There's a romantic notion in North American business that our future lies in design and innovation, while India and China will serve as the home of low-cost operations. It's a nifty twist on David Ricardo's seminal early-19th-century theory of "comparative advantage," which explained why cloudy and cool England exported woollen goods to sunny and hot Spain, which in turn exported wine to England.

In the modern example, we get to have highly paid professionals designing innovative enhancements to products and services, while India and China have lower-skilled and much lower-paid workers churning out the products and services we design.

NO GALLEY SLAVES. The problem is that the scenario disintegrates as I ride through the streets of Hyderabad, fresh from a visit with Ramalinga Raju, Satyam Computer Services' (SAY) founder and chairman. Satyam ranks as the 20th-largest company in India by market cap and is a major global player in the info-tech services game.

My Hyderabad visit is wedged between a stop in Mumbai to visit with ICICI Bank (10th in market cap) CEO K.V. Kamath and co-managing director Lalita Gupte, and Tata Consultancy Services (5th in market cap) CEO S. Ramadorai. I also visited Bangalore to talk with Infosys Technologies (4th in market cap) CEO Nandan Nilekani.

The employees at these globally oriented businesses are not, by any stretch of the imagination, huddled over their workstations, entrusting all creativity, design, and innovation to their "First World" competitors.

TRAINING BLITZKRIEG. At Tata Consultancy Services' gorgeous Mumbai campus (think Citibank on a 23-acre chunk of Central Park), I learned about its central goal of providing customers with a user experience that delights and surprises. To accomplish this goal, Tata sends its technically educated professionals to the TCS Management Training Centre to gain a thorough understanding of how to craft the customer environment, prototype new solutions, and manage change.
At any given time on Satyam's 120-acre campus on the outskirts of Hyderabad, 1,000 staff members are engaging in intensive training. Plenty of the training is eye-glazing info-tech stuff -- "J2EE Development Using JBOSS" or "Oracle Database 10g Administration."

But Satyam also features a sequence on "Finding a Better Way," which includes "Creative Thinking, Problem Solving & Decision Making" and "Managing for Creativity and Innovation" -- hardly low-end stuff.

PASSION AND ACTION. CEO Raju talks eloquently and persuasively about the evolution of services, the disaggregation of the modern global corporation, and the preparations Satyam is undergoing to position itself for this shift. Developing talent and setting it free represents a critical piece of the puzzle. "A high degree of operational freedom helps associates exercise their creativity and expertise in approaching tasks and achieving customer delight," he says.

ICICI Bank views market share the way the former Soviet Union viewed geography: What's mine is mine, and what's yours is up for grabs. The bank is obsessed with talent -- the talent necessary to dominate banking internationally and in India, its primary market.

In talent, what does ICICI look for? In order of priority, it wants passion, perseverance, and bias for action -- not willingness to perform routine tasks in front of a terminal.

WHERE RICARDO ERRS. I'm guessing I'll hear the same story upon arriving at Infosys. India's leading companies haven't just read the design and innovation manual but also embraced and internalized it. Each is dedicated to finding, developing, and empowering creative talent. Each believes that deep user understanding is the fuel that powers creativity and innovation. Each has a CEO with a bold approach to transforming the future. Each prototypes and refines new services until users are delighted -- and then starts all over again.

Indian companies have staggering cost advantages over their international competitors, but that doesn't mean they can't also compete at design and innovation. Their North American competitors just wish that were the case. The Ricardian logic emphatically fails to apply.

Ricardo based his theory on natural endowments. Spain exported wine to England because
it had sun and England didn't -- and that wasn't going to change soon. England had a great climate to raise sheep -- and that wasn't going to change soon either.

JAPAN'S TRAILBLAZING. This hardly marks the first time Ricardian logic has been wrongly applied. In the 1960s and 1970s, common logic held that Japanese manufacturers had a "comparative advantage" in small, inexpensive cars as did the U.S.'s Big Three in large, powerful, and fancy cars.

