

BUSINESS MODELS FOR REACHING LOWER-INCOME CONSUMERS WITH NUTRITIOUS FOODS



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ABOUT GAIN

The Global Alliance for Improved Nutrition (GAIN) is a Swiss-based foundation launched at the UN in 2002 to tackle the human suffering caused by malnutrition. Working with governments, businesses and civil society, we aim to transform food systems so that they deliver more nutritious food for all people, especially the most vulnerable.

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GAIN BRIEFING PAPER SERIES

GAIN Briefing Notes provide essential information in a succinct, accessible form to support informed decision making by stakeholders in the food system to improve the consumption of nutritious, safe food for all people, especially the most vulnerable.

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SUMMARY

Lower-income populations in low- and middle-income countries (LMICs) often face challenges accessing affordable, desirable, safe, and nutritious food, contributing to poor diet quality and malnutrition. As the main source of food for most of this population, private-sector firms have the potential to play a role in alleviating this – but to be sustainable, they must do so profitably. This briefing paper summarises specific ways that companies have adapted their business model to reach lower-income consumers in LMICs with food products. The analysis is based on a systematic review of research as well as a scoping review of real-world companies.

Thirteen specific business model features that firms have used to reach lower-income consumers with food products are presented: Cross-subsidisation, increasing value through convenience, use of waste products, less desired parts, quality segmentation, cheaper ingredients, small sizes, selling in flexible quantities, no or reusable packaging, distribution hubs, bespoke last-mile distribution networks, providing new support to existing retail/distribution networks, and direct sales in underprivileged areas. While this diversity is promising, there is little high-quality evidence on the ability of the business model features discussed here to actually reach lower-income consumers, improve those consumers' diets, and do so profitably. None of these features alone can ensure success: each feature needs to be supported by the other aspects of a solid business model, such as strong customer relationships and a robust supply chain, and companies often adopt multiple different features at once. But when used well, and for nutritious foods, such approaches have the potential to help improve lower-income consumers' nutrition.

KEY MESSAGES

- Private companies can help increase access to nutritious foods among lower income consumers, but to do so they need viable business models.
- A review of prior research and existing companies identified 13 specific approaches companies have used to try to reach lower income consumers.
- These include approaches that modify the product itself, such as using cheaper ingredients; the packaging, such as smaller sizes; the distribution approach, such as last-mile sales networks; and the cost structure, such as cross-subsidisation.
- While promising, the evidence supporting their use to improve nutrition remains limited; research is needed to better understand their effectiveness.

BACKGROUND AND OBJECTIVE

Nutrition plays a foundational role in health and wellbeing of individuals as well as society's achievement of numerous development goals (1). In turn, the foundation of good nutrition is consuming a healthy diet (2). However, poor-quality diets are common throughout the world, with dietary risks responsible for an estimated 22% of global deaths (3), and lower-income people in low- and middle-income countries (LMICs) tend to particularly struggle to be able to access and afford healthy diets (4).

Since most consumers in LMICs purchase most of their food (4), private-sector companies could play a role in improving diets by bringing more safe and nutritious products to market, in forms that are appealing and affordable to consumers. This could also benefit companies' bottom lines (5). Meeting both business and low-income consumer needs simultaneously, however, requires developing a viable business model that can address consumer demand in a financially sustainable way. This may require novel approaches, as the needs and capacities of lower-income consumers can be different than those of higher-income consumers.

To identify promising business model features for reaching lower-income consumers with nutritious foods, GAIN undertook a review of research and companies' approaches.¹ This paper summarises the results of that review.

CHALLENGES ASSOCIATED WITH REACHING LOWER-INCOME CONSUMERS WITH NUTRITIOUS FOODS

Firms selling nutritious foods to lower-income consumers in LMICs face distinct challenges. On the demand side, lower-income consumers have certain specific needs and face specific constraints. They have limited budgets and tend to prioritise good value for money; are often risk averse; may prefer less formal retail outlets, where informal credit and bargaining are options; may place a premium on convenience; and may engage in 'aspirational consumption'. Low-income consumer demand for nutrient-dense foods is often seen as being low (7). However, investing in awareness-raising about nutritious foods and their general benefits, or trying to shift social norms and preferences for healthy eating, are rarely profitable activities for any individual company. While companies can (must) invest in promotion of their own products, this takes time and money, which may increase prices. In addition, the nutritional value of foods and the impact of consuming them are largely invisible, making it difficult to capture value and running the risk of rivals undercutting nutritious products with cheaper, less-nutritious alternatives (8). From a nutrition perspective, certain population groups are particularly important to target (e.g., young children); however, such targeting is often difficult and can result in too narrow of a market to be economically viable (8).

