

## Behind the Small-Package Success Story

Their popularity with low-income buyers may not be the only reason single-serve packages sell so well.

Single-serve packages are a hit in India and other poor nations, where shoppers buy sachets of shampoo for just pennies per day. Such purchases are popular because they allow low-income consumers to meet their immediate household and hygiene needs. But because per unit profit margins for single-serve packages are higher than those for larger packages, critics complain that these products impose a *poverty penalty*.

But not all experts agree that catering to low-income consumers is the only reason companies should sell daily portions of products. Taking a cue from C. K. Prahalad, author of the best-seller *Fortune at the Bottom of the Pyramid*, which salutes the single-serve practice, Professors **Rajeev Kohli** and **Oded Koenigsberg** and PhD student Ricardo Montoya asked if only low prices lured consumers toward smaller-size packages. If not, they hypothesized, the single-serve model might produce profits over the long run in certain markets.

One example of the single-serve trend can be found in Brazil, where roving makeup saleswomen sell daily portions of lotions with higher per unit prices to women of all wage levels. The fact that such single servings are popular irrespective of buyers' incomes, the researchers surmised, suggested that package sizes closely matching consumers' daily needs might prove more popular than supersize ones in emerging economies.

The fact that these products sold well at all wage levels refutes the poverty-penalty accusation, says Kohli, because it suggests that consumers care less about paying the lowest cost and more about finding products that best meet their immediate, tangible needs. Thus, though a premium may be imposed for single-serve purchases, the prevalence of these smaller-size, higher-margin packages does not necessarily translate

to exploitation of the poor. "Wealth does not necessarily dictate lower-cost purchases," Kohli explains.

This line of thinking also suggests that the continued availability of single-serve packages in poor countries might be wise, even if household incomes rise and a desire for convenience or variety of package sizes grows. Other successful examples of the single-serve trend include 100-calorie snack packs in the United States and Europe's practice of selling goods perceived as harmful—cigarettes, for example—in smaller quantities.

Offering single-serve packages may be a profitable strategy for manufacturers, the researchers found, as long as ordering and order-processing costs remain low and the volume of sales of single servings offset what companies typically save by selling fewer, larger-size packages. Finally, by projecting demand over time, the researchers determined that some consumers of smaller-size packages will continue to purchase them for some time, based on this buy-only-what-you-will-use rationale. Other consumers may trade up to larger packages, in line with their larger salaries, if their behavior follows the observed Western norm.

To pinpoint other reasons consumers might buy single servings, the researchers built a model based on a monopolist selling a product with a limited shelf life. The study assumed buyers would pay a premium price for a small quantity of a perishable good to avoid wasting money on a portion of a product that might ultimately be unusable. Kohli, Koenigsberg and Montoya factored in consumption rates and consumers' willingness to pay. Doing so, they theorized, might point to a profit penalty, or the possibility that single-serve packages would not sell as well if their per unit prices were high.

Overall, the researchers found that demand for a given quantity of a



single-serve package falls with its price and size, increases with its shelf life and grows for consumers needing a smaller volume of a certain good. In addition, profits from products sold to those buying no more than they needed could more than make up for profits lost from those buying more than they could use. As a result, if transaction costs—such as product storage, transport and travel or delivery time—remain low in markets where small-size packages sell well, manufacturers may want to continue serving that niche, even when incomes rise.

Selling in small quantities can also increase total sales of a given good, decrease product waste and result in higher profit because of the higher per unit prices of smaller-size units, the research showed. "Convenience, quality and assortment may be more important than cost for some consumers," Kohli says. "Poverty is not the only reason that small packages make sense."

### Read More

Koenigsberg, Oded, Rajeev Kohli and Ricardo Montoya. "Package Sizes for the Bottom of the Pyramid." Working paper, under review at *Marketing Science*.

**Rajeev Kohli** is professor of marketing and **Oded Koenigsberg** is associate professor of marketing at Columbia Business School.