



Sustainable Business Models: Time for Innovation

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Imagine that when you buy a pair of jeans you're offered an agreement to sign before you pay: "I hereby promise to cold-wash, line-dry this clothing item, and own it for at least three years or ensure it is given away for someone else to enjoy." When you sign, you are rewarded instantly with a coupon for cash back. The rebate is the estimated financial value of the carbon-dioxide emissions you save by avoiding hot-water washing, and by machine drying your jeans over the lifespan of the item. The clothing company is able to provide this discount by aggregating its consumers' carbon credits and selling them on the open market. This model provides financial incentives for both the clothing company and the consumer to alter behavior.

Far from fail-proof, this scenario is not yet being played out in any store near you. But some version is not far off, as pioneering companies pilot innovative approaches to survive and thrive in a more sustainable economy.

Today, business leaders face not only the economic fallout of the financial crisis, they face the substantial challenge of transitioning to a low-carbon economy that is constrained by dwindling natural resources. Indeed, consumption rates are such that we would need six planets to fill our current demand for raw materials. As awareness of our situation grows, the public will demand goods and services that are even more environmentally sustainable. Massive efforts are required to reduce the amount of materials we use—including freshwater, minerals and oil, biodiversity, and marine resources.

It's clear that business as usual is no longer possible as we transition to a low-carbon economy. Innovative business models offer pioneering companies an early start toward the future. They can signal to consumers how to make sustainable choices and provide reward for both the consumer and the shareholder. We have some interesting examples to learn from and build upon. I see four categories of innovation that, with more development and experimentation, will ensure business success in a reset world.

The Real Value Model: Integrating the Cost of Environmental Markets into Consumer Goods

Right now, when you drink a bottle of water or take a shower, you don't pay for the watershed protection provided by a distant mountain or hillside's filtration process. What if you did? Would the higher price impact how much you consume?

When the [value of environmental services](#) is not commoditized and traded, its de facto price is zero. Environmental services include carbon sequestration, which helps regulate our global climate system; watershed filtration, which ensures water quality to local sources; and biodiversity conservation, which increases ecosystem resilience and provides a host of other direct benefits. Once a market is established for these services, prices can be assigned, the services can be traded, and profits can be made.

This is neither new nor small potatoes. For example, in 1995 the United States launched the first large-scale market in trading permits, or “allowance” of sulfur-dioxide (SO₂) emissions. The allowance trading system provides incentives for energy conservation and technology innovation that can both lower the cost of compliance and yield pollution-prevention benefits. In fact, the SO₂ trading program has achieved reductions in emissions ahead of schedule in its first phase. Since then, we’ve witnessed the creation of multimillion-dollar markets in greenhouse gases, wetlands, clean water, and even in the conservation of endangered species.

As these markets develop, their power can be integrated into business models and harnessed to help consumers make smart choices. Here’s an illustrative case study: Due to local regulation in New South Wales, Australia, individuals can bundle their validated reduction in carbon emissions and sell them on the NSW carbon market. An entrepreneurial company, Easy Being Green, created a business trading energy-efficient light bulbs for individuals’ carbon credits. When the price for carbon was high, this was a nicely profitable business that gave consumers a financial reward for switching to an energy-efficient product. Price volatility in the carbon market caused this pioneering venture to go belly up. Indeed, failures will always be a part of the pioneering landscape, especially when commodities have unstable market support.

The Game-Changer Model: De-Materialization via Disruptive Technology

Got an iPod or MP3 player? Do you pay to download music from the internet? Consider yourself a disruptive consumer (in a good way)! Apple’s disruptive business model eliminated the need for polymer-based CDs. By selling music online, Apple “de-materialized” one aspect of the industry and created an entirely new business.

“Above-ground mining” is another example of a disruptive business model. The Belgium-based materials technology group Umicore SA transformed itself from a “traditional” provider of metals to its customers—it mined the earth in Africa and Latin America for a wide variety of materials. Today, it is able to recycle or recover 17 metals, of which seven are precious metals. This model not only prevents increased environmental destruction from continued mining, it rewards heavy industry for recycling their materials by creating a market for them.

