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Margin Master

Design for the Bottom Line

By Erik Sherman
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PC standardization helps control costs, but it often results in different OEMs creating identical computers. That's why frog design, a Sunnyvale, Calif.-based industrial design and branding firm, says that **design aesthetics can help companies differentiate their products** for superior bottom line benefits.

Outstanding design is usually associated with consumer electronics and giant corporations. But **OEMs of all sizes can benefit from using aesthetics** to "represent the personality of brand, but tuned to the user," says frog strategy director Adam Richardson. When design is done right, companies can differentiate themselves from competitors, expand market share, and even increase unit margins.

Making Aesthetics Pay

Aesthetics works well when it taps a visual language of symbols that **evoke emotional responses from people**. Designs then speak subconsciously to customer expectations, past experiences with similar types of products, and even their culture. For example, the appearance of a PC or laptop can suggest how easy it is to use; how well suited it is to its task; how well it's made; what the manufacturer is like; and why it is worth more than the competing unit on the store shelf.

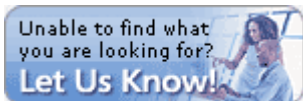
When users perceive an advantage, OEMs see the benefits in one of two ways. **One is increased market share**. Over a year or two, a product that speaks to a particular category of user can draw customers away from competitors because its appearance promises important benefits that other products seem to lack.

Iconic and distinctive design can also **raise perceived brand value**. When this happens, Richardson says it can directly translate into prices that are 10 to 15% higher than before. OEMs will find,

Recent Award-Winning PC Designs

Product	Type	Manufacturer/ Designer
ZMAX-DP	1/6 sized workstation	WILL USA Corp.
Ultra-Portable Notebook	Notebook supporting ultra-wideband communications	Compu-Technics, Inc.
HP Digital Entertainment Center	Home media center	Hewlett Packard Co.
MEGA Book M510A	Notebook with changeable frame	MSI
Qosmio G15	Laptop digital entertainment center	Toshiba America Info. Systems

Source: Consumer Electronics Association: CES Innovations 2005



however, that they can choose one or the other of these benefits -- but not both. That's because increased prices will act as a brake on expanding market share.

The Language of Aesthetics

To apply aesthetics properly, OEMs must first understand some basics. For example, research into customer motivation is mandatory. But Richardson warns that rushing into focus groups can send companies in the wrong directions. Focus group participants feel pressured to be articulate, and so may falsify their responses to be able to sound smart. It's easier for people to explain why they would like the conservative and usual rather than the unconventional. So companies should **separate how people feel from why they feel that way**, giving participants a chance to give their impressions without pushing for an explanation.

Aesthetics must also be practical and bound to a product's use. There are big differences between a PC for kids or a PDA that is a fashion statement and an industrial server that must "look like you could set off a nuclear bomb next to it," Richardson says. Not surprisingly, different uses place different constraints on design. For example, a notebook must be light, fit into a briefcase, and be able to balance on a lap. Any effective use of aesthetics would have to take each of these factors into account.

OEMs must also grasp cultural issues and trends that can change a design's effectiveness. Americans are often "turned off" by the type of design aesthetics that are popular in Europe, for example. In Asia, successful design can range from jewelry-like sensibilities that could appeal in other parts of the world to consumer offerings that would be considered "over the top" in the U.S. or Europe -- for example, cell phones that look like stylized animals. An OEM selling in various global regions will likely **need to adapt its design aesthetics** through geographically-targeted models.

10 Steps to PC Design Excellence

1. Analyze your company, brand and competitive position
2. Determine strategic needs and objectives
3. Analyze consumer and purchaser beliefs
4. Determine your company strengths and weaknesses
5. Brainstorm around concepts
6. Explore how to differentiate your company
7. Develop and examine multiple concepts
8. Create a brand identity
9. Begin executing on product and packaging
10. Develop and execute a marketing plan, including signage and collateral

Source: frog design

Also, **today's aesthetics might not work tomorrow**. After a decade-long "explosion of exuberant forms and colors and materials," Richardson says he now sees a trend back to greater simplicity. It's a reflection of feelings that technology is overpowering and making life more difficult, not less.

