

Decoding a Company's DNA

by Mohnish Pabrai

Published on the RealMoney section of [TheStreet.com on November 15, 2002](#)

Editor's Note: We're pleased to introduce our newest contributor, Mohnish Pabrai, who is the managing partner of Pabrai Investment Funds, an Illinois-based value-centric group of investment funds. We hope you enjoy the column; as always, let us know what you think.

The DNA structure of a business usually gets set in stone during the first 90 days of its life, and trying to reprogram this genetic code after a few years is excruciatingly difficult. The DNA structure dictates the way in which a company will respond to various business challenges over time.

From an investment perspective, a lot of useful information can be gained from decoding this genetic blueprint and understanding what transpired during the very early stage of a given business. If you're able to decode, you can extrapolate business performance far into the future.

Let's start with a study of Lucent. It used to be called Bell Labs, the research-and-development division of AT&T. Before 1984, AT&T was a regulated monopoly with a cost-plus pricing model. Regulators allowed AT&T to earn a reasonable return on invested capital. The more the capital invested, the higher the return. Thus, incentives to spend a lot of money and build a "gold-plated" network infrastructure were in place. Thus, it ended up with a telephone network with insanely high redundancy and fault tolerance. Price was never a priority.

Lucent was where this bulletproof telecom gear was designed and built. With the onset of deregulation and the spinoff of Lucent, a big change occurred. Now Lucent needed to compete. AT&T wouldn't necessarily be buying Lucent gear, but choosing the best solutions from various vendors.

You can't reprogram the bureaucratic R&D arm of a lethargic, regulated monopoly to suddenly become as nimble and competitive as Cisco or Qualcomm. It violates fundamental laws of genetics. What transpired at Lucent since its spinoff was totally predictable. Had investors studied its DNA, they wouldn't have taken the stock from \$20 to \$60 in the late '90s. More important, they wouldn't have ridden it down to \$1 today.

All Washed Up

Let's examine the changes in Procter & Gamble's DNA structure. This 175-year-old company consistently produced high-quality products and overlaid them with stellar brand-building to dominate its markets. Even as the product superiority gap inevitably shrunk, the company's branding power kept a steady revenue stream flowing, even from 56-year-old products like Tide detergent.

In contrast, Wal-Mart's DNA structure can be summarized by Sam Walton's phrase, "Stack it high 'n let it fly!" The company sells Tide more efficiently than anyone else on the planet. P&G's brand power makes folks yearn for Tide and Wal-Mart's price leadership leads them to its door.

As Wal-Mart has scaled to more than \$200 Billion in revenue, it found that it had the volume to clone Tide and sell it as a store brand. Compelled by the price difference, shoppers decided to try the store brand, and they began to abandon Tide in droves. When they encountered Wal-Mart's store brand for paper towels, dishwashing detergent, etc., they now started switching - rapidly.

What just happened to P&G is cataclysmic. Its advertising generates store traffic for Wal-Mart, but consumers end up switching to store brands, which have zero advertising budgets. It's clear who'll win this uneven battle. P&G's business model now looks a lot different, and its genetic blueprint is completely unequipped to handle the shift.

In general, as the mass-merchants scale their store brands, the consumer packaged-goods companies will have a harder time competing. There's nothing P&G can do, and unfortunately, investment returns for P&G shareholders will be very lackluster over the coming decades.

Programmed for Success

To further illustrate the predictive powers of DNA decoding, consider the situation with Oracle, Sun Micro and Microsoft. Oracle and Sun had the right idea about the big markets that open systems and relational databases would eventually represent. Both companies scaled rapidly as they took off. In parallel, Microsoft set its sights on dominating desktop operating systems and low-end relational databases like Access and SQL Server.

Over the years, with rapid advances in computing from Intel , Microsoft's Windows has evolved to be very competitive from a price/performance with Sun's servers and workstations. Sun only wins out in an increasingly small market for very high-end systems. Similarly Oracle cannot match SQL Server price/performance for all but the most demanding applications. Over time, both companies will be forced to chase smaller and smaller high-end markets as the volume driven "Wintel" combo continues to drive them out of their core markets.

Oracle and Sun are fundamentally incapable of competing with Wintel. Wintel's hyper-efficient sales model and amortization of R&D expenses over massive volumes makes it impossible to match. Oracle and Sun, with their multibillion-dollar market caps, can never compete head-to-head with Microsoft and make money – yet that's exactly what the future dictates. A negative annualized rate of return is pretty much a given.

Microsoft, on the other hand, has a very unusual genetic structure. It isn't an innovator, but a cloner – and an aggressive one at that. Windows was lifted from Apple, Word from WordPerfect, Excel from Lotus, Explorer from Netscape/Mosaic and Xbox from PlayStation.

But even as a lowly cloner, Microsoft isn't very good. It took MSN eight versions to finally become better than AOL and Microsoft Money still lags Quicken. Anytime Microsoft has tried to be innovative, it has failed. Any business that succeeds – despite poor cloning attempts and innovation failures – simply has terrific genes.

Spend some time figuring out the genetic blueprint of a given business before making an investment. If it has great genes *and* you can buy it well below intrinsic value, back up the truck. Otherwise just keep on driving.

Mohnish Pabrai is the managing partner of Pabrai Investment Funds, an Illinois-based value centric group of investment funds. At time of publication, Pabrai held no positions in any securities mentioned in this column, although holdings can change at any time. Under no circumstances does the information in this column represent a recommendation to buy or sell stocks. He appreciates your feedback at mpabrai@realmoney.com. You can access his Web site at www.pabraifunds.com.