

## ROI Valuation



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### The Invisible Advantage

**Measuring and managing your company's intangible assets can lead to a clearer view of corporate value.**

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How much of your company's value is based on items that don't appear on your balance sheet? Don't know? Chances are, the financial market does. Intangibles are a company's people, ideas, know-how, relationships, systems, and work processes--in short, the facets of business that most companies overlook and take for granted. Typically, intangibles don't get measured, managed, or disclosed. But intangibles matter a lot. Both Wall Street analysts and sophisticated investors use them to gauge corporate strengths and prospects.

In fact, our research shows that fully 35% of portfolio managers' decisions about where to allocate investment dollars are based on intangibles--items usually omitted from the balance sheet. We also have found that half of a company's value is similarly based on intangibles. Simply stated, intangibles are a source of invisible advantage.

Paying attention to intangibles is a relatively new phenomenon. Prior to the 1990s, professional investors and analysts rarely looked beyond a company's debt-to-equity ratio, market share, size, or other easy-to-measure indicators of financial strength. But in the last decade, a small group of academics recognized the growing importance of intangible assets to our economy. They concluded that financial statements alone were insufficient guides to a company's future. Their work prompted financial professionals to ask whether they really had all the information they needed.

Over the past five years, the Cap Gemini Ernst & Young Center for Business Innovation has researched the invisible advantage of intangibles. In CBI's first study, published in 1997, we surveyed the significance of--and the weight given to--intangibles by both sell-side and buy-side analysts. Our next research project, published last year, examined the role of intangibles in the success of initial public offerings (IPOs). That was followed by our Decisions That Matter survey, also published in 2001, which identified the critical nonfinancial drivers of long-term economic value from the perspective of senior managers. Our most recent study, the Value Creation Index (2001), used publicly available data about Fortune 500 companies to determine which intangibles did the most to drive their value and which companies did the best job of managing those intangible assets.

Based on our research, we now believe that IT executives are the people best positioned to uncover the intangible value drivers hidden within their companies. They're also the executives best qualified to design systems that tie intangibles to broader management systems linked to compensation, corporate governance, and strategy.

IT executives have two crucial roles to play in the corporate leveraging of intangibles. Since the effective implementation of IT is essential to a company's continued growth and profitability, capturing the productivity enhancements generated by IT falls to those executives. So first, IT executives must not only evaluate, purchase, and install IT systems, they must create the invisible advantages of IT differentiation and innovation. These include alignment with corporate-strategy execution; successful organizational/workplace design; communication with the rest of the company to recognize the opportunities of such enhancements; adaptability for future growth and market changes; and, of course, leadership.

The second role for IT executives involves identifying, measuring, and reporting on intangibles. These actions rely on gathering, storing, and making available essential data. IT executives find themselves at the nexus of corporate efforts to design systems to accomplish those goals. They also have to design, test, and manage the systems that tie data-storage and-retrieval efforts to the relevant corporate information management and reporting systems.

## Intangibles count

When we began to study the growing importance of intangibles, our first questions were whether analysts and investors were actually scrutinizing these nonfinancial measures and how much weight they were giving those measures in determining share prices and company valuations.

Most analysts in our survey relied heavily on a broad range of 12 intangible factors when making investment decisions. These factors included a company's ability to retain customers, its skill in marketing, and its policies for compensation incentives (for the list, see sidebar, "[Measures That Matter](#)"). The big surprise: The more that analysts took these factors into account, the more accurate their earnings predictions were.

Next, we considered whether intangibles could affect financial outcomes, such as share prices and market caps. To find the answer, we asked buy-side investors--people who manage portfolios for mutual funds, pensions, and other large financial institutions--if they used intangible factors to help pick investments. Roughly seven of 10 said they did, and that nonfinancial data drove at least 30% of their investment decisions. When we looked more closely--analyzing what these investment pros did, as opposed to what they said they did--our findings were more startling. On average, 35% of the investors' allocation decisions are driven by a consideration of nonfinancial data or information about intangibles.

Which intangibles mattered most? Though responses varied, information about strategy execution, management credibility, and innovation tended to be far more important than measures of customer complaints, employee-training programs, or environmental and social policies. But the fact remains: Roughly a third of investors' buying and selling decisions depend at least in part on nonfinancial information.

Another area in which intangibles count is in the analysis of IPOs. You might think most IPOs do well, given the excitement they generate on Wall Street and their importance in the economy--the dot-com bubble notwithstanding. But in fact, IPOs typically do poorly. Companies going public for the first time tend to underperform the market, both in operating returns and share-price returns, for their first three years.