¹ The review included 74 documents and 99 companies; details on the methodology are available in a published paper (6). While the review focused on all food products, interpretation considered the 'nutritious' aspect: e.g., for any business models found to work for non-nutritious foods, the analysis considered whether the approach could also be applied to nutritious foods.

On the supply side, LMIC food markets are often characterised by a large number of small producers, as well as a relatively large (unconcentrated) number of intermediaries (9); coordinating with these actors raises transactions costs. In addition, poor- and variable-quality inputs and lack of infrastructure access (e.g., reliable electricity) in LMICs can raise processing costs or levels of loss, impacting consumer prices (10). Adding to this, the agri-food sector is challenged by thin profit margins, seasonality and interrupted supply, higher-than-average risk (e.g., due to weather), and ease of copying products (11).

Within these constraints, companies need to be able to achieve the 'Four A's' of low-income consumer marketing: accessibility, affordability, awareness, and acceptability (see explanation at right).

'Four A's' of Low-Income Consumer Marketing

Accessibility – product is sold where consumers can easily get it (including in rural and low-income urban areas)

Acceptability – product is accepted by the consumer (given their needs and preferences)

Affordability – product is sold at a price point that aligns to the consumers' purchasing power

Awareness – consumers are aware of the product and its benefits

Source: (12,13).

SPECIFIC FEATURES OF BUSINESS MODELS FOR REACHING LOWER-INCOME CONSUMERS ²

To address these challenges, firms can adapt their business model, and the review identified 13 specific ways of doing so. These are summarised in Table 1 and described below. None of these features *alone* can ensure success with either reaching lower-income consumers or doing so in a financially viable way: they need to be supported by the other aspects of a solid business model. Many firms also choose to use several of these business model features at once.

CROSS-SUBSIDISATION

Under cross-subsidisation models, one product is sold with a larger margin, with the excess profit used to subsidise another product sold at a smaller margin. This strategy can be used across products or with the same product sold in different forms or settings to different groups of consumers. For example, Protein Kissée-La in Côte d'Ivoire cross-subsidised its fortified porridge flour by supplying maize grit to breweries (7); Cargill, the major multinational, introduced its fortified oil in India at a low cost by subsidising it through profits from other products in its portfolio (7); and Danone Indonesia marketed a fortified milk-based beverage, Milkuat, in a premium range and used those margins to make a basic version available at about half the price (12).

² For each business model feature, there are specific food safety and nutrition considerations; these are not covered here due to space constraints but are discussed in the full report: <https://www.gainhealth.org/resources/reports-and-publications/business-models-reaching-lower-income-consumers-nutritious-foods>

Table 1. Identified Business Model Features

Theme	Feature	Explanation
Cost structure	Cross-subsidisation	Selling one product with a larger margin enables selling another with a smaller one.
Product	Increase value through convenience	Increase convenience of the product (reducing time or cooking cost), thereby increasing value to the customer and their willingness to pay.
	Use of waste products	Use products that would normally be waste as ingredients or inputs
	Less-desired parts	Use parts of a product that are usually considered less desirable and can be sold more cheaply.
	Quality segmentation	Grade product by quality, directing the lower-quality but still useable product to the lower-income market.
	Cheaper ingredients	Substitute ingredients with cheaper alternatives or cut unneeded ingredients altogether.
Packaging	Small sizes	Use small package sizes, or break something normally sold as a whole item into its parts.
	Sell in flexible quantities	Sell in flexible quantities, allowing customers to purchase only as much as they need (i.e., 'purchase and pay as you can').
	No or reusable packaging	Eliminate or cut packaging costs by removing packaging or using reusable packaging (often paired with flexible quantity sales).
Distribution & Retail	Distribution hubs	Set up a hub to centralise distribution and thus cut distribution costs.
	Bespoke last-mile distribution network	Create a new last-mile distribution network to reach lower-income consumers, specific to a company or product.
	Existing network with new support	Use existing retail networks that reach lower-income consumers, but give them new support with marketing or distribution.
	Direct sales in underprivileged areas	Sell directly to consumers, locating in a low-income area.

