# COMPETITIVE ADVANTAGES FOR INTERNET COMPANIES

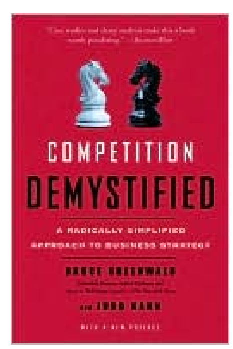
"Internet companies are the absolute best businesses in terms of quality and **competitive advantage**." [1]

So said Bill Miller, the Chief Investment Officer of Legg Mason and only investor to beat the returns of the S&P500 15 years in a row. When one of the world's smartest value investors says that internet businesses are a great place to deploy capital, we should pay attention. I thought I could learn something from Bill's insight and this note summarizes my best views on competitive advantages as they apply to internet companies.

### Should We Care or Just Play Roulette with Our Money?

The internet is a business environment with almost no barriers to entry. Everybody can create a web site, and the cost of getting started is almost negligible. A good idea is quickly identified and copied hundreds of times. How can you build competitive advantages in a business environment with almost no barriers to entry, tremendous transparency, and almost perfect competition? This question should interest anybody who stakes their time or money on internet businesses. In fact, I believe that billions of dollars were wasted during the dotcom bubble primarily because of investors' misguided belief that they were creating competitive advantages in their companies when in fact they were not. A good example is all the dotcoms that funded massive outlays for TV advertising for brand building. Capital was spent, but it did not create competitive advantages. At the same time, investors underestimated the competitive advantages of incumbent companies from which the start-ups were supposed to take business. Truly understanding competitive advantage is essential to making capital allocation decisions. So let's take a step back and begin by defining exactly what is a competitive advantage. As the internet bubble illustrated, while the basic idea of competitive advantage is widely familiar, it is too frequently misunderstood.

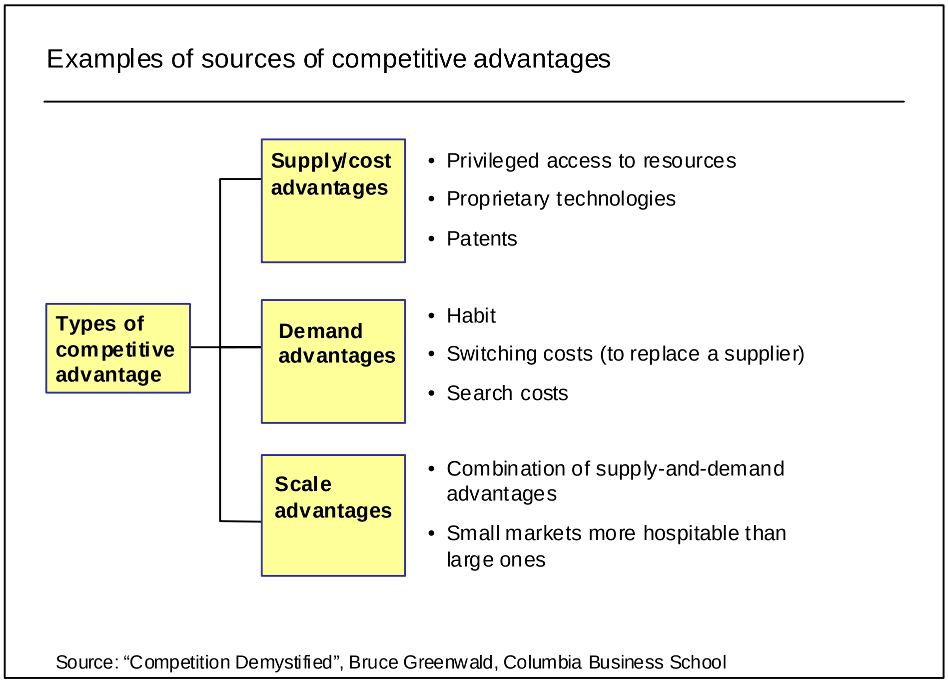
### Some Basic Thoughts on Competitive Advantage




The best work I know about competitive advantage is from Bruce Greenwald of Columbia University, and I will quote liberally from his book, Competition Demystified (Penguin Group, 2005). Professor Greenwald argues that at its essence, a competitive advantage is being able to do what rivals cannot do. Unfortunately, there are very few sources of competitive advantage that meet this test. Many of the factors people believe to be sources of competitive advantage in fact are not. For example, differentiation is not a source of competitive advantage. Differentiation may keep a product from being a generic commodity item, but it does not eliminate the intense competition and low profitability that characterize a commodity

[1] Morningstar, February 2, 2007

business.  Branding, a primary tactic for product differentiation, does not eliminate the corrosive impact of competition.  Hundreds of businesses claim their brand to be a competitive advantage, but unfortunately that is a myth.  The problem is not lack of differentiation, but the absence of barriers to entry.  Professor Greenwald argues that there are only three types of competitive advantage: customer captivity, production advantages, and economies of scale, especially on a local level (see exhibit).  Two straightforward tests (market-share stability and high return on capital) confirm their existence.