We researched the role of intangibles in the outcome of IPOs. This research, conducted in partnership with other colleagues at Cap Gemini Ernst & Young and academics from Harvard Business School and INSEAD, the international business school, surveyed the 15-year span from 1986 to 2001. We divided the IPOs into three periods, corresponding roughly to the early PC and software era (1986-1990), the biotech and pharmaceuticals era (1990-1995), and the dot-com/Internet era (1995 to 2001).

We took a somewhat unusual approach, and started by defining success purely in terms of share price and market-cap growth. But we also asked executives who had been through an IPO during these eras to judge the success of their IPO and to name the factors they thought contributed to that result. We then compared those responses to their companies' share-price and market-cap data. Our study drew on more than 3,800 companies, representing virtually every U.S. public offering between 1986 and 2000. We received detailed questionnaires from senior executives at more than 480 of these companies, for a response rate of 13%--above the norm for survey research.

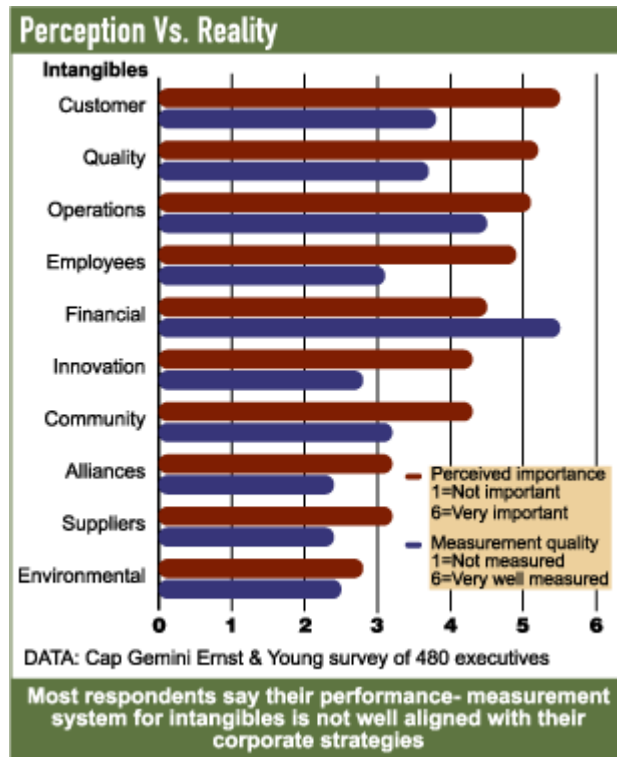
Among our findings:

- As a rule, IPOs perform relatively poorly.
- Intangibles are significant differentiators between IPOs that create value and those that don't.
- Intangibles are even more important than traditional financial measures in determining an IPO's success or failure.
- The popular perception that successful IPOs are based on technology is largely a myth. Instead, the factors that distinguish successful IPOs have more to do with intangibles such as management experience, adaptability, alliances, leadership, and strategy. That's not to say that the company's technology is unimportant, but just having a cool technology won't sustain a new public company.
- Had proper attention been paid to these intangibles, investors might not have lost so much money, employees might not have lost their jobs, and more of these companies might have survived.

In fact, intangibles--or, more accurately, a lack of attention to them--played a role in both the dot-com bubble and the Nasdaq collapse. Many of the intangibles cited as important to IPO success declined dramatically from 1986 to 2000. In effect, the dot-coms were inherently weaker in intangibles than many of their predecessors. It's no exaggeration to say that, based on these criteria, they were virtually destined to fail.

Of course, the information was available before the dot-com bust. IPOs were known to be risky; the quality of the companies being taken public was deteriorating. The results, for which the global economy was still paying in autumn 2001, support the dark side of intangibles in this allegedly rational modern age: Belief systems trump information systems.

The notion that intangibles matter may elicit a good deal of skepticism. Most companies don't easily embark on a new management approach--let alone one that's unproven. So-called hard-nosed businesspeople manage financial results, period. Suggesting they instead start paying attention to "soft" measures, such as employee satisfaction or a company's adaptability, may be a difficult argument to win. Yet it would be a mistake to overlook their importance.



### Information gap

In another research project, we aimed to identify the critical nonfinancial drivers of long-term economic value from the perspective of senior managers. We also wanted to assess the performance consequences of gaps between value drivers and the use of measures for internal decision-making and external reporting. In other words--and here's the rub for IT executives--were executives in different industries getting good information about the factors they identified as important or was there a gap? And, was the gap reflected in a company's financial performance?

We started the research in 1998 with technical assistance from professors at the University of Pennsylvania's Wharton School. We asked businesspeople to identify the factors that help them to create value. We then asked what sorts of information they used to measure and understand those value drivers--and whether they were satisfied with the information's quality.

The results surprised us. More than 80% of respondents said they get very poor information about the value drivers judged to be most important to them as managers.