INCREASED VALUE THROUGH CONVENIENCE

Firms that can find innovative ways to make a product more convenient can enhance the perceived value of the product — increasing its effective affordability for the consumer. For example, a Kenyan firm, Kwanza Tukule, pre-cooks beans and delivers them directly to street vendors — mostly women, who sell mostly to low-income laborers — using an app. This provides considerable convenience for vendors by cutting time for purchasing and preparation; 63% of the firm's client vendors report purchasing due to this time savings (13). Several companies sell pre-cooked porridges (often fortified and directed at young children), which are either ready-to-eat/drink or require only a few minutes of preparation. For example, Nutri'Zaza (a Malagasy initiative initially started by the French NGO GRET and now an independent social

enterprise), produces a fortified grain-and-legume infant flour, which is sold ready-to-eat in poor urban neighbourhoods as well as in dried form at stores. A serving costs less than 10 US cents, and 12.9 million meals were distributed in 2020 (14,15). For many caregivers, the main advantage of the product is the time-savings.

USE OF WASTE PRODUCTS

By taking food that would otherwise be wasted and repurposing it into something that can be consumed (or can be an input into something that can be consumed), firms may be able to create a more affordable product, given that the 'waste' ingredient is usually available cheaply or for free. This business model feature comes with the added benefit of reducing the environmental impact of the local food system. For example, Reybanpac in Ecuador used whey, a high-quality easily digestible protein leftover from processing milk into cheese, to create a UHT processed (thus shelf-stable), low-sugar, fortified yoghurt. Whey was previously disposed of as waste – dumped into rivers at a rate of 800,000 litres a day – and so could be acquired cheaply (7,16). Limpho Productos Alimentares in Mozambique uses broken nuts that would not normally be sold to make nut butter, and is aiming to use a similar approach to create rice flour-based products from broken rice (17).

LESS-DESIRED PARTS

For products that would normally be sold whole but for which some parts are more desirable than others, firms can segregate these parts and sell the less-desirable ones separately, at a discount. For example, a goat farmer in Mozambique, MozAgri, sells the main goat meat to urban markets at market prices while selling the 'fifth quarter' (i.e., organs, hide, intestines, feet, the head, horns, hooves, bones, and/or fat) to the local rural population around the farm at affordable prices. Multiple chicken farmers in Mozambique and Kenya do similarly, selling the chicken offal and other offcuts like skin, neck, and feet at a cheap price while selling the more desirable chicken meat (e.g., breasts, drumsticks) at market prices to wealthier consumers (18).

QUALITY SEGMENTATION

Under quality segmentation, a product that exists in different forms of different qualities is graded by quality, with lower-quality versions sold at cheaper prices (possibly with cross-subsidisation from the high-quality version to further lower prices, as discussed above). This approach can also be used for aspects of quality other than the product itself — for example, packaging the same product in a cheaper packaging format with limited branding for a low-income market and in 'premium' packaging, with branding, for a higher-income market, at different price points.

For example, one Rwandan firm provides some of its low-quality eggs (e.g., cracked, discoloured, unclean, misshapen, or with soft shells) to employees for free, for their own consumption, and sells the remainder to members of the local low-income community at half the normal price; it sold about 45,000 eggs this way in 2020. Two firms (R&D Green Mart in Nepal and SPAR supermarkets in South Africa) used a similar approach with fresh produce: selling the low-grade produce at discount prices

through local markets in lower-income areas, including to their farmer-suppliers, while the higher-grade produce is sent to higher-income urban markets (7).

CHEAPER INGREDIENTS

To cut costs, companies can replace ingredients with cheaper alternatives, or omit certain ingredients altogether. For example, CTAE in Benin developed a product, *soya goussi*, which replaces the mashed seeds used in a traditional dish with roast soybean to create a cheaper product – which is also more nutritious, having a higher protein content. This is particularly low-cost as it is made using soy cake, a by-product of soybean oil production. The product can also be used to substitute for meat, at about a 30% lower price than chicken (10). A Cambodian producer of fortified snacks and therapeutic foods, Danish Care Foods, replaced the imported dairy- and peanut-based products used by its competitors with cheaper local fish and beans, which also enabled it to better cater to local tastes (19).

