

The Washing Machine That Ate My Sari—Mistakes in Cross-Cultural Design

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“At purchasing power parity exchange rates, the developing countries as a whole would, in recent years and according to growth projections for 2008 and 2009, account for about one-half of global GDP compared to about 37 percent in the early 1960s. It must be stressed, however, that this increase is entirely due to a set of middle- and lower-middle-income ‘emerging’ countries [1].”

—Kemal Dervis,
administrator of the United Nations
Development Program

The rise of emerging markets has fundamentally altered the global marketplace. Actually, it has created a global marketplace, a vast, wired network of manufacturers, programmers, and designers who can be anywhere. But consumers and users are always local. And when it comes to developing successful products and services for these users, there is an almost infinite number of ways to get it wrong. Less than half of companies competing in emerging markets

have been very successful in meeting their goals, according to one study [2]. Bringing a new product to an emerging and possibly untapped market is seductive. But entering the market is an expensive proposition, and failure to launch can be very, very costly.

Peter Drucker said, “the business enterprise has two—and only two—basic functions: marketing and innovation.” So successful marketers and designers are the ones who must get emerging markets right [3]. Designers need to gain a deep, almost tactile awareness of the culture and context of their target market, never letting the global threads of networks and supply chains wrap them in a cocoon. It’s essential that they learn from the mistakes others have made in creating products for emerging markets.

Slicing the Wealth Pyramid
Designers have been dealing with cultural differences and

their impact on design since the first exports reached the shelves in faraway new markets. They have started to consider the distinct approaches required by emerging markets only relatively recently, however, as well as the tools and methodologies to clearly understand them. The design and marketing community is still in a dialogue about how to define the topic.

Coined in the early ‘80s by fund manager Antoine van Agtmael, author of *The Emerging Market Century*, the term “emerging markets” has proved remarkably elastic, over time describing economies as divergent as Russia and Botswana. An emerging market is generally defined as one that has not yet fully developed but that has a middle class vital enough to attract goods and services from developed—and increasingly globalized—economies.

However, the needs of the rising middle class in Shanghai or Bangalore are very differ-

[1] Dervis, K. Annual Commencement Day Lecture of the Export-Import Bank of India, 18 March 2008. *Perspectives on the New Structure of the World Economy*. UNDP. <<http://content.undp.org/go/newsroom/2008/march/kemal-dervis-perspectives-on-the-new-structure-of-the-world-economy.en?sessionId=axbWzt8vXD9>>

[2] “Innovation in Emerging Markets.” Deloitte Development LLC, 2007.

[3] Trout, J. “Peter Drucker on Marketing.” *Forbes*. 3 July 2006. <http://www.forbes.com/columnists/2006/06/30/jack-trout-on-marketing-cx_jt_0703drucker.html>

ent from those of lower-income residents of Brazil's *favelas*. The concept of emerging markets is usually too general to design a product around, sometimes even if the target market is just one country. So designers often segment the wealth pyramid into slices that fit their target market:

- Designing for the other 90 percent
- Design for the bottom of the pyramid
- Design for sustainable development
- Innovation for emerging markets
- Design for social change
- Design for global development
- Design for emerging markets (DEM)

These terms aren't mere semantic distinctions. They're fundamental to understanding who you're designing for, what the needs of those users are, how you hope to enrich their lifestyles and well-being, and why the enterprise wants to reach that target market.

Cornflakes Like Wet Paper—Marketing with Blinders On

The most serious mistakes designers make in preparing products for emerging markets usually occur before they even

set pen to paper. Failure to understand the target market covers a multitude of sins, but sometimes unfamiliarity with the target market results in a stunningly fundamental oversight.

Case in point: Kellogg's bid for a place at the Indian breakfast table.

"Kellogg's set up a branch in India and started producing cornflakes...What they didn't realize was that Indians, rather like the Chinese, think that to start the day with something cold—like cold milk on your cereal—is a shock to the system," says Indian cultural critic Homi Bhabha. "And if you pour warm milk on Kellogg's Corn Flakes, they instantly turn into wet paper [4]."

Kellogg made the error of transposing developed-market experience onto an emerging market, assuming that people in Bangalore started their day in the same way as people in Battle Creek, Michigan. Products and services created for the American or European market are not necessarily relevant to a user in India or Africa—the conditions are dif-

ferent, the use patterns are different, the thinking is different. Product ideation should reflect the fundamentally distinct characteristics of consumers in emerging markets.

That means basic product concepts may need to be completely redesigned. Kellogg's ended up pulling its cornflakes from shelves and reengineering them to stand up to warm milk.

