

**REDESIGNING THE**  
**NEW PRODUCT DEVELOPMENT**  
**PROCESS**

*A New Methodology for Understanding Consumer Preference*

*“If a man can write a better book, preach a better sermon, or make a better mousetrap than his neighbor...the world will make a beaten path to his door.”*

*Attributed to Ralph Waldo Emerson, circa 1871*

In the 130 years since Emerson made that statement, thousands, if not millions, of products have come and gone. Consumers have grown from a nascent voice in the country’s economy to a major driver of domestic growth. And consumer needs have led to innovations that would boggle the minds of turn-of-the-century business executives. Through the generations, new products have enticed consumers, engendered their loyalty, and driven decades of profitability for consumer packaged goods (CPG) firms.

Given the long history of new product creation, you would think that CPG firms would have perfected the new product development process. Would that were true! In fact, neither manufacturers nor consumers are happy with the state of innovation today. In a recent survey of 700 companies in ten different industries in *Research-Technology Management* magazine, 85% of the firms expressed dissatisfaction with the way they managed innovation. And a recent Accenture study of 3,500 consumers in five countries found that many consumers are not buying new products because they are disappointed by the level of perceived innovation. One third of respondents felt that most products and services today offer nothing new.

Why? For decades growth has been driven by the old CPG formula of growing profitability through prudent line extensions and lengthy, intensive development of new products or whole new brands. Then in the late 1980’s firms began reshaping their product portfolios to refocus on their most profitable core brands. Through the 1990’s a period of mergers and acquisitions streamlined the portfolios of most CPG firms, which generated notable profitability, but took management’s attention away from research and development—and innovation.

Now, however, a perfect storm of market factors has converged, making product innovation an imperative for today’s CPG firms. Caught between powerful retailers and price-sensitive consumers, and faced with crushing competition, leading consumer packaged goods companies around the world know that the only way to survive into the next century is to not only create a better mousetrap, but also to find better, faster ways in which to make it, position it and market it.

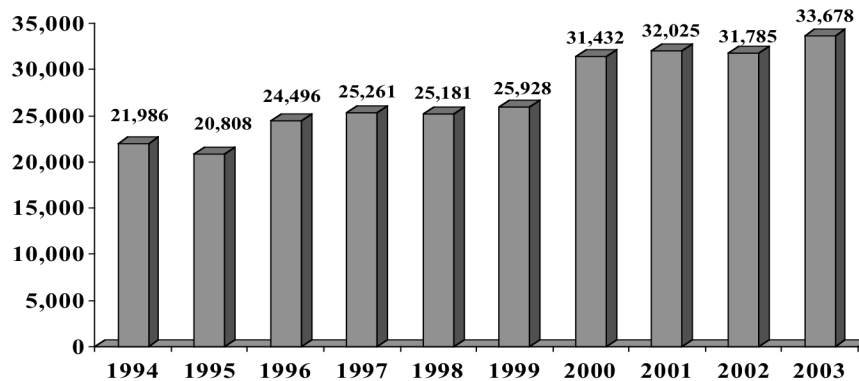
## Market Overview

Most CPG firms have invested in new product development assiduously over the years—though they would be the first to say that their efforts seldom have been rewarded long term. Over 33,000 new consumer products were launched in 2003 according to the Productscan database from Marketing Intelligence Service. These include everything from

true new product innovations, to simple line extensions, ingredient reformulations, resized containers, or new packaging. The rate of new product introductions has increased by over 50% in the last ten years, as shown in the graph below.

Yet, of the new products launched in 2003, only 3% are expected to reach \$50 million in first year sales. And Marketing Intelligence Service data projects that only about 4% will still be available four years from now. The more new products that manufacturers create, the more that fail. Clearly, something is wrong with this picture. The endless churn of new product introductions has overwhelmed retailers, disappointed consumers, and rallied competitors, leaving CPG firms realizing that they need to reevaluate, and even reinvent their innovation processes with new tools, new processes, and new thinking.

**New Product Introductions  
2002-03**



Source: Productscan Online; Includes new food, beverage, health, beauty, household and pet products

### *The Retail Squeeze*

As manufacturers have stepped up the pace of new product introductions, retailers have become increasingly selective due to increased pressure on margins and shelf space. In fact, new product growth has exceeded shelf space by a ratio of 5:1 according to management consultants McKinsey & Company, and as a result, retailers have reduced the time new products are given to prove themselves in the marketplace. In the last ten years, retailers have cut shelf time for new products by an average of 50%.

### *The Discerning Consumer*

Capturing the attention of increasingly discerning consumers in the short time a new product is given to prove itself is a formidable task. The crush of competitive products clamoring for attention from today's time-pressed consumer is more than most can comprehend. According to an AdAge report, an average family gets the core of its shopping needs (80-85%) met from approximately 180 SKUs, leaving only a small window of opportunity to catch the consumer's attention with new product offerings.

