

Predicting Takeoff and Decline for New Product Introductions



New product category creators must tether themselves to the ground (a.k.a. the bottom line) as they venture into uncertain markets.

Marketers of the latest and greatest, the ground-breaking inventions that will change the way our customers live and work, need to anticipate the pace and breadth of a new category's growth so as to avoid excessive marketing and advertising spend or overstocking inventory. A new working paper from the Marketing Science Institute offers good suggestions for predicting turning points in a product's adoption, expansion, and eventual slowdown.

In "Cascades, Diffusion, and Turning Points in the Product Life Cycle," Peter Golder of New York University and Gerard Tellis of University of Southern California try to protect marketers from their own sometimes-fatal (at least in the CFO's eyes) enthusiasm.

The typical product life cycle begins slowly, progresses to a period of rapid sales growth, and then to maturity, when that rapid growth slows down or even reverses, at least temporarily. But even beyond this, Golder and Tellis found that product life cycles have some reliable universals among the 30 categories they studied.

New consumer durables, for instance, show a distinct takeoff, after which sales increase by about 45% per year for an average of eight years before slowing down, hitting an annual sales decline of 15% to 25%. This sales curve applies to 30 distinct product categories under the consumer durable umbrella, from camcorders to air conditioners.



In charting a product's course, pricing strategy and traditional models of supply and demand must embrace the effects of early adopter decisions on those who will follow. The researchers demonstrate how consumers look at what others have done and then tend to act in the same way, without questioning the decisions of early adopters. Golder and Tellis tie this phenomenon to the "theory of informational cascades." Consumers, they say, follow no little ripple effect; instead they blindly accept that early adopters must have good information on which they base their purchases of a new product. Subsequent waves of buyers then make purchases with little additional inquiry into features or benefits or anything, really.

Cascades, therefore, are fragile as an opinionated few command the activity of a product's true takeoff. At the end of the growth stage, when opinion leaders back off or when the market hits an economic obstacle, sales can spiral downward without any cue to marketers to back off on spending and production.

Additionally, an enthusiastic rush to purchase by the opinion leaders may mean a rapid takeoff among mainstream consumers and over-consumption to the degree that the pool of potential buyers is depleted just as quickly as it grew. The researchers found that the quicker the uptake of a new product, the sharper its fall, all while we as marketers may still be counting on a good, long ride with our newest success.

Products that contribute to buyers' leisure frequently follow this path. Outdoor fireplaces experienced this run a season or two ago, as every suburban family tugged one out of their local home improvement store and into their backyard. A couple of manufacturers had just begun to bring their own versions to market as consumer purchases started to decline.

In contrast, products that offer the principle benefit of saving time for consumers experience a slower route from early adoption to takeoff and mosey their way towards category slowdown — when 34% of American households have purchased the product.

Golder and Tellis also offer some suggestions on how to extend the lifespan of our revolutionary product in a new category — through pricing. The slowing market becomes more price-conscious.

Obviously a different marketing plan must pervade each of the stages of the product life cycle, with appropriate levels of production, inventory, sales efforts, distribution, marketing, and advertising. And if marketers understand sales patterns, they can adapt their strategy accordingly.



To read the full paper, visit www.msi.org for "Cascades, Diffusion, and Turning Points in the Product Life Cycle" by Peter N. Golder, associate professor of marketing in the Stern School of Business, New York University, and Gerard J. Tellis, the Neely Chair of American Enterprise and professor of marketing in the Marshall School of Business, University of Southern California. The report was published in Spring 2004.