Did Kellogg's ever actually ask an Indian what he ate for breakfast? Ultimately, the only sure way for companies to avoid mistakes is to pose the right questions. And not just those specific to a product's use, but broader, more fundamental questions that can really

[4] Bhabha, H. "A Humanist Who Knows Corn Flakes." *Harvard Magazine* 108, no. 1 (2005): 64-65. <<http://harvardmagazine.com/2005/09/a-humanist-who-knows-corn-flakes>>



inform designers about the local market:

- How will the product or service help people improve their productivity and lifestyle?
- Will it answer health-related issues or even be considered healthy?
- Will its content, function, or design run into cultural norms that will impede its adoption?

Designers need to adopt an entirely different mind-set about their target market. Only that way can they develop products that are truly resonant with the market—successful over the long term and genuinely enriching to customers' lives and to society as a whole.

That kind of research is a nontrivial undertaking. Design teams need to observe both distinct cultural practices and subtle nuances. They may need to delve into a country's history, religious beliefs, climate, geography, languages, aesthetics and, sometimes, its popular culture. Standard economic measurements like expected growth rate are certainly useful in evaluating an emerging market, but the history of emerging-market design is littered with the wrecks of product launches that foundered on subtle nuances like speech protocols or the ways dining implements are used [5].

Each question that designers, marketers, and corporate anthropologists ask—or don't ask or ask in the wrong way—may have multimillion-dollar consequences. When it comes to emerging-market product launches, the devil is often in the details.

The Fallacy of the Global Platform

As part of an aggressive

global strategy, the Whirlpool Corporation designed a single, stripped-down washing-machine platform for emerging markets. Dubbed the "World Washer," it was launched in Brazil, Mexico, China, and India, with slight feature design and styling modifications for each market to reflect local tastes. Exterior accents were added for China, for instance, where washing machines sit right in the living room and are something of a status symbol. "Delicate" was relabeled "Sari Cycle" on the Indian model.

The washing machine ended up doing very well for the company—everywhere but India. Sales in South India were notably abysmal.

With tens of millions of dollars at risk, Whirlpool dispatched a team to the subcontinent to find out what went wrong. They finally realized what was going into the machines—traditional South Indian clothing such as *lungis*, *dupattas*, *mundus*, *angavestrams*... and, of course, saris. Little more than sheets of very fine cotton or silk, six to nine yards long, the garments were getting caught, entangled, and shredded in the millimeter-wide gap between the machine's agitator and drum.

That single millimeter forced Whirlpool to completely restructure its business model and abandon its joint venture, in addition to designing a new washing machine for India. It took the company years to recoup its losses and regain significant market share in the subcontinent [6].

Because its designers did not broadly, deeply, and fundamen-

tally understand specific target markets, the World Washer failed to live up to its name. The basic mistake Whirlpool made—in a variant of not understanding its target market—was to assume that needs are the same across emerging markets.

The World Washer had been given a single, generalized, emerging-market reference point by designers with limited understanding and direct experience of the customs and modes of dress in South India. They did not ask the right questions of target users—if they talked to them at all. So critical details, like the thickness and dimensions of the clothes that would be washed, went unnoticed.

Cautionary tales like Whirlpool's have prompted an increasing number of multinationals to "get a clue" and leverage local expertise to develop contextually appropriate products. In a 2006 Deloitte study, 40 percent of the executives of companies competing in emerging markets said their products were designed locally [7]. Unilever alone has established a network of more than 68 "innovation centers" in 20 countries.

Don't Bring the Deluxe Diapers

While navigating the Scylla and Charybdis of design for more than one developing economy, designers also need to remember that segments within markets differ. Rama Bijapurkar, author of *Winning in the Indian Market*, has said that there are many Indias. "[What] confounds people about India is that everything you say about it, the opposite is also true. There are five-star hotels and abject poverty [8]."

[5] Chavan, A.L. and D. Gorney. "The Dilemma of the Shared Mobile Phone—Culture Strain and Product Design in Emerging Economies." *interactions* 15, no. 4 (2008): 34-39.

[6] Bhan, N. "The World Washer; Whirlpool Enters the Indian Market." Case study, Whirlpool Corporation, 1990. <<http://www.emergingfutureslab.com/about.html>>

[7] Coleman, G. "Breakthrough Strategies for Commercial Success in Emerging Markets." Deloitte Development LLC, 2007.

