



## **B. Business Impact**

# **How supermarkets can contribute to sustainable development through pricing**

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## **[ How supermarkets can contribute to sustainable development through pricing**

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### **Abstract**

This impact paper suggests how consumer industries could take social responsibility into their own hands and increase overall sustainability in this sector. We illustrate our idea through the dairy industry to showcase how companies could act at the interface between consumers and producers with the purpose of encouraging more sustainable consumption. More specifically, we outline how innovative participative pricing mechanisms, with the help of sustainable prices (i.e., including the costs for social and environmental sustainability), can be used to encourage consumers to mitigate the consumption of less sustainable products or to shift their preferences towards a more sustainable alternative in general.

Keywords: Participative Pricing Mechanisms, Sustainability, Pricing, Willingness to pay, Consumer Behavior

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## How supermarkets can contribute to sustainable development through pricing

'Sustainability' can be considered a global consumer trend. Increasing concern about the social and environmental sustainability issues surrounding products we consume has translated into sustainable business practices by companies: They examine how their products are produced and marketed to clearly position themselves on product sustainability-related issues. This helps them attract and retain customers (Bridges & Wilhelm, 2008; Olsen, Slotegraaf, & Chandukala, 2014). Despite this ongoing transition towards sustainability, many industries still operate unsustainably with regard to the daily lives of consumers (e.g., grocery shopping, fast fashion).

Taking the example of supermarkets and grocery shopping, the majority of this market is still unsustainable: To illustrate the scale of the dairy market and its sustainability, the worldwide market value of this industry will increase between 2019 (\$673.8 bn) and 2024 (\$1032.7 bn), while the worldwide market value for organic variants will increase from \$19.4 bn (2019) to \$28.7 bn (2024) (Statista, 2020). Hence, given the sharp increase in dairy production because of the growing population and the related increase in consumption, it is essential to understand how supermarkets can efficiently use sustainable marketing (i.e., sustainable pricing) to encourage consumers to consume more sustainably (i.e., increase their preference for "green" product variants). Green products in the dairy industry include, for example, fair-trade or organic products (Gleim, Smith, Andrews, & Cronin, 2013).

Against this backdrop, marketing can encourage consumers to consume sustainably (Gordon, Carrigan, & Hastings, 2011; White, Habib, & Hardisty, 2019). Based on the triple-bottom-line approach, it is essential for companies to strive for financial (economic), social (equity), and environmental (ecological) sustainability (Gleim et al., 2013). To secure financial sustainability, the price, as a marketing instrument, is an obvious and particularly useful predictor – it is directly linked to revenues. However, social (e.g., extremely low wages) and environmental (e.g., air pollution) sustainability-related product costs are usually not integrated into the regular retail price (True Price, 2020). If one of these cost components does get integrated, products are usually more expensive (Gleim et al., 2013).

Unfortunately, these higher prices can, in turn, have a deterrent effect on consumers' purchase decisions, simply for budget reasons. The price premium of many green products is still the major barrier to its consumption (Gleim et al., 2013). Thus, this 'cost-plus' pricing mechanism denies some consumers the opportunity to act more sustainably. The company's aim of acting more sustainably might fail in such cases due to budget constraints on the consumer's side and because consumers reject a price premium which is 'imposed' on them. While the many ways of addressing this issue, such as governmental subsidies, should be acknowledged, focusing on pricing decisions by the company is an easy-to-implement and cost-effective method in this context. Hence, it is essential to understand how the price can encourage consumers to act more sustainably.

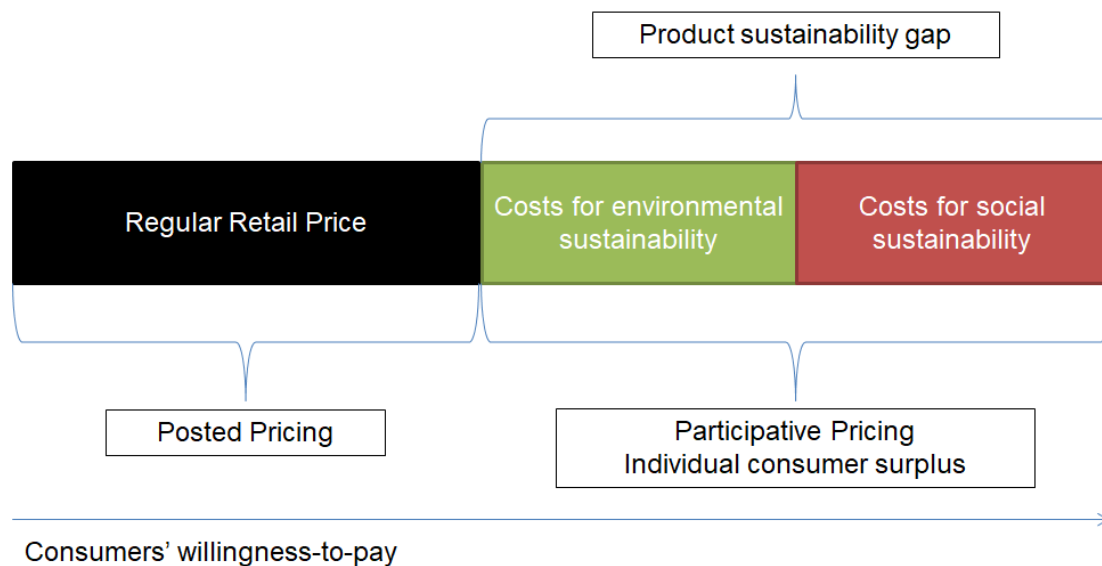


Figure 1: Illustration of idea

To understand how supermarkets can integrate social and environmental costs into their product prices, we introduce the idea put forward by True Price (True Price, 2020). True Price is a social enterprise which measures and monetizes the sustainable impact of products. Founded in 2012 with the aim of making products sustainable, its vision is to make products affordable to everyone by enabling consumers to voluntarily pay the sustainability-related costs of their products. Externalities such as resource usage (e.g., land, water), pollution (e.g., air, water), workers (e.g., income, child labor, health), and society can be considered as sustainability-related product costs. Interestingly, a major supermarket chain in Germany (Penny) currently displays True Prices on selected products.

