

The bottom line? Organizations are using innovative sensorial brand research methodologies to build an inventory of unsurpassed consumer and product knowledge for product design improvements – much to the delight of anticipating consumers.

The Nuts and Bolts of PDQ

Building and Using Product Knowledge from Perceived Design Quality Research

The sales floor can be a dangerous place for a product. From an emotional standpoint, a product must deal with the highs of being chosen as “the one,” or the lows of being passed over for a competitive model. More importantly, however, from a physical standpoint, products usually get “beat up” from consumers who merely want to take it for a test drive. With all the care they would take at home, consumers turn knobs, open and close doors, press buttons, grip handles and pull drawers. In other words, they overturn knobs, slam doors, punch buttons, jerk at handles and yank drawers – all in attempt to find out about the quality of the appliance they are about to purchase.

More than just a simple consumer-product interaction, this intense, close inspection by the consumer – often down to the nuts and bolts level – makes or breaks the sale. In the mind of the consumer, such things as “thin” door material, “wobbly” buttons, “tinny” sounding drawers and “plastic” feeling handles mean less quality and more emotional lows for the product – regardless of the brand name it has stamped on it.

So how do designers obtain measurable physical parameters that can be used in the product development process to improve the perception of quality among consumers? You have them do the same thing they would do on the sales floor if they were interested in purchasing the product ... and then you collect the data.

“Quality has to be caused, not controlled.”

- Philip Crosby

Quality is Intrinsic

If you take away brand, price, store environment, sales representatives and point-of-purchase materials, you are left with merely the perceived quality of the product – as naked and vulnerable as the day it was born. However, if the product can stand on its own quality legs without those crutches, think how much further along the product is once those things are added.

“Quality also marks the search for an ideal, after necessity has been satisfied and mere usefulness achieved.”

- William A. Foster

But what is perceived quality and what do consumers use to make quality judgments? Perceived product quality can be defined as a consumer's judgment about a product's overall excellence or superiority.¹ Cue utilization theory says that products consist of an array of cues that serve as surrogate indicators of quality. These cues can be both extrinsic (cues not part of the physical product) and intrinsic cues (physical components).

Design teams certainly use extrinsic cues to provide an overall framework for product design; however, they find intrinsic cues most useful in their design process. For example, although the price point may suggest the types of materials used and the overall size of the product, it doesn't tell them how specific physical components should be designed or redesigned. Should it have a small or large handle? More than two lights or fewer than two lights? Buttons or dials or both? And don't forget the all important question, "What's most important to consumers?"

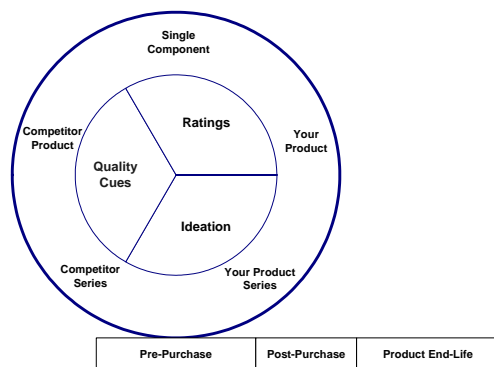
Investigating intrinsic cue quality with consumers lets design teams know:

- What the most important intrinsic design cues are;
- What consumers look for most/least on the sales floor;
- What components they should concentrate their initial design dollars on; and
- What components they should concentrate their redesign dollars on.

So what tools can the design team use to find out the intrinsic cue quality of their products? The answer lies with PDQ.

The Wheel of Quality Fortune

The wheel of perceived quality diagram describes the types of data that is necessary to collect, what to collect them on and when to collect them to uncover the true nature of a product's quality.



¹ Jacoby & Olson, "Perceived Quality," 1985.

The inner pie outlines three types of data that are needed to fully understand a product's perceived quality:

- Ratings – answers the question of where the product is in the race compared to other racers;
- Quality cues – answers the question of what physical components are most important to consumers; and
- Ideation – answers the question of how specific components need to look like to be thought of as a quality design.

The outer ring shows where the focus of the inner wheel could be concentrated on, such as:

- A single product component;
- Your product;
- Competitor products; and
- Product series.

Like with all good research, exact methodology tools depend on what questions you want answered. For example, if you only want to know where a single product component stands in the quality race, it is possible to gather perceived quality ratings from that product and competitive product's component.