[8] Rama Bijapurkar, R. in Prasso, S. "Lessons For the Indian Market: Legions of big-name companies have failed in India. Here's how to avoid joining them." *Entrepreneur*, April-May, 2008. <<http://www.entrepreneur.com/tradejournals/article/179233933.html>>

That reality has forced corporations to reinvent their pricing-strategy formulas in emerging markets—and often to re-reinvent them. Newly affluent consumers in emerging markets are an attractive niche, but overall standards of living remain lower than in the West, gaps between the rich and the very poor notwithstanding. Even high-end shoppers have different spending behaviors from those in developed markets. Marketers and product designers cannot ignore affordability.

Wider populations in emerging markets need simple solutions with the right price point. When Procter & Gamble introduced disposable diapers into the Brazilian market, it went in with its top-end model, which failed to sell. Only after offering a less-sophisticated diaper, half the price of the top-end version, was the company able to grow the market [9].

With its booming economy and exceptionally price-sensitive market, India has taught some of the most prominent multinationals just how elusive the upper end of emerging markets can be. Levi Strauss brought its American jeans to India in 1995, not only designed but also priced as is—\$65. They were considered exorbitant, especially compared with generic jeans that seemed to offer equivalent quality. After three miserable years of rampant

counterfeiting and flat sales, Levi's had to change its pricing and design strategy [8].

Affordability is a double-edged sword. *Lo barato sale caro*, goes the saying in Latin America—"what is cheap ends up being expensive." If not designed with sensitivity to the market, low-cost products may strike target users as low-quality compromises and detract from the company's brand appeal. That appeal, regardless of price, is in the confidence it inspires. With limited incomes, "emerging consumers" are more cautious than their counterparts in the West; they would rather pay more for quality than risk product failure. The relative financial loss from an underperforming product would be far more serious.

For users in emerging markets, streamlining or eliminating complex features, without reducing core quality, results in a more attractive and affordable product—particularly when features are added with careful consideration of the market con-

text. "Getting the right product at the right price is the biggest challenge," says FutureBrands CEO Santosh Desai. "The usual approach is to strip the product of features until a semblance of affordability is attained. The trouble is that the emerging consumer, for whom every act of discretionary consumption is an act of sacrificing something essential, is looking to be seduced rather than patronized [10]."

For that reason, mobile phones loaded with games, music, and other extra features appealing to the U.S.'s youth-driven market have not succeeded in emerging markets. Feature creep, driven by the seemingly limitless appetite of developed markets for add-ons and customization, has no place in emerging-market design.

Nokia, the leading manufacturer of mobile phones in developing economies, puts years of research into the markets in which it sells. It keeps a full-

[9] Gingrich, J. "Five Rules For Winning Emerging Market Consumers." *strategy+business*, Second Quarter 1999. <<http://www.strategy-business.com/press/16635507/16583>>

[10] Desai, S. "Fendi Fashion Is Not Enough to Entice India's Poor." *Media*, 25 September 2008. <http://www.brandrepublic.asia/Media/newsarticle/2008_09/Fendi-fashion-is-not-enough-to-entice-Indias-poor/32717>



time design staff dedicated to studying the practices of users at work and at play. Recent Nokia models have featured a multiple phonebook to support phone sharing—common among emerging-market families—as well as dust resistance and a user interface in up to 80 languages. The phone is also equipped with a prepaid tracker that lets the vast majority of emerging-market users, who use prepaid service plans, keep track of their usage and call expenses.

As Desai points out, “The need is to develop products that are appropriate rather than merely cheap. Nokia created a mobile phone with a flashlight; no technological miracle, but an innovation that understood the rural Indian’s needs [10].”

Hydro Rollers and Wallet Phones—the Infrastructure Question

The extent to which well-designed mobile phones have become the telecommunications standard in emerging markets brings to mind assumptions about the technological infrastructure so easily made by designers from outside the target—as well as the ways in which contextually appropriate design can help markets leapfrog generations of technology entirely.

In thinking about emerging markets, Web designers and ASP engineers cannot take robust broadband for granted. Product designers also cannot assume that a power grid is as reliable as it might be in developed markets. That said, well-meaning Western designs for the other 90 percent feature a dispropor-

tionate share of low-technology solutions like cycle-powered, low-bandwidth B&W screens, hydro-rollers, and foot-operated water pumps [11]. These are great solutions for populations in which high technology is not yet part of daily life, but newer mobile technologies not requiring an extensive infrastructure or other dependencies are rapidly making their way into even the least developed regions of the world, and reaching “the bottom of the pyramid.”

In fact, the less developed the market, the better an incubator it can be for innovative ways of thinking about design. Unencumbered by “hardwired” networks and established patterns for product usage, new designs can far more quickly establish themselves as the standard in developed countries.