Once OEMs know the trends, they can find **different solutions to make designs appealing**. For example, companies in North America and Asia have returned to simple geometric shapes for PCs. Yet in Europe, OEMs are incorporating such materials as wood, ceramics and cloth into computer cases in an organic way for a more soothing context that still allows buyers to express their personalities.

Making the Design Work

Historically, larger companies with greater resources are the ones that have displayed outstanding design. But according to Richardson, even smaller and mid-sized OEMs can invest wisely in aesthetics. The **key is finding a knowledgeable design firm for assistance**. Leads for qualified firms are available from national professional design associations. However, an OEM should be sure

that the firm has experience with PCs, because any PC design must support numerous standard hardware technologies and software configurations in order to run Microsoft® Windows® XP and associated applications properly.

The design company's **experience should also be ongoing and up to date**. The reduced space and cooling needs of the emerging BTX form factor will loosen some long-standing PC constraints and, as a result, provide new opportunities for aesthetic innovation.

Design costs will vary widely by region. In the U.S., for example, the **cost to design a single model can easily run into the low five figures**. A firm can provide "straight up styling" for less than that, Richardson says, but the extra money frees a designer to "assess your brand, the market needs, what your competitors are doing, and the trends in the market." OEMs can save money by building related designs, thereby amortizing the expense across several models. Most of the initial effort and expense is in research and developing underlying concepts. Once these are understood, design execution across additional models costs far less.

Although design costs are significant, OEMs can amortize them so that the incremental cost per unit is low. **The key is enough volume**. Richardson suggests units of thousands or even tens of thousands will be necessary to reach the necessary economies of scale. Some design elements, such as multiple colors and materials, can drive up manufacturing costs, though smart designers can often manipulate form, shape and surface for about the same material costs as is currently spent.

According to Richardson, OEMs also have another option. Rather than focusing on per-unit costs and volume, **they can try to create a "halo" product** -- a high end and expensive offering that, with proper marketing, creates the positive associations for customers. What the halo product does is to generate interest in a lower end product sharing the same "aesthetic language," thereby allowing users to buy into the brand at a more attractive price point. When this strategy succeeds, it doesn't matter if only a few units of the halo product actually sell. Because of the association with the more expensive sibling, the OEM can realistically see a 5% premium for the lower-end PC over a competitive machine.

Once OEMs realize that aesthetics are a palpable, and powerful, tool for managing brand and customer expectations, they can **take a new look at how to generate a bigger profit** -- by design.

Three Ways Design Can Increase Margins

Strategy	Expected Results
1) Boost margins of normal units when produced in volume	10 -- 15% price increase
2) Expand market share	Incremental margin increase from additional sales
3) Leverage the high-end "halo" product	5% price increase on introductory level products using a similar design to a high end "halo" product

Source: frog design

For More Information

Aesthetic Intentions in Product Design

A professor at the Norwegian University of Science and Technology examines potential guiding principles for aesthetics and product design (pdf document)

Aesthetics

This Web article offers some basics about aesthetics and how it plays into product design and interacts with ergonomics.

An Evolutionary Approach to Innovation

In *Fast Company* magazine, Michael Tchong and Richard Watson write about applying the idea of Darwinism to business ideas for greater creativity.

CES Innovations 2005 Awards Honorees

Product award winners at the most recent CES show.

About frog design

frog designs (www.frogdesign.com) is a well-known design company that fulfills the business needs of its clients while appealing to the emotional desires of consumers. The company's industrial design, mechanical engineering, and OEM liaison and logistics teams create award-winning designs that utilize the cutting edge of technology and usability expertise to position its clients ahead of the competition. frog's client work continues to set new standards in the world of digital innovation and its related brand work typically includes everything from marketing collateral and packaging, to digital media presence for new products.

About the Author

Erik Sherman is a journalist and photographer whose technology work has appeared in *Electronics Design Chain*, *Electronic Business*, *Electronics Movers and Shakers*, MIT's *Technology Review* and *Newsweek*.

Have a question? Want more information? Contact the writers and editors at oemedit@microsoft.com.

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