By the 1990s it had grown clear that any comparative advantages Detroit had imagined was fleeting. Japan Inc. was exporting small and inexpensive cars, midsize and midprice cars, large cars, luxury cars, sports cars, SUVs, and pickup trucks. Japan still had its cost advantages, but it had also built advantages in quality and reliability.

More recently, a thoroughly modern industry made the same mistake. The electronics manufacturing services industry (EMS) took shape in the mid-1990s, outsourcing manufacturing of computer equipment for the major manufacturers, including IBM (IBM), HP (HPQ), Dell (DELL), Sun (SUNW), Lucent (LU), and Nortel (NT). EMS providers such as Solectron (SLR), Flextronics, SCI/Sanmina, Celestica, and Jabil made electronic equipment designed completely by the manufacturers, and initially they grew spectacularly.

LEFT IN THE DUST. However, the industry ignored a group of Taiwanese companies that came to be called original design manufacturers (ODM) -- electronics companies that mostly designed and manufactured low-end PCs for "no-name" PC vendors. The EMS leaders viewed the Taiwanese ODMs -- Asustek Computer, BenQ, Compal Electronics, Hon Hai Precision Industry, Quant Computer, HTC, and others -- as unskilled, low-cost players.

The EMS players couldn't imagine that the ODMs could both charge less and have the ability to design -- rather than just copy -- sophisticated computer equipment.

EMS opinions notwithstanding, the ODMs actually employed more engineers, had more patents, and invested in more R&D than all of the EMS players. In the past several years, the ODMs have eaten their precursors lunch by dominating ever-more-sophisticated segments of the industry. Far too late, Flextronics realized that design matters and bought the industry icon Frog Design.
CAPABILITIES CATCH UP. Assuming that capabilities are static and advantages are permanent adds up to a big mistake, as the Big Three auto makers and EMS leaders found out the hard way. Natural endowments of climate, location, and mineral resources may prove enduring, but company-generated capabilities remain quite fluid.

Equally, no one should assume that seemingly conflicting capabilities -- in this case low cost vs. design and innovation -- cannot coexist. Within industries and across them, certain capabilities grow ubiquitous, because they become too important to successful competition for any business to neglect to develop.

Initial quality turned into such a capability in the auto industry: You can't sell cars without JD Power & Associates certifying to prospective buyers that initial quality is reasonably high. Even Mercedes-Benz (DCX) -- hurt badly by lagging JD Power initial-quality scores -- now understands that its powerful brand name doesn't exempt it from the need to produce high and consistent initial quality.

UNIVERSAL GOAL. How can you tell whether your business will remain the only one to build a particular capability and thereby automatically have an advantage? The general rule: If the opposite of the capability in question sounds stupid, then your competitors are already, or soon will be, pursuing the same capability.

For example, the opposite of choosing to be "customer-oriented" is to elect to ignore your customers -- the latter being silly. The opposite of pursuing high-quality products or services is to pursue low quality. It, too, is daft.

For North American companies competing against Indian ones, what does this mean for design and innovation? Since lackluster design and staid conformity are fairly bad ideas, one can safely assume that attention to compelling design and potent innovation is going to be universally sought.

"QUICK AND DECISIVE LOSS." Consequently, North American companies err if they assume they'll win because their Indian competitors will pay no attention to design and innovation. If the leading Indian companies' design and innovation intentions haven't already manifested themselves, they soon will.

That means North American companies need not only commit to design and innovation
but also recognize design and innovation as one of the key fields upon which they'll fight the competition. They must put resources behind it.

Too many large North American companies have cultures that promote lackluster design and conformity. That must change -- or they're going to lose on both cost-effectiveness and innovation. It will prove a quick and decisive loss, not unlike the trouncing of the EMS providers by the Taiwanese ODMs.

In the end, design is all about refusing to accept apparent trade-offs and instead innovating around them to produce creative resolutions. If North American companies genuinely want to embrace design and innovation to ward off Indian and Chinese competitors, they had better start by rejecting the notion of an apparent trade-off between low cost on one hand and design and innovation on the other.

They need to think "and" -- not "or" -- and get to work designing.