As in many developing markets, the terrestrial telephone grid in much of Africa and South Asia is not well established, and the financial services system has left many people without banks. Consequently, mobile phones have emerged not only as the communications standard, but also as a preferred financial instrument. By providing a range of near-field communications features not generally available in the West, including money transfers and an e-cash feature, mobile phone providers like the Philippines’ Globe Telecom have become a kind of shadow banking system. A new term, “wallet phones,” has sprung up to describe how the currency-free future is dawning in these “developing countries” [12].

In 2000, while the U.S. was still wrangling over hanging

chads, Brazilians were submitting their votes electronically via their own homegrown system, UE2000. Developed to perform even in the 90 percent humidity of the Amazon region, the system has been a success around the country and has since been deployed in Argentina and Mexico [11].

In Search of Emotional Data, the Bollywood Method

As designers survey the range of factors that influence product adoption—infrastructures, culture, language and dialect, purchasing power, literacy, urbanism, and terrain—entering an emerging market can seem like traipsing through a minefield. It’s not an inept analogy if one approaches design in the same old way. If the failure to understand the target market is the cardinal sin that causes so many other emerging design missteps, it is using traditional methods of design that causes designers to misunderstand their target market in the first place.

Conventional design methods are fine for conventional markets. Founded on familiar use patterns, cultural values, and market expectations, the processes and techniques keep designers well within their comfort zone. Successful design for emerging markets, on the other hand, requires radical innovation. It demands culturally sensitive and sometimes unorthodox approaches that can throw a designer off balance. But it’s only when designers transcend conventional thinking about product design that they come to really understand their target market and users and

[11] Smith, C.E. *Design for the Other 90%*. Paris: Editions Assouline, 2007.

[12] “Mobile Phones, the New Currency,” *Indiatimes Infotech*, 25 April 2007. <http://infotech.indiatimes.com/Technology/Mobile_phones_the_new_currency/articleshow/msid-1954845,curpg-1.cms>

create more lasting and valuable products.

There's a bit of making it up as you go along when you explore unfamiliar socio-cultural values, economic conditions, and climate. Only once you've started to create relationships and understand your customers can you know how to gather even more comprehensive customer data. In other words, sometimes you have to ask questions in order to know what questions to ask.

The key is to disarm users so they'll speak candidly and genuinely. Getting people to express their feelings is challenging in most settings—particularly so in cultures in which collective expression is favored over that of individuals. Specialized techniques are often needed. Tools and methodologies, such as HFI's "Bollywood Method," can be used by researchers to put the consumer at ease and to assist him in expressing his feelings.

The Bollywood Method gauges the reactions of Indian test users through the use of emotion tickets, an adaptation of the "cultural probes" pioneered by Bill Gaver [13]. Specialized methods provide inspirational insights that "reflect" the local culture of participants, cultural probes offer the immediate value of helping users express their emotions in private. Using a familiar cultural form helps facilitate this expression. The Bollywood Method employs *rasas* from the Indian performing arts—classes of emotions, from "marvelous" to "furious," at the basis of Indian dance, music, and literature.

The Bollywood Method's

probes, designed in the form of "emotion tickets" resembling movie tickets, are categorized into the nine *rasas*, each one expressed in a booklet through images and dialogue from Bollywood films. When interacting with products, customers record their feelings using the appropriate emotion ticket. They make a note of the service, technology, or product they were using/interacting with when they felt a particular emotion, as well as the reason they felt it. The method greatly simplifies the observation and expression of emotional reactions and puts a little fun into a sometimes uncomfortable process.

Doing business with the world's emerging markets requires these kinds of radical innovations in technology, business models, and design technologies.

The challenges facing designers and marketers are exciting, but it is essential they find creative solutions that really work for target users. For corporations, the stakes are greater than expanding their business opportunities. As they drive the shift toward a more sustainable world, enterprises everywhere are touching and improving the lives of people who just a few years ago were not even on their radar.

Learning from their mistakes will unquestionably help designers usher in a new era in design, unlearning what they have been doing for decades and learning to design new solutions for new users in new markets across a changing globe.



ABOUT THE AUTHORS

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She has experience in design research, conceptualization, project management, project execution, and business development. Before joining HFI, she worked as an architect and engineer in India and in the U.S. for 10 years on various residential, commercial, municipal, and industrial design, and engineering projects. She has been extensively involved in design research projects that have spanned multiple domains ranging from healthcare, education, retail, and telecommunications to information technology. Her responsibilities at HFI include management of design research projects, business development, and clients.



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[13] Gaver, W.W., A. Dunne, E. Pacenti. "Cultural Probes" *interactions* 6, no. 1 (1999): 21-29.

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