get it wrong along the way as there were for the original product.

The process of product design has always involved a productive tension between engineers and designers: Engineers set out to design the optimal product to suit the need, and designers attempt to style this masterpiece of functionality into an attractive package that will inspire the consumer to buy it. At times, though, a product may either be so compelling as a piece of design, or so functional as a piece of engineering, that the other half of the equation is more or less forgotten, and either the engineers or the designers sign off on the other's work without providing sufficient input of their own. Brand, merchandising, and product managers are the final front in the evaluation of whether and how well the final product represents the brand and meets consumer needs and expectations, and competent research is critical to this process.

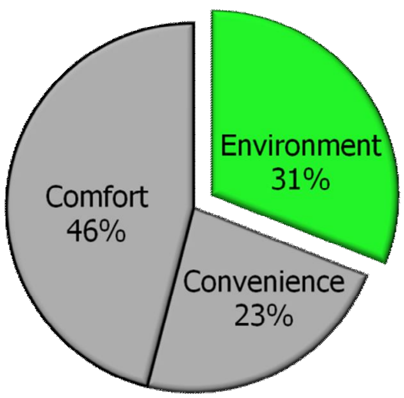
This scenario played out famously in the field of green product design with the recent introduction of the cuboid milk jug to Walmart and Costco stores. This new container is able to store more milk in less space, with enough increase in operational efficiencies to allow as much as a $0.20 per gallon reduction in retail milk prices. Surprisingly, consumers were reticent—not just because it was unfamiliar, but because it was difficult to pour without making a mess. Consumers were *crying over spilled milk*. The problem was so pervasive in fact, that retailers stocking this new 'wonder jug' were forced to expend valuable resources and floor space holding in-store demonstrations on how to pour milk!



Changes in the *rate* of product or message adoption create dramatic changes in cumulative sales during the adoption or product replacement cycle. Consider these two adoption curves: the area under *a* (sluggish adoption) is equal to 1, while the area under *b* (enthusiastic adoption, at exactly twice the rate of *a*) over the same time period is equal to 1.5. Quality research can accelerate the adoption rate and maximize the environmental benefit of your green products.

Now, it may be true that in this case, the product innovation is guaranteed a certain level of success. The economies of scale it engenders and in which it is entrenched, combined with the fact that milk is a staple product, guarantee that most—if not all—shoppers will *eventually* accept this new form factor. But many will accept it only grudgingly (diminishing their regard for the store, supply chain, and brand which forced it upon them), and a certain percentage of shoppers may try the new jug but ultimately insist on buying their milk in its old, familiar packaging, even if that means shopping elsewhere. That percentage represents lost business that could have been saved through the use of rapid, cost-effective prototype assessment. Even if such a product eventually reaches 100% acceptance, the revenue lost due to sluggish rather than enthusiastic adoption can be quite significant.

The Shelton Group survey, which found that only 13% of consumers felt companies adopting environmentally-friendly practices were genuinely concerned about the environment, also found that when consumers were given a choice between their comfort, their convenience, or the environment, only 31% chose the environment. Our own research suggests that the behavioral realities are bleaker than survey results indicate, as consumers are often paint a prettier picture of their own behavior in survey responses than is observed in side-by-side videographic studies.



When asked to choose between their comfort, their convenience, or the environment, consumer responses showed that a product is only as good for the environment and your company as it is comfortable and convenient for your customers to use. Market share and corresponding environmental benefits hinge on this green ergonomic challenge.

What this means is that *an environmentally-friendly product is only as good for both the environment and the company producing it as it is comfortable and convenient for consumers to use*. Simply by exposing prototypes to a group of real-world consumers, under real-world conditions, and examining the details of the way the product worked (or didn't work) in real consumers' hands, the manufacturer of this new milk jug could have discovered the basic design problem and fixed it prior to roll-out. Had they invested in high-quality observational research, they could have insured themselves against slow adoption in the marketplace and maintained the goodwill of shoppers for both themselves and their retail outlets. The bottom line: "Green" products that don't immediately satisfy the expectations and ergonomic demands of shoppers fail to achieve wide or rapid adoption, and so fail to realize their environmental and sales potential.

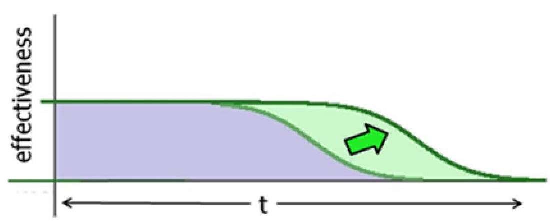
3. Waste not, want not: Efficiency through effectiveness in marketing and merchandising.

Going green isn't just about reusing, recycling, or switching to sustainable materials. In fact, the first of The Three R's is "reduce." Of course, few companies find compelling reasons to reduce the number of messages they make available to consumers, but every company has a strong motivation to *reduce waste*—that terrible thing that happens whenever marketing and merchandising efforts fail to affect your target consumers for any reason. Marketing and merchandising elements can escape the consumer's notice, fail to convey the right message when they are noticed, or simply fail to survive through their intended life-cycles. Rolling out a marketing or merchandising element that doesn't reach the consumer, doesn't work as intended when it does reach the consumer, or simply can't stand up to the rigors of exposure to the real world long enough to reach your consumers, isn't just a waste of time, effort, and marketing dollars—it's also a waste of materials and a burden on the environment. Oftentimes this amounts to many thousands of pounds of toxic materials that end up in landfills without having accomplished anything worthwhile (not to mention the thousands of expensive and polluting watt-hours of energy necessary to produce these materials in the first place).

