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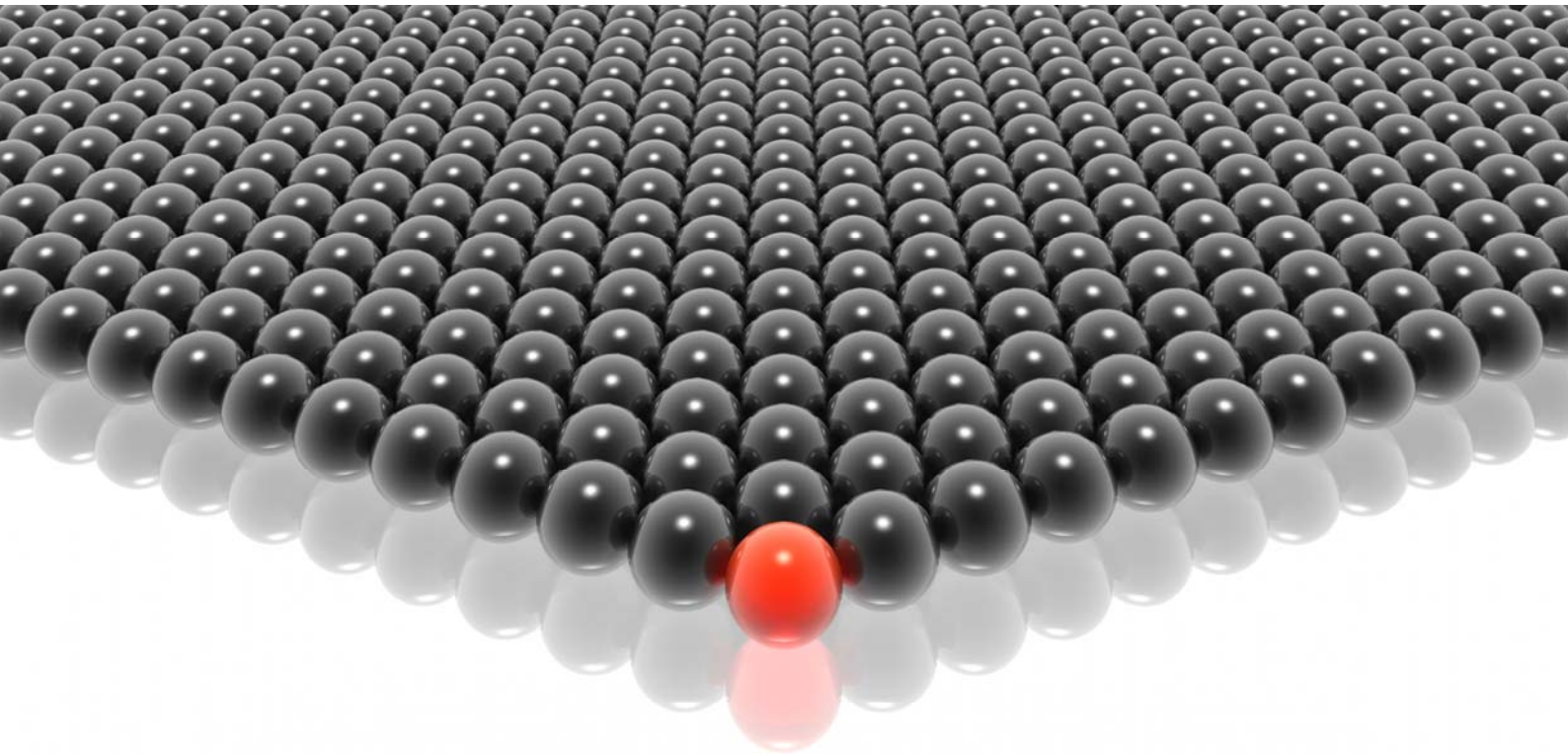
The Marketer's Guide to Comparison Testing

How to make your products stand out from the crowd



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Rigorous comparison testing by an independent laboratory helped Texas Instruments gain a competitive edge in the market for DLP® projection technology

Introduction

If you've been shopping recently for a new car or a flat-screen TV, there's a good chance that you've sought out side-by-side comparisons of different makes and product types in consumer publications or perhaps on e-commerce Web sites. Given the abundance of data now widely accessible via the Internet, consumers make more of their buying decisions with hard comparative data rather than always relying on a handful of loose facts and second-hand anecdotes.