SMALL SIZES

Using small package sizes is probably the most common strategy used for reaching lower-income consumers across products and contexts (5). This strategy responds to the limited cash on hand (and, in some cases, storage space) of lower-income consumers by providing a small quantity of the product at a lower price than the normal package size—though it also often entails higher per-unit costs and can have a large environmental impact. For example, consumer-products giant Nestlé has a product line offering single-serve units to lower-income consumers, such as dried milk (26 grams for 30 cents USD) and Maggi tomato bouillon (5 cents for a typical meal's worth) in Cameroon (20). Multinationals Unilever and DSM have similar lines (21). Among smaller firms, this strategy was found among dairies in Ethiopia, Tanzania, Kenya, and Mali; an edible oil refiner in Uganda; a peanut butter producer in Kenya; and several others.

SELL IN FLEXIBLE QUANTITIES, OR AS PARTS OF A WHOLE

Vending food products in flexible quantities (i.e., loose, as opposed to in packages), enables customers to buy very small amounts (at lower cost) and to avoid the costs of packaging. It is estimated that such models can make products 30-50% cheaper than branded packaged goods, due to saving on packaging and transportation (22). As an example, Kenyan milk retailer Tarakwo Dairies has used 'milk ATMs' filled with pasteurised, refrigerated milk that allow customers to choose the amount of milk they want and pay accordingly; a cup of milk (80 mL) can cost as little as 5 US cents (23). A similar approach is to sell something normally sold as a 'whole' item as parts, which was used by six firms covered in the review. For example, several firms in the review made chicken available for purchase in parts, rather than the traditional local approach of only selling a whole chicken (18)—though without necessarily having to choose the less-desired parts, as in the model described earlier. This can enable customers to purchase some chicken, even a small amount, for about 0.50 US (24).

NO OR REUSABLE PACKAGING

While a lack of packaging or the use of reusable packaging can be a feature of flexible-quantity purchasing models, it can also be used independently. This cuts the costs of packaging, and has environmental benefits in terms of reduction in packaging waste. In addition to the 'milk ATM' model mentioned above, another dairy in Kenya distributes its pasteurised milk to low-income neighbourhoods in large jugs, enabling consumers to bring their own reusable container to the store to fill up. In this case, the full cost of packaging (including cleaning it) is transferred to the user. Drink producers also often use reusable glass bottles for their drinks, reducing the cost of single-use packaging. In that set-up, the business retains the cost of the packaging (and cleaning it between uses), but this is reduced due to the reusable nature of it.

DISTRIBUTION HUBS

Under a 'hub' model, aspects of distribution are grouped together instead of done separately. This can improve efficiency and cost-sharing, reducing costs overall. For example, Copia in Kenya allows customers in rural areas to affordably access a range of goods by purchasing through local sales agents, who then pass on the order; orders in the area are grouped to be fulfilled through one shipment to the agent, at a cheaper cost than single-customer deliveries. The model covers about 22% of Kenya's rural population and has about 1.4 million customers.³ In Indonesia, the social enterprise KeBal uses a hub approach for providing fortified foods to street children. They have central cooking centres where fortification happens during cooking; this centralisation cuts costs and controls quality. The meals are then distributed via street vendors carts in slum areas (7).

BESPOKE LAST-MILE DISTRIBUTION NETWORKS

Final distribution to the consumer is a key challenge in reaching lower-income consumers affordably. To address this, particularly in places where there are few existing retail outlets, firms can create a last-mile distribution network of agents to sell their product, often door-to-door but also from their homes. For example, in Brazil, Danone employs women from low-income neighbourhoods to promote and sell distribute dairy products door-to-door in their communities. As of 2018, it was reported to have a continuously expanding network of saleswomen as well as increasing sales, reaching an estimated 80,000 consumers (25).⁴ Unilever uses a network of over a million agents, known as 'Shakti Ammas' and 'Shaktimaans', to sell their products in India, applying similar models in several other markets (7). The small company GUTS Agro-industries in Ethiopia, a processor of fortified porridge products, runs a network of women entrepreneurs who sell door-to-door to households and retailers in low-income areas; the sellers are given branded uniforms, custom tricycles, and training and may also sell other, non-competing products (10).