However, this particular supermarket does not offer the consumer an opportunity to *pay* the True Price of the product (or to pay anything in excess of the regular retail price). Instead, its focus is simply on creating awareness among consumers of the impact of their consumption by transparently displaying the additional costs that occur through production (e.g., fair wages) and transportation (compensation for transport emissions: CO<sup>2</sup>). In doing so, they seek to strengthen the discussion about the cost of production with this additionally displayed price next to the regular retail price. Still, the question remains of how to practically implement the idea of True Price to enable supermarkets to actually skim off consumers' *surplus* in order to meet social and environmental sustainability-related product costs.

We looked into behavioral pricing research as a source of inspiration. This research stream shows that pricing has a strong impact on consumer behavior. New methods of pricing such as participative pricing mechanisms have emerged recently (Koschate-Fischer & Wüllner, 2017). These mechanisms focus on voluntariness and individualism and give the consumer more control over price setting, compared to prices set by the company. The identifying characteristic of such a pricing mechanism is that consumers, instead of retailers, have strong control over the final price to be paid for a product (Wagner & Pacheco, 2020).

Therefore, we suggest that retailers should not merely display two prices (regular retail price, True Price); instead, through participative pricing mechanisms, they should invite consumers to actually *pay more* than the regular retail price, without this surplus necessarily being limited to the True Price of the product. Adding a participative pricing mechanism to the regular retail price would thus be applicable for companies seeking to rely on consumers' individual willingness to pay (individual surplus) for the social and environmental costs associated with the products in question. Moreover, supermarkets

using this pricing approach would enable consumers who cannot afford higher posted prices for more sustainable products to pay more than the regular retail price for a conventional product. This would allow budget-constrained consumers to (at least partially) cover products' sustainability-related costs and would thus serve as a mitigation option for the consumption of less sustainable products. Consumers without any budget constraints or consumers who buy organic products more frequently and hence express a higher willingness to pay for them, could 'simply' pay the True Price (or whatever they want, beyond the regular retail price) of the product.

We postulate that adding a participative pricing mechanism to the already existing posted prices in a supermarket could potentially increase the overall sustainability of the dairy industry, either by getting consumers to purchase more sustainable green products or by enabling them to compensate for their less sustainable consumption of conventional products. In summary, any amount in excess of the regular retail price would be entirely used to (proportionally) cover the sustainability-related costs of the product and serve as a contribution towards sustainability.

To illustrate this idea, we draw on the following example based on information provided by the supermarket that uses True Prices in Germany. In this case, a conventional (organic) apple would need to cost 8% (4%) more than it currently does in this supermarket to cover its social and environmental sustainability-related costs. At the cash register, we posit that consumers should pay the regular retail price and that the cash receipt should visibly display the True Price and True Purchase Amount (i.e., in monetary terms). Moreover, with the help of this cash receipt, consumers should be able to 'compensate' online for their sustainability-related costs afterwards, based on their individual preferences – to avoid any unpleasant social desirability effects such as feeling forced to pay higher prices. This would mean that the cash receipt displays €1 (€1.10) for the conventional (organic) apples purchased and additionally displays the True Prices, €1.08 (€1.14), which the consumer can voluntarily cover. It would be conceivable for consumers to cover the sustainability-related costs up to a certain amount, depending on whether social or environmental concerns (given any budget constraints) are relevant to them. This means that consumers could decide how much they want to pay for conventional (organic) apples: between €1 (€1.10) and €1.08 (€1.14), or even more.

More specifically, the cash receipt could feature a QR-Code which allows consumers to 'compensate' online for their sustainability-related product costs after the purchase. To incentivize consumers to do so, we consider a form of raffle to be a viable option. The chance of winning could increase with the amount paid in excess of the regular retail price (or the total amount paid towards sustainability) and hence further incentivize consumers to compensate for their consumption. Consumers who already purchase more sustainable green products should automatically take part in the raffle so that they do not feel disadvantaged for their behavior. This idea obviously requires the related technically relevant processes to be in place – such as the QR-Code and all relevant backlogs for tracking and transferring the money accordingly (e.g., the usage of blockchain technologies could also be an interesting area in this context to make the whole process more transparent). Then the supermarket would be able to separate its revenues related to the regular price from those that relate to the voluntarily paid excess amount.

This idea is essentially not new: It is comparable to donations to charity or carbon-offsetting. From the literature, we also know that in order to implement the idea effectively, consumers need to have *trust* in the whole organization/procedure (Bennett, 2009), i.e., the methods for calculating the True Price and the retailer's ability and willingness to transfer any amount paid above the regular retail price towards the mitigation of sustainability-related product costs.

In conclusion, it is crucial for everyday consumer industries (e.g., the dairy industry) to start operating more sustainably. The idea put forward by this impact paper provides opportunities and ideas for consumer industries to either try to convince consumers to consciously decide to choose a more sustainable product alternative (i.e., by only displaying the True Price) or to enable and invite consumers to (partially) cover sustainability-related product costs (i.e., using a participative pricing mechanism in combination with the True Price). This could contribute to overall sustainable development in consumer industries.

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