Comparison testing can provide the critical information you need to communicate your product's competitive advantages.

Good, better, best.

To be sure, the best product comparisons are those that mix and match generous lists of product features, performance specifications, and price points. But some of those sites have a characteristic that you probably prize even more: their independence from the vendors whose products they describe. Now that consumers have become conditioned to research the 'good, better, best' in all product categories, product marketers must employ new tactics to stand out in the clutter of competition. In order to create effective marketing plans and manage them properly, companies that have developed new products or that are upgrading or re-launching existing products need to know how their products compare to industry benchmarks or to what competitors are selling.

Comparison testing can provide the critical information you need to communicate your product's competitive advantages. Whether as a proactive or reactive tool, test results may quickly blunt competitors' claims, especially in highly contested markets where profit margins are paper-thin. They may make the difference between "middle of the pack" status and market leadership, helping to leverage known advantages in product features and functions or to tease your products' incremental edge in a market where all products perform much the same. And test results certainly enable you to get more for your marketing spending.

Overview of Comparison Testing

Essentially, the objective of comparison testing is to be objective. It provides an unbiased, unambiguous means of determining how several similar products perform related to their intended function. Third-party comparison testing is used in a wide variety of industries, gauging features and performance of batteries, dishwashers, refrigerators, electronics, and a host of other products.

A comparison test often involves a head-to-head comparison to determine a product's performance, ease of use, durability or safety.

A test program on food freezers, for example, may include:

- A review of several freezers' features and of their manufacturers' performance claims
- Tests to determine how accurately temperatures can be controlled under different conditions
- Energy consumption tests under different conditions
- Freezing tests to determine how much food can be safely frozen
- Test to see how long the appliance will stay cold if the power fails
- User tests to determine ease of use
- Listing and ratings of features which make an appliance easier or more difficult to use when compared to others.

With test results in hand, you as a marketer are then able to make hard-hitting claims for your products – "the world's quietest…", "the most durable…" and so on – with independent data to back you. The benefits are not limited to differentiation and promotion; you can also use results to rebut competitors' claims or – in cases where tests expose feature or performance shortfalls –you can use this data to improve your product.

Comparison tests also help you manage your resources and achieve stronger returns on your marketing programs – key concerns for all marketing professionals under pressure to continually increase return on investment.

How Texas Instruments put Comparison Testing to Work

Texas Instruments Inc. had something of a problem. Its DLP optical semiconductor technology had been a sensation when it was unveiled and TI had gone on to achieve striking success with its DLP products in a range of optical products – from HDTV and digital cinema projectors to small portable digital projectors. It was in the portables segment where TI had cornered more than half of the available market worldwide since its DLP data projector product launched.

To better defend its position, TI opted to run independent product tests that would gauge the performance over time of DLP and LCD technologies. "The business driver was to help us to compete with an incumbent technology. We wanted to have some points of differentiation," explains Michael Guillory, worldwide marketing communications director for TI's DLP Products division.

The study was conducted at the Rochester Institute of Technology's (RIT) renowned Munsell Color Science Laboratory. Texas Instruments selected and purchased off the shelf the five LCD and two DLP projector models used in the RIT tests. One sample of each model was evaluated and each sample ran continuously. In all cases, RIT was testing for a phenomenon that TI calls "colour decay" – a gradual distortion over time of the colours rendered by the projector.

After the study was complete, TI wanted to expand the study to add testing that included ambient temperature regulation along with a wider variety of cycle time testing.

TI commissioned Intertek, an independent testing organisation, to perform a second set of tests. "We wanted to expand our testing of DLP technology to include additional cycle times to strengthen the value of the testing." says Guillory. Again, the data projectors containing both display technologies were picked by TI and purchased on the open market by Intertek. Fifty-four were used in the study: three samples of each of the six models were run on each duty cycle. "We used multiple brands of projectors – we did not want to imply anything about a particular model or particular brand," adds Guillory. As such, no model numbers were used as identifiers. At the same time, TI did not dictate the methodology for the tests.

