Carbon footprinting and pricing under climate concerns

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Researchers from Esade, University of St. Gallen, HEC Paris, and Columbia University published a new paper in the *Journal of Marketing* that explores the conundrum faced by firms that want to reduce their impact on the climate: Green products and their popularity with consumers can lead to an increase in sales and, with it, an increased carbon footprint for the organization as a whole.

The study, forthcoming in the *Journal of Marketing*, is titled "Carbon Footprinting and Pricing Under Climate Concerns" and is authored by Marco Bertini, Stefan Buehler, Daniel Halbheer, and Donald Lehmann.

"How dare you continue to look away." This statement angrily made to world leaders by teenage climate activist Greta Thunberg brought the climate change debate sharply back into focus at the 2019 UN Action Summit in New York.

Reducing greenhouse gas emissions has been on the world agenda for decades (197 nations formally committed to reducing carbon emissions at the Rio de Janeiro Earth Summit in 1992). But public opinion has reached a point where "business as usual" is becoming increasingly difficult to justify.

Marketing professionals play a critical role here because they represent the voice of consumers among internal stakeholders. They sense and measure changes in consumer preference and champion these emerging trends within their firms.

There is also a second element at play in the drive towards carbon neutrality: Climate concerns reduce profitability.

In both regards, the role of marketers is crucial: They channel climate concerns back to the firm, along with their impact on product design and prices, the climate impact of the firm, the profitability of carbon offsetting, corporate social responsibility, and green technology adoption.

With such a wide remit, managers who are balancing consumers' climate concerns with stakeholders' business goals should follow these three steps:

1. Calculate a carbon footprint

Media coverage of climate change, particularly the need to reduce the carbon footprint of an organization, is shown to motivate consumers to make more sustainable consumption decisions. Following particularly bad press, the airline industry has been very public in its commitment to carbon offsetting. EasyJet claims to offset the carbon emissions of fuel for each of its flights and British Airways promises the same for all its domestic flights. In the US, JetBlue is the first major airline to pledge to reach net zero.

The experience of airlines translates to a vast array of organizations in the manufacturing and service industries. Measuring the climate impact of their products or services in carbon dioxide equivalent emissions is a powerful metric and very much in line with the UN's "measure, reduce, offset" approach in its Climate Neutral Now initiative.

2. Decrease footprint, increase price

Changes in the carbon footprint may increase costs, but they can also increase demand. If the demand-enhancing effect of lowering the carbon footprint of a product outweighs the overall reduction in carbon footprint, the firm can fall victim to its own success. The firm could purchase carbon offsets, but that would have a further impact on profitability. In order to become "net zero" it may be optimal to increase the product price in order to offer a climate-neutral product. In this case, going net zero is a win-win strategy: Climate impact decreases, profit increases.

3. Be proactive with product design

Consumers' climate concerns provide an incentive for firms to produce greener products. But governmental regulation of carbon use in industrial design with market interventions such as carbon caps (consumption-based accounting and policy), cap-and-trade systems (regulations that limit industrial emission levels), and carbon taxes all reduce profitability.

However, while there are costs associated with climate regulations, they can also present opportunities. Investing in green technologies can reduce the cost of compliance and also generate income by selling the technology that is developed. Setting an internal carbon price—a shadow price that reflects the true overall cost of production—allows firms to design products or deliver services that achieve carbon neutrality while also maximizing organizational profits.

Climate concerns are not going to go away. Firms—and especially marketers—must be at the center of the drive to produce products that pollute less, whether the incentives come from altruism or the demand-enhancing effect of a greener offering. What they cannot do is continue to look away.

More information: Marco Bertini et al, Carbon Footprinting and Pricing Under Climate Concerns, *Journal of Marketing* (2020). DOI: 10.1177/0022242920932930

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