De-materialization can take us a fair way down the path toward sustainability. Most models rely on technology. For example, as telephonic interfaces with banking become more sophisticated, they will replace paper train, plane, and other forms of tickets—and possibly car keys. Thus as technology advances, so will the opportunities to displace materials. However, the real trick is to combine the benefits of de-materialization with a disruptive business model that alters behavior for a significant reduction.

The Qualifying Model: The “Wal-Mart Effect”

The Qualifying Model uses the power of a business’ most important relationships—those with customers and suppliers—as an effective lever to support sustainability.

Wal-Mart has effectively changed the environmental footprint of many of its suppliers by simply insisting on certain environmental standards. The model is that of a stick rather than carrot, and it is a deceptively simple business model: Use certain sustainability criteria as key components in determining your suppliers and your customers.

Using environmental criteria with your suppliers is a well-established means for creating niche goods such as organic foods, Forest Stewardship Council (FSC) paper and wood products, and ocean-friendly fish (Marine Stewardship Council or MSC). In these examples, the price premium is usually passed to the consumer, who is informed about the content of the good by a seal or mark on the package. Wal-Mart has taken this model beyond niche and is, for the most part, not passing on increased cost to the consumer. Market size permits this behavior, and the spinoff impacts for other distributors are yet to be understood.

Applying criteria to customer selection is less understood than supplier criteria but equally effective as a Qualifying Model. The 2009 winner of the Financial Times' Sustainable Bank of the Year Award, Europe's Triodos Bank will lend only to financially viable businesses that provide either explicit social or environmental benefits. As a result of investigating a potential client's involvement in their community or environmental programs, the bankers create another important benefit: They strike a relationship between lender and banker. This model has encouraged businesses that are potential lenders to become proactive supporters of sustainability. It has also rewarded Triodos' investors. CEO [Peter Blom](#) attributes the bank's stellar performance throughout the financial crisis to the intangible benefits of lending only to those they know well and who are engaged in their local communities.

The Bikini Model: Sell Less, Make More

For most business leaders, profits are predicated on selling more. This model flips that paradigm on its head and still results in a healthy profit. One of the fundamental challenges we face in societies that are [fed on overconsumption](#) is how to foster client contentedness with less—especially after we have spent decades telling them they'll be happy only if they consume more. It's a fine mess, but we do have some interesting pioneers to point the way.

The bikini is our inspiration because the less fabric involved, the more the consumer tends to pay for it. Some companies have switched from [selling products to selling services](#). A popular example of this model comes from Interface, which switched from selling carpets to renting carpeting services. Another example comes from DuPont's industrial paints business, which switched from selling paint by volume to selling the service of painting cars. DuPont is paid based on the number of cars painted, not the quantity of the paint used. By perfecting the painting method and improving its paints, the company reduced the quantity of paint required per car, which lowered both the car's cost and its environmental footprint.

The Bikini Model, like the swimsuit, does more with less. Only in this case, the model results not in greater sex appeal but in enhanced product durability and more opportunities to reuse and recycle the commodity. Many of the products and services in this scenario will require a disruptive business model. For example, I am waiting for the water company that stops selling plastic bottles full of water, and sells empty durable (yet chic) bottles with built-in filters so that we can fill with ordinary tap water when we're on the go.

Bikinis aren't jeans, and I, as a consumer, am not yet ready to pay more for jeans with less material. However, I do welcome the day when I am rewarded for keeping my clothes longer—in other words, for consuming less. These are the core behavioral changes that could be supported by the carbon-credit scheme noted earlier. If the company splits the value of the carbon savings, it could drive value from selling less, all the while keeping me well-covered.

This type of innovative business model is needed—now. Good companies can adapt and innovate themselves out of any crisis, be it related to the economy or

the ecosystem. As we face both types of pressures, the companies that innovate their business models—with sustainability in mind—will emerge from this crisis stronger.