A few months later, we polled CEO attendees at an executive conference--the very people who create the systems of information and measurement in their companies. Surprise, again. More than 70% of this audience told us they weren't giving or getting the kind of information that they and their employees needed to manage their companies effectively.

These responses suggest that many managers suffer from a sizable information gap. To determine just how big that gap is, we launched another study to identify the critical, nonfinancial drivers of long-term economic value from the perspective of senior managers. We also wanted to assess the performance consequences of any gaps between these value drivers and the use of measures for internal decision-making and external reporting.

Our findings were clear. A majority of executives in every industry studied believed there were disconnects between the drivers they felt were critical to the company's success and what was actually being measured and reported. What's more, smaller gaps went hand-in-hand with better financial performance as measured by return on assets, five-year net-income growth, and higher stock returns (in both one-and three-year increments). It's difficult to get much more hard-nosed than that.

We next set out to create an index that could assess the performance of a company across a wide variety of intangibles. We wanted to know if a company's "score" on this index--its intangibles-management grade, so to speak--has a direct, measurable effect on its market valuation.

For the Value Creation Index, we selected nine critical nonfinancial drivers from the list of 12 created in our previous research. Originally, we focused on S&P 500 manufacturing companies with a market cap of at least \$100 million. Later, we added individual industries, such as financial services and telecommunications.

Through rigorous quantitative analysis, we confirmed that the multiple indicators used to measure each driver were statistically related and, in fact, captured the same underlying value-driver category. We also weighted the drivers into an overall score, which we called a Value Creation Index. These scores were essentially a measure of companies' performance on these intangible dimensions.

The VCI demonstrated that at least half of a traditional company's value is based on these nine intangible drivers. What's more, for both durable and nondurable manufacturers, the VCI score was highly correlated (0.70) with market value. In fact, a company's VCI score correlated as strongly with its market value as did its financial performance.

Also, improvement in key intangible drivers translated strongly into increased market value. That is, relatively small changes in the VCI can produce significant changes in market value. For example, a 10% change in VCI score--either up or down--is associated with a 5% change in market value, correspondingly up or down, after controlling for financial variables. In our study of manufacturers, this hypothetical 10% rise in VCI and resultant 5% jump in market value corresponded to a \$3.9 billion boost in market value in the durable-goods sector and a \$2.2 billion increase for the nondurable-goods sector.

### A five-step plan

Intangibles can be measured by determining proxies to represent them. In every case, multiple measures should be used to maximize validity and reliability. For example, when we originally wanted to approximate the intangible "Innovation" for companies in various industries, we set out to find the best series of indicators to estimate just how innovative a particular company was at a given point in time. We came up with four main measures: number of patents held, research-and-development expenditures, a major publication's Innovation score, and a published patent-importance rating by company.

We think most businesses need a companywide commitment to managing intangibles. Such a program would identify, assess, and study ways to improve intangibles. Our research has identified five broad steps that every company should take:

- **Determine your industry's three or four most important intangibles.** To create this list, ask your leadership team to rank the intangibles they believe are most important for the business as a whole. Key questions: What are our business' real drivers of value? If we could gain a competitive advantage by improving our performance in just two or three key areas, what would they be?
- **Select metrics for your key intangibles.** First ask what your company already measures. Someone in the company is often already gathering valuable information that normally gets filed away, but can be used. Gather that data--and if there's additional information you need, figure out how to get it. Some intangibles, such as intellectual capital, lend themselves to relatively easy measurement. You can measure things like the number of patents the company holds or the size of its R&D budget. Others present more of a challenge. The answers to the tough questions often involve judgment, but don't let that stop you. Where appropriate, poll your customers, employees, investors, suppliers, and other stakeholders.
- **Create a baseline and benchmark it against your competition.** Ultimately, you want a "movie" of your management of intangibles. That is, you want to see whether they're improving based on the metrics you establish, and if they are, how. But first, take a snapshot of where you stand today, and then assess your standing relative to competitors. After all, the purpose of managing intangibles isn't simply to get better scores; it's to outflank your competitors. So determine where your competitors' strengths and weaknesses lie, and gauge them against your own.
- **Launch initiatives to improve performance on key intangibles.** Although few companies do this, intangibles can be managed and measured. Assessing intangibles helps you determine where to invest time and resources. Undertaking initiatives to improve performance helps you build value.
- **Communicate what you're doing.** A watchword for any company that wants to manage its intangibles effectively is open systems. Share insights with customers, employees, industry groups, investors, suppliers, and Wall Street analysts. Share your metrics and your targets; let others know what you expect to achieve and why it's important. You'll gain credibility and be rewarded by the market.

The implication is clear: If you apply these techniques to your own business, you can seize the power that has gravitated to investment professionals and reinstall it where it belongs--within your company. 💡

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