Let's go back to Bill Miller.  In the Morningstar interview, Bill does not identify which competitive advantages accrue to internet companies, but he establishes that they do exist because he can observe their impact.  In his words, "the Internet seems to obey the Power Law of Distribution: There are millions of Web sites, but only a small handful that have millions of customers.  There is an enormous difference between barriers to entry and barriers to success on the Internet. Anyone can start a business, but gaining the number of customers needed to be successful is a great challenge. Plus, Internet businesses that do beat the odds tend to be easily scalable with very high returns on incremental investment - there is a great deal of potential operating leverage".

An even cursory look at the structure of the internet industry makes clear that the Power Law of Distribution exists.  In fact, internet businesses that achieve "barriers to success" meet the two tests that indicate the presence of strong competitive advantages: stable market share and high returns on capital.  Google, Amazon, and Blue Nile have all achieved success, are maintaining if not gaining market share, and generate high returns on capital.  Clearly, in the absence of competitive advantages, given the unfettered competitive intensity on the web, none of these businesses would maintain or gain market share while generating high returns on capital.  They have clearly created competitive advantages, but which ones, and how?

**Network Effects and Competitive Advantages**

To me, the presence of the Power Law suggests strongly the existence of network effects. I am an investor, not a scholar, so this is an opinion and not a conclusion based on rigorous research. An interesting implication of the prevalence of network effects on the internet is that, because networks amplify whatever effect they are propagating, these advantages are stronger and more sustainable for internet businesses than physical ones. This may explain, at least partially, Bill Miller's provocative statement that "Internet companies are the absolute best businesses" (e.g., better than non-internet businesses).

Based on my experience, the main source of competitive advantages for internet businesses reside in three primary factors, each of which reinforces the other:

1. **Increasing return dynamics**. Brian Arthur at the Santa Fe Institute has written extensively about increasing returns, the tendency for that which is ahead to get further ahead, and for that which loses advantage to lose further advantage. These dynamics occur largely because of positive feedback mechanisms that exist in knowledge-based industries, and did not exist in traditional processing industries. Increasing returns occur in conditions of market instability, multiple potential outcomes, unpredictability, the ability to create lock-in, the possible predominance of an inferior product, and fat profits for the winner. Brian Arthur argues that it is adaptation to market dynamics that drives increasing-returns businesses, not optimization, and that success in knowledge-based industries demands active management of increasing returns. Entering a market first with a fine product can yield advantage, but is insufficient as a strategy[2].

2. **Social influences/preferential attachments.** The success of a product or experience (i.e., a web site) cannot be explained by measures of intrinsic quality or "appeal" but by the effects that consumers have on one another's decision. Social influences are particularly relevant for internet businesses because on the web, consumers can exchange their views most easily, and information about products or services can propagate more rapidly and broadly. Not much is known about the quantitative impact of such social influences, but I believe they matter. Duncan Watts, a social scientist, has done some pioneering work[3] which seems to confirm the importance of effects that consumers have on one another's decisions. He identifies preferential attachment as the trend that people preferentially consider what they think other people like. This finding highlights the importance of social networks, which expose ordinary individuals to one another's decision about what they watch, listen to, and buy. Another research finding is that the success of a particular entertainment product cannot be explained by any measure of intrinsic quality or "appeal" – the fit between the product's attributes and consumers' preferences – but by complex networks of social influences. This means that it is virtually impossible to predict the success

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[2] *Increasing Returns and the New World of Business*, Brian Arthur, Harvard Business Review July 1996.

[3] *Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market*, Duncan Watts, Professor of Sociology, Columbia University, Science Magazine Volume 311, February 2006

of an information experience based on its intrinsic characteristics, and that successful experiences cannot be reverse-engineered. This may be another factor in explaining the "winner take all" dynamics we observe on the internet.

3. **Customer captivity**. This is one of the types of competitive advantage described by Bruce Greenwald and, in his view, the most enduring. In its simplest form, customer captivity gives a business access to customers that competitors cannot match. Customer captivity is grounded in one of three factors: forming habits, increasing switching costs, and making the search for alternatives more complicated and difficult. The consumer process of learning to use a given web site represents an investment in consumer time and attention that creates a switching cost, particularly if the consumer makes the effort to provide information (e.g., having your email address on AOL). Once invested in a given, satisfying experience, consumers will come back and create habits which are hard to break. This factor highlights the critical importance of user interface design, and the need for continuous improvements on that design. On the web, the best experience anywhere becomes the base experience everywhere.

**Implications for Investing in Internet Companies**

Significant wealth has been created, and will continue to be created, by investing in internet companies when it is understood how these companies build real competitive advantages, and harness network effects to establish and protect their businesses. But the factors discussed above, which seem to determine success, do not accrue to all internet businesses equally. Therefore, it is crucial before investing in internet companies to establish criteria for identifying businesses that are more likely to benefit from these network effects, social influences, and customer captivity (all else being equal of course). For example, it could be argued that businesses more likely to succeed are those for which user-communities can influence the purchasing process, or those that focus on information-intensive transactions, or categories where pricing is not the primary purchasing driver.

Another implication of the existence of network effects may be to invest in young internet companies that have achieved "barriers to success" in their relevant market because the increasing returns dynamics at work in the industry strongly favor them to retain their market leadership.

As an investor, it is easy to get caught up in the novelty of a new technology or the traffic growth figures of a new web site, but buyer beware, neither may represent a competitive advantage. Since most investments do not return their cost of capital, you better know what you are looking for before signing that check.

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September 2008

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