### *The Competitive Crush*

It's no wonder that only a small percentage of new products ever make it into the consumer's grocery cart, considering that the average supermarket has over 40,000 SKUs,

the typical mass merchandiser has over 300,000 SKUs, and over one million CPG SKUs are available across all retail channels. Compounding the problem for manufacturers is the heightened price sensitivity at both the trade and consumer level. Not only is there greater competition for the consumer grocery dollar, there is also heightened competition across categories as consumers spend more on their homes and the accoutrements with which to fill them. Since 1960 the percentage of income spent on food has been dropping steadily. CPG share of the U.S. consumer wallet dropped from 26.2% in 1960 to 15.4% in 2000, according to U.S. Bureau of Economics data.

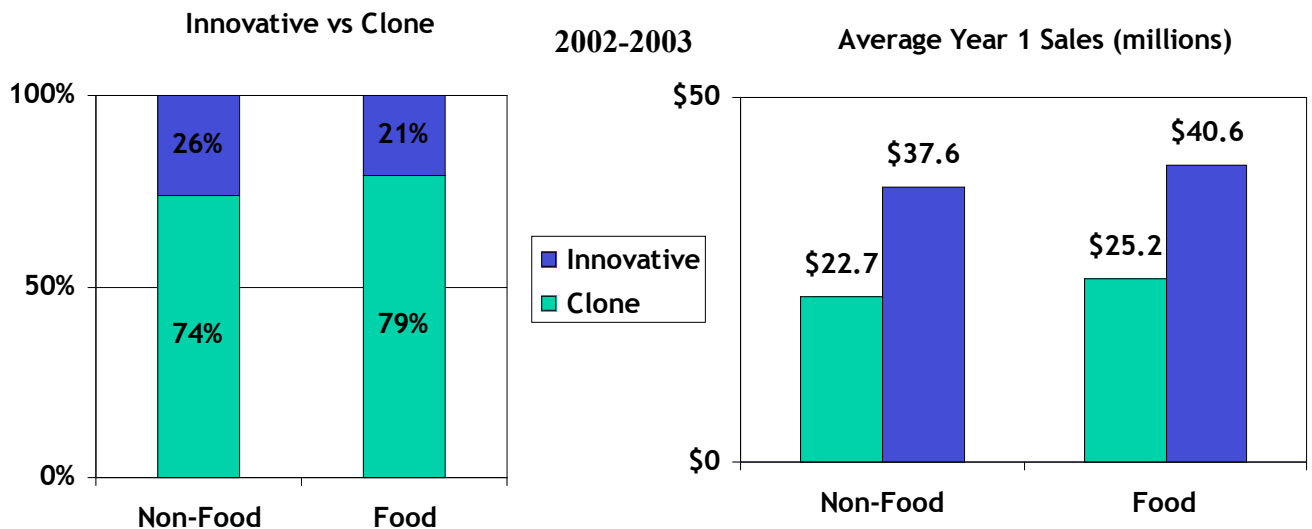
### CPG Share of Total Consumer Spending

1960	26.2%
1965	24.5
1970	24.0
1975	23.4
1980	22.1
1985	19.0
1990	18.4
1995	16.7
2000	15.4

#### *The Innovator's Reward*

Yet the market rewards products that it deems innovative, granting a significantly higher level of sales for first-market entrants versus the follow-on clones. Of the new food and non-food products introduced in 2002-2003, roughly 25% of them were judged to be "innovative" by IRI in its annual new product Pacesetters reports. For those products designated as innovative, average year one sales were roughly \$40 million, but for those tagged as clones, year one sales were only in the \$20 million range. As in most industries, the innovator bears the brunt of the market risk, but also reaps the greatest reward.

### Total Food & Non-Food Pacesetter Product Introductions



## Increase the Top Line or Erode the Bottom Line

It's no surprise that generating top-line growth is the number one challenge for CPG manufacturers today. In the 13<sup>th</sup> annual ACNielsen Survey of Trade Promotion Practices conducted in 2004, 90% of manufacturers and 98% of retailers identified new product introduction as a critically important issue. And shareholders agree. Product innovation and the revenue it generates is the key to top-line growth. In fact, on average, the companies that are in the top 20% of Fortune's list of superior innovators deliver double the returns of other companies in their industries.

While most firms understand the importance of innovation, few are as effective or efficient as they need to be in generating new products. Firms must find a way to generate more ideas, make better investments, and bring new products to market more quickly. They must develop a new formula for new product development.

## The Changing New Product Development Process

In order to deal with the pressing market forces converging on today's CPG firms, most of the top innovators are critically challenging their approach to new product development. They have recognized the need to focus their attention on ideation and innovation, and have added new resources to engineering, product design, marketing, and research and development. They have also become more aggressive about seeking innovations outside the firm, actively acquiring new ideas and technology from smaller companies. And they are abandoning traditional research techniques and conventional wisdom by embracing new tools and technologies that replace simplistic measurement-centric research with creative concept development and optimization.