We recently conducted two studies of merchandising efforts that resulted in significant cost savings as well as dramatic reductions in the amount of waste that would have to be disposed of at the end of the materials' life cycles. The first involved the evaluation of prototype dynamic digital signage for a specialized retail shoppe within a mass retailer, which had decided to use this effective and increasingly popular technology to attract customers from the main retail space into the shoppe. The client had developed dynamic content for three-screen displays, intending to use three large plasma screens at each location, and asked us to help them evaluate this strategy's effectiveness. In addition to conducting hundreds of brief intercept interviews, we installed video cameras in eight stores, and analyzed the behaviors of more than 60,000 shoppers, noting the details of who viewed what, for how long, and the detailed product and employee interactions of the consumers who entered the shoppe. Our study used a controlled experimental design in which some stores had three-screen displays, some had single-screen displays, and control locations had static displays. A comprehensive quantitative analysis, including *comparisons of consumer self-reports with actual recorded behaviors at each test location* objectively demonstrated that the three-screen display was overkill—it wasn't driving a significant gain in eyes or dollars captured when compared to the single screen display, which was quite effective on its own. Nor was the three-screen display driving significant additional improvements in consumers' awareness, perceptions or attitudes. The client realized that while more screens drove up consumer awareness and perceptions of quality, they also drove down perceptions of value—a critical metric for this client—due to the perceived cost of the displays. Our results showed that they were able to obtain *more than half of the intended positive behavioral and attitudinal effects, and less than half of the negative attitudinal effect using only one third of the materials,* while balancing value and quality perceptions. Multiply the price of two large plasma screens as well as their shipping, installation, and other associated costs by the nearly one thousand stores into which this signage was intended to be installed, and the ROI is evident. Now consider the environmental costs of manufacturing, transporting, and eventually reducing to landfill nearly two thousand heavy, toxic plasma screens, and the benefit is staggering.

Average percentages of consumers under each test condition reporting that our client provided the "Highest Quality" products and services and offered the "Best Value for Money." Dynamic digital signage can improve consumer perceptions of product or service quality, but overdoing it can also degrade perceptions of value-for-money. Our client found their ideal balance between quality and value attitudinal effects at single-screen test locations.

In another project, a service-based company had decided to overhaul their entire interior merchandising plan, including the installation of DDS as well as an elaborate series of static signs and merchandising displays. Our job was to study consumers at prototype locations, to see what they did and did not notice, attend to, and act on, and to provide advice on the placement and effectiveness of each of new signage element. The plan included an expensive activated fixture, designed to capture the attention of passersby with a sort of mechanical appendage which rocked back and forth and made noises whenever its motion-sensor was activated. It captured attention alright—mainly from young children, who, with nothing else to do while their parents waited to be served, poked and prodded at the display's moving parts until they fell apart, within days of installation. This expensive, elaborate selling device, intended to survive on the floor for years, was reduced to storeroom space-filler almost overnight. Thanks to a prudent investment in research, the client, who was evaluating merchandising elements that could have wound up in thousands of their retail locations, saved significant material and financial resources simply by dropping this *de facto* ineffective display.



Marketing and merchandising efforts are typically effective for a limited time. Research can extend your investments' life-cycles and reduce their environmental impacts by discovering fragile display elements, identifying trend-limited messaging and displays that have great "wow" factor up-front but quickly lose consumers' attention, and by making your messaging less vulnerable to the arrival of competition.

If your company has gone to the trouble of implementing an environmental mission, the benefits you've experienced by revamping your back-end operations are probably significant. Congratulations: you've done the hard work. The next problems you need to tackle are getting the word out, making sure your solutions are adopted by consumers, and optimizing your marketing and merchandising efforts. Research helps you close the loop, by going beyond the ecological and economic benefits of efficient design and production, and giving you the tools to ensure that your environmental mission pays off at the cash/wrap.

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Abstract:

The development of a green economy implies that end-to-end sustainability solutions must eventually find their place in every company. Not only is regulation on its way, but consumers have increasingly demanded greener products and environmentally-responsible corporate behavior. Companies that meet these challenges aggressively will not only have a competitive advantage in the marketplace, they will also find it easier to meet regulatory requirements, as well derive significant benefits from increased ROI due to improvements in operational efficiencies. Companies have already begun their environmental missions by cleaning up manufacturing and distribution, but the green revolution won't be over until they've addressed inefficiencies at retail and provided green products that consumers can enthusiastically adopt as direct replacements for old, familiar items. This article explores a few of the many ways consumer research can help companies finish the job while improving their bottom lines, by addressing specific consumer needs, requests, and expectations, as well as improving efficiencies in marketing and merchandising.

In addressing this topic, we cover three specific areas of research: the effectiveness of green messaging, the ergonomics of green products intended to take the place of current, less environmentally-friendly products, and efficiency in marketing and merchandising efforts. Special attention is paid to factors influencing consumer interactions with products, factors that influence the adoption and acceptance of new products, and the effects of research findings on the cost and environmental impacts of merchandising efforts. In each case, we provide concrete examples from our own research efforts, or from recent newsworthy events in green product introduction, and address the subjects of cost and environmental impact.

“Going green is bigger than the internet. It could be the biggest economic opportunity of the 21st century.” –John Doerr, TED 2007