However, fully understanding the perceived quality of a product can be achieved by defining a research methodology that takes the entire wheel into account. For example, quality cue prioritization, product ratings and perceptions can be gathered for your product compared to competitor products from the overall level down to the single component level. Such a methodology could include:

- Allowing a relatively small number of target users to interact with every component of your product – as well as four or five other competitor products; or
- Obtaining perceived quality numeric ratings of specific design components from a visual perspective (design, material and size considerations) and then from a tactile perspective (handle size, shape and feel, drawer open and close, push button sound, etc.).

A Matter of Time

Answers to perceived quality are most rewarding when methodologies explore customer experiences on the sales floor. After all, that's where the bulk of the purchase decision is made. However, it is entirely possible to conduct research during the Pre-Purchase Phase on products that haven't been built yet, during the prototype stage or on the cusp of a product launch. Taking the quality temperature of future

competitor products and determining specific design characteristics gives design teams direction in designing high-quality products.

Once the perceived quality methodology wheel rolls along the time continuum, however, all bets are off. It is entirely possible to shift the research focus from the pre-purchase sales floor to the post-purchase home environment. What happens to a product's perceived quality when consumers initially have these in their homes and use it for awhile (Post-Purchase Phase)? What happens to consumers' perceptions of quality after they've had the product for a long period of time and are looking to replace it (Product End-Life Phase)?

The Perfect Product

A design team's number one consideration has always been, and will continue to be, the fulfillment of the wants and needs of its consumer – its target consumer. The design of the perfect product is an ongoing effort to determine those intrinsic cues that consumers most look for in a quality product and then spend team resources to make it happen. Qualitative research techniques that gather quality perceptions by allowing consumers to carefully inspect products just as they would on the sales floor helps deliver “wow” design factors. These get the design team one step closer to customer expectations of that perfect product.

Think using the research methodologies outlined on the Perceived Quality Wheel will lead to a dangerous path of designing products that all look the same? Think again. Car manufacturers for years have used this type of sensorial brand research to increase the quality – and the overall design appeal – of their cars. And the design innovation keeps rolling ... from the body of the car right down to the nuts and bolts.

“A designer knows he has arrived at perfection not when there is no longer anything to add, but when there is no longer anything to take away.”

- Antoine de Saint-Exupery

About the Authors

Andrew Zernia is a research consultant at Marketing Partners. His areas of interest and experience include user research, user-centered design and usability testing. He also has developed and executed both quantitative and qualitative product satisfaction, customer loyalty, association, health care, information technology and manufacturing industry studies. Methods for conducting research include in-depth, one-on-one interviews, web, mail, e-mail, fax and telephone. Andy holds a master's degree in business administration from Keller Graduate School of Management at DeVry University.

Renee Catania is a qualitative research specialist at Marketing Partners. She has developed her skills as a focus group moderator and a marketing project manager to coordinate user research and usability testing research. Her capabilities and insights as a qualitative research professional are valuable to clients in product development, market investigation and customer satisfaction improvement. She is a graduate of Michigan State University, where she earned her bachelor of arts degree in communications with an emphasis on business and corporate strategy, public relations and economics.

Richard Lukey, Jr. is a strategy consultant and heads the market research practice at Marketing Partners. In addition to designing and executing countless market and member research studies, he has helped develop brand management and new product launch strategies for over 50 products for many Fortune 500 companies. Lukey holds a master's degree in advertising from Michigan State University.

Steve Reed is president of Marketing Partners, Inc. He combines advertising agency creative experience with research-based strategic orientation and more than 30 years of marketing, strategic planning and research experience. He has worked in all areas of for-profit and not-for-profit planning, and marketing and communications, specializing in consumer packaged goods and consumer durables.

Marketing Partners, Inc., is a research, strategy and business services organization serving consumer packaged goods, consumer durables, associations and health care clients across the United States. The firm's focus is on business improvement, especially in the areas of:

- Customer Focus, which includes using research to create market-driven products and processes designed to brand organizations and sustain customer and member loyalty; and
- Organizational Advancement, which views the organization itself as the product and focuses on developing both strategy and organizational capabilities including custom-designed strategic and breakthrough planning processes.

Renee Catania (269) 934-3713
(racatania@mpicompanies.com)

Steven Reed (269) 934-3725
(sareed@mpicompanies.com)

2919 Division Street
St. Joseph, Michigan 49085

Phone: (269) 983-0016