EXISTING LAST-MILE DISTRIBUTION NETWORKS WITH NEW SUPPORT

³ <https://copiaglobal.com/copia-impact/>

⁴ While this model appears to be profitable or at least cost-neutral for Danone, it does rely on an NGO for training and supporting the women.

An alternative to creating a new bespoke LMD network – or to relying on existing retail outlets, as they are – is to use existing distribution and retail outlets but provide them with additional support to make them more effective at selling the target product. Support can include micro-distribution (i.e., small, regular deliveries; custom product assortments; local distributors; and small transport like pushcarts or bicycles), capacity building, and providing or facilitating access to financing (26). This can both incentivise them to sell the new product and improve their capacity to do so.

For example, Coca Cola and its subsidiaries in East Africa have developed 'manual distribution centres' that cheaply distribute to small shops and kiosks that are on narrow, unpaved, or unmaintained roads that could not be served by standard delivery trucks. This enables them to make small and frequent deliveries, which is better suited to the low-cash-flow, small-storage-space reality of local retailers. Alqueria, a Colombian dairy company, targets small retailers in rural areas by deputising a local resident to act as their distributor, using his/her home as a warehouse for UHT milk, and providing financing for a small delivery vehicle. These 'micro-sales' account for 5% of the company revenue, with strong growth (27,28).

DIRECT SALES IN UNDERPRIVILEGED AREAS

Some firms undertake retail sales themselves, directly, which can help to cut out the costs of intermediaries and allow them to more directly control pricing. When done in low-income settings with limited access to affordable nutritious foods, this can help reach lower-income consumers. For example, several Mozambican egg producers offer direct-to-consumer sales from their production sites, making eggs available cheaply, at a place that consumers can easily access on foot or bike. One of them is able to sell eggs at 12-15% below the market price by using this strategy. Nestlé has used an innovative approach to this strategy in Brazil: it created a barge that could sell its products in remote parts of the Amazon that cannot be reached by road.

CONCLUSION

This briefing paper has presented 13 diverse ways in which firms have adapted their business model to reach lower-income consumers in LMICs with food products. All approaches identified were used by SMEs, and most were also used by large multinational firms; most were also used for both highly nutritious food products and less nutritious ones. This suggests they are flexible and could be more widely applied. However, while this paper focused on successful examples of applying these, it is important to note that there are also many unsuccessful examples, and companies often struggle to reach lower-income consumers with nutritious foods – there are likely failures to do so involving every approach covered here. Evidence on their effectiveness is also limited (see Box 1). Moreover, whether these approaches are good for nutrition depends crucially on the foods that are sold: use of these models for less nutritious products will likely worsen lower-income consumers' diet quality, not improve it. Action from government and civil society, as well as businesses, is thus needed to incentivise the sale of nutritious foods over their less-nutritious alternatives. Finally, there are limits to what these approaches, even when successfully executed,

can achieve: even well-designed products will likely remain out of reach of many of the poorest households, who need to be supported through social protection programmes and poverty-reduction efforts to increase their incomes and enable them to afford healthy diets.

Those caveats aside, the approaches described here showcase the creativity that companies have displayed when attempting to reach lower-income consumers; this creativity can undoubtedly be leveraged to increase access to nutritious foods.

BOX 1. EVIDENCE TO SUPPORT THESE MODELS

While this paper presents examples of approaches that have been used in the past and appear promising, it is unclear how well they actually work. The review on which this paper is based found a considerable deficit of high-quality evidence on the ability of the business model features discussed here to actually reach lower-income consumers, to improve their diet quality, or to do so profitably. Indeed, from the sources reviewed, only 14 firms (of 99 considered) had evidence of reaching lower-income consumers with the target product(s); 11 had evidence of profitability; and 9 had evidence of affecting diets. And in most cases, this evidence was considered to be of low quality.

More, and better, research is thus needed to support these approaches' effectiveness.

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