

Optima[®]

The Science of Product Optimization





Is your **PRODUCT** as good as it can be?

Can it command a premium price?

Can it withstand competitive attacks?

Decision Analyst's Optima® product testing system can answer these questions and identify product changes that will lead to enhanced consumer acceptance.

Why Test Your Products?

Achieving clear-cut product superiority in a category is the surest way to build brand share and boost profitability. Better products can command higher prices.

Product Testing Applications

- Achieve product superiority over competitive products.
- Monitor the potential threats posed by competitive products.
- Cost-reduce product formulations and/or processing methods.
- Monitor product quality from different factories.
- Predict consumer acceptance of new products.
- Determine the optimal set of ingredients or features, given a price point or profit goal.



A Moving Target

Consumer preferences are a moving target. Consumer tastes, needs, and wants evolve over time. The competitive environment changes. Technology improves. That's why product testing must be repeated at regular intervals.

Optima® is a standardized monadic system, so each product is tested in exactly the same way. This allows results to be compared across tests and over time.

The Testing Environment

"Real environment" testing (i.e., testing a product where it is typically used) is almost always the most accurate method. For example, it is best to let consumers use food products in their homes, rather than tasting them in a laboratory or test kitchen.

CPG Products We Have Tested:

- Baby products
- Beer
- Body washes
- Breads
- Candies
- Canned goods
- Cheeses
- Chilis
- Coffees
- Deodorants
- Desserts
- Detergents
- Facial cleansers
- Feminine products
- Frozen foods
- Fruit juices
- Hair-care products
- Jellies
- Ketchup
- Makeup
- OTC medications
- Processed meats
- Refrigerated-food products
- Salad dressings
- Salsas
- Snack foods
- Soaps
- Soups
- Toothpastes



Optima® Product Testing

Typically, a representative sample of category users (150 to 200 households) are given a test product to use in the home for a few days. Then these consumers are asked a series of questions about the product. Question topics include:

- Overall rating
- Likes/dislikes
- Diagnostic attribute ratings
- Component evaluation
- Purchase interest
- Pricing

Based on normative data, internal diagnostics, and the Pii® mathematical model, we can tell if the product is optimal or not, and we can determine what needs to be changed.

Pii® Analysis		
Diagnostic Variable	Pii® Score	Indicated Action
Too sweet	18.65	Reduce sweetness
Too dark in color	14.72	Make product lighter
Too soft	12.95	Make product firmer
Not enough salt	9.48	Add some salt
Not enough crunch	5.23	Make product crunchier

Types of Product Testing

Decision Analyst favors monadic testing of products (i.e., each consumer evaluates only one product), but we also design and execute paired-comparison, sequential-monadic, and protomonadic tests. Sensory research is conducted to support new product development efforts; qualitative research is used to explore product refinement possibilities.

Optimization Methods

In addition to Pii® analyses, response surface and choice modeling analyses are the primary optimization techniques. Experimental designs and simulation models are used to optimize products. By testing chosen subsets of product possibilities, response surface and choice modeling can simulate and predict consumer preferences for hundreds of product possibilities. The resulting equations are used to build a DecisionSimulator™ so that “what if” scenarios can be fully explored and understood. The DecisionSimulator™ helps demonstrate cause and effect as inputs are changed and outcomes vary.

Private Testing Panels

If you conduct more than 25 product tests per year, then it may make sense to build a private product testing panel consisting of category users and your customers. We have the staff, software, and systems to build and operate online panels to support product testing, sensory research, and in-home usage testing.

Product Quality Monitoring Systems

A product test reveals a product's performance at a point in time, but products are flowing from factories to warehouses to retailers all the time. Decision Analyst designs and implements on-package or on-product monitoring systems so that consumers can rate products on a continuous basis. Quality-control statistical systems are used to create alerts when a product's scores deviate from its product-quality target range.

Product Clinics

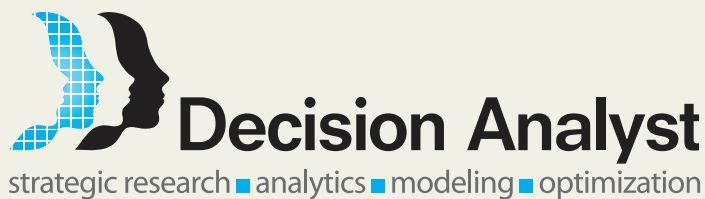
Durable goods are evaluated via head-to-head comparisons of major brands, as judged by target market consumers. We have tested hundreds of durable goods, including the following:

- Airplane seats
- Automobiles
- Comforters
- Computers
- Electronic toys
- Frying pans
- Games
- Gaming devices
- Hotel rooms
- Microwave ovens
- Power tools
- Smartphones
- Software
- Televisions
- Washing machines
- Websites



Why Decision Analyst?

Decision Analyst is a recognized leader in product testing and optimization. Its staff has evaluated more than 1,500 different products during the past three decades. Decision Analyst maintains online panels with over eight million consumers worldwide. The firm has many staff members with extensive experience in the conduct and analysis of product tests and optimization studies.



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