Across the industry, the traditional protracted new product development process, which generally begins with an ideation phase, followed by concept development, prototype creation and screening, product development, and finally launch, is being reevaluated as firms look for ways to winnow product winners from losers sooner. Many firms have reengineered their sequential "stage-gate" approach to new product development, with its inefficient "test/iterate/test/iterate" pattern of refinement, and incorporated new technologies to speed up processes. The result? Time to market in most CPG firms has been cut in half or better. But that in itself hasn't been enough to guarantee that the *best* products are the ones being launched.

Research by Booz Allen Hamilton shows that only one new product idea in 58 actually makes it through the new product development process and yields a successful new product. With traditional research methodologies, there's no way to know if the ideas selected for testing are truly the best ideas to begin with, or if the product that is launched is the one that consumers prefer most. Successful innovation isn't just about coming up with a great new idea; it's also about executing the idea with a full understanding of the consumer's needs.

Voice of the Consumer research is widely touted as one of the most critical inputs to successful new product development. “Whether they are selling cars, toys or fast food, companies are tapping consumers as never before to help them create new products,” notes Melanie Wells in the February 14, 2005 cover story of *Forbes* magazine.

“Should companies let a bunch of amateurs design their products?” she asks. “Maybe it’s an act of desperation, but they have concluded that instant feedback is one way to cope with the pressure for shorter product cycles and with the high failure rate of new products,” she concludes.

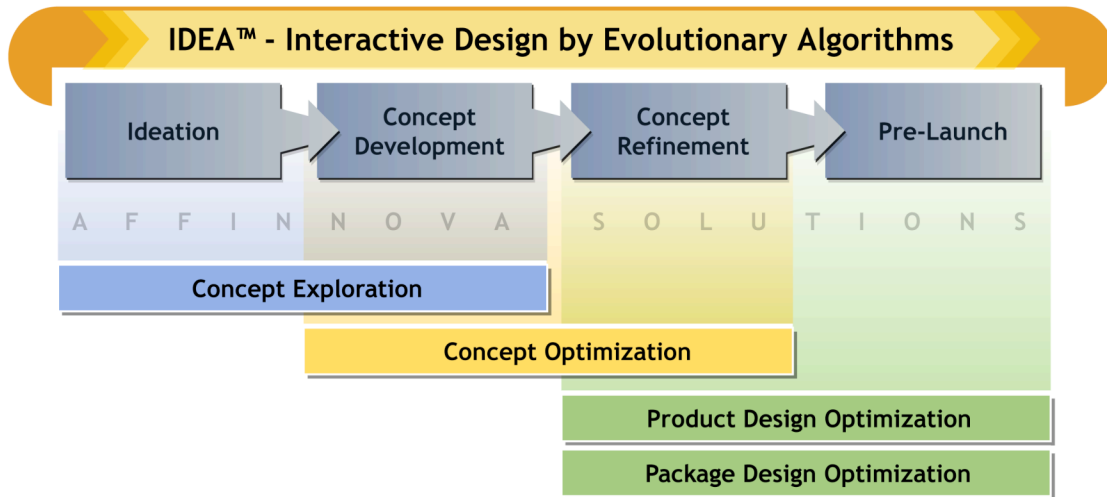
Conducting research with consumers has always been part of the new product development process. But current research methodologies don’t deliver the full spectrum of consumer input needed in today’s hyper-charged marketplace. They are not collaborative or holistic, and due to time and cost constraints, are unable to accommodate exploration of the entire set of ideas being explored. What’s needed now is a methodology that allows enough consumers to view enough concepts in comparison with enough competitors to determine if a product will be a success in the marketplace.

### The Affinova Solution

Most current market research methodologies are too narrow to allow a vast field of ideas to be explored by a large number of consumers early in the new development process. Yet, the single best way to improve new product market success is to ensure that the right ideas are selected as early as possible in the process for further development. This prevents firms from wasting time and resources on developing products in which consumers have little or no interest.

Affinova’s IDEA™ (Interactive Design by Evolutionary Algorithms) technology enables the voice of the consumer to be heard at the earliest stages of the new product development process, allowing exploration and optimization to occur in a single step, and eliminating the downstream “trial and error” cycles which waste time and squander resources. IDEA™ enables exploration of large search spaces, in which thousands, or even millions, of ideas can be explored by hundreds of consumers. The process helps identify complex synergies between concept features and attributes and yields the *optimal* result—the idea or concept that is most preferred by consumers.

Affinova offers a suite of applications that utilize the IDEA™ technology at the early stages of the new product development cycle. Once IDEA™ has identified the result most preferred by consumers, it can be validated with a simulated test marketing exercise. A monadic test to determine purchase interest, product usability (as well as likeability and believability), and purchase intent can be conducted; and a discrete choice exercise can be applied to explore price sensitivity and assess competitive positioning.



While no methodology can guarantee that a new product will be a success, Affinnova's IDEA™ technology, paired with a follow-on simulated test marketing exercise to assess volume potential, can eliminate many of the risk variables associated with a new product launch. IDEA™ will not only help accelerate time to market, it will also help ensure that the right product makes it to the market in the first place.