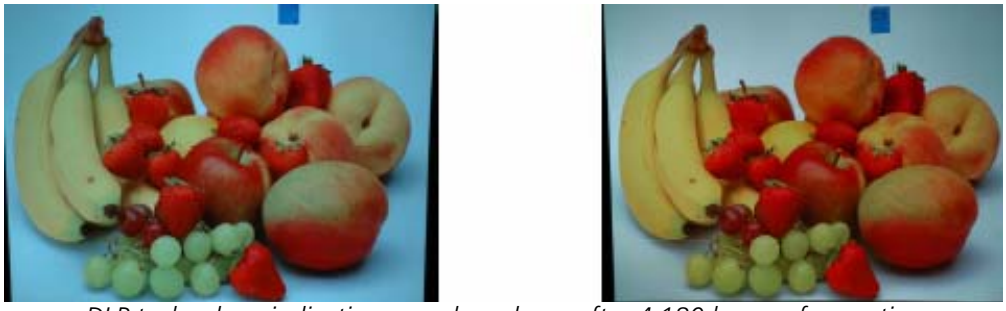
Each of the models chosen was operated on three different duty cycles. The non-stop duty cycle formed a baseline of data. Then, Intertek developed a 5.5 hours on, 2.5 hours off cycle to mimic the conditions typical in a classroom, along with a 1.5

hours on, 2.5 hours off cycle to reflect how a data projector is used for business presentations. The projectors were maintained by Intertek and subjected to a number of colour and light measurements including light output, light output uniformity, full-on/full-off contrast ratio, checkerboard contrast ratio, colour chromaticity, and colour uniformity. All of the data for this study was independently collected by Intertek. Still picture images were also displayed along with the various test patterns and recorded using a still picture camera throughout the study.

The Outcome of the TI Tests

Halfway through the Intertek study, most of the LCD projectors had already started to show measurable deterioration in display characteristics. In fact, the degradation was quite visible. Although the exact amount of time before deterioration varied, it generally appeared to occur within 2,000 and 3,800 hours of on-time operation. The deterioration was evident in each of the LCD models under test, regardless of duty cycle. Meanwhile, the DLP technology maintained a fairly consistent and uniform performance level throughout the study, with none of the DLP projectors showing any significant visual or measurable deterioration in their display characteristics.

LCD technology demonstrating colour decay after 3,470 hours of operation



DLP technology indicating no colour decay after 4,180 hours of operation

As soon as TI received the interim report from Intertek, it was clear that it had the marketing muscle needed. Packaging the information as a news announcement at a prominent industry trade show and distributing it to leading industry media and Web sites, TI received substantial press coverage about the long-term benefits of DLP technology. The "colour decay" theme gained traction with those whom TI most wanted to influence: OEM design engineers at the projector manufacturing companies. And the company began to hear of customers selecting its product because of its demonstrated reliability.

Upon completion of the project, TI's DLP Products division had all the data necessary to substantiate its own technology claims, to gain a competitive advantage and strengthen the business unit's brand. With the bulk of the new messaging already distributed, TI focused on tweaking the marketing program, developing some ads for the education market and refining the DLP communication to consumers who could be in a position to select data projectors that used the optical technology.

The Benefits of Outsourcing Comparison Testing

Companies such as Texas Instruments that opt to have their product comparison tests carried out by third-party laboratories gain one overriding advantage: The test results are recognised as unbiased with consumers, media and retailers.

Manufacturers also gain much in terms of operational efficiencies. On top of the benefits of outsourcing of actual test work streams – an opportunity to free up valuable engineering resources and space – there is the assurance that comes from knowing that the third-party lab must keep its equipment calibrated to the highest standards and documents all of its processes continually.

The best independent labs also have long lists of accreditations that prescribe testing and quality control measures that must be followed. They are also likely to have global networks of labs so that resource constraints and bottlenecks never become an issue. The industry-leading labs will also invest in the latest equipment and testing processes. And they will have a client focus that goes far beyond the basic transaction of test data. In most cases, the best independent labs become de facto extensions of their clients' marketing and engineering departments.

Conclusion

Product markets can be fickle and unforgiving. Without a base of hard facts on your product's comparative features and functions, there is a real chance that it will be outsold by rivals – regardless of the accuracy of their claims. These days, product performance testing has to be a formal element in an orchestrated program of brand-building and competitive differentiation. Facts speak loudly to both consumers and businesses – and independently verified facts speak loudest of all.

Marketers in industries as diverse as appliances and industrial equipment are turning to third-party test labs to establish the facts with which they can generate competitive advantage for their companies, push back on rivals' claims, fine-tune their advertising and other publicity campaigns, and get higher returns for their marketing spend.

For more information on Intertek's performance testing capabilities, products covered under our scope of accreditations, or to begin your project right away,

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