

Measuring Profitable Growth and Innovation

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Research Note

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Does effective innovation drive profitable growth? The link is hard to prove, but the evidence is mounting. Let's define innovation as the implementation of new ideas in an attempt to create value. Innovation can be narrowly focused – for example, on the creation of appealing new products or services – or it can tackle the big picture, as in the crafting of effective new business models.

Over the past decade, research in different industries has shown that effective innovation – at least to the extent it can be measured – is correlated with better total returns to shareholders and thus to high performance; similarly,

Accenture's research into the components of high-performance business confirms that innovation is critical to an organization's ability to continually renew itself. Consider the following:

- Spending on research and development, which is not the same as innovation, but is measurable, returns 25 percent to 30 percent.¹
- Companies that own widely cited patents and that are quick to commercialize those patents outperform stock market averages by 1000 percent over 10 years.² In seven industries that generate large numbers of patents, a patent cited 14 times by other patents is worth 100 times more, on average, than a patent cited only 8 times.³

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- Each new product introduction announced in the *Wall Street Journal* between 1975 and 1984 resulted in an average return to shareholders of \$115.7 million beyond the industry norm (in 2004 dollars).⁴

Executives find these tidbits of research provocative, but not terribly useful. To see whether their own innovations are translating into corporate success, executives need measures they can trust and track.

The 3M measure

To address this issue, some have adopted the measure that 3M famously uses: the proportion of sales resulting from products introduced in the past three years. This measure is a step in the right direction, but has some flaws. First, it measures sales, but not profits or the investment required to create the products. If the target is profitable growth, the scorecard must include both returns and invested capital. Second, this measure looks only backward, capturing the impact of past innovations; it doesn't address current investments and whether or not they will pay off in the future. Third, it's somewhat self-centered. To determine whether the organization actually created value, we should ask whether the results put the company ahead or

merely kept it on par with others in its industry. Finally, the measure assumes that all of the organization's value-creating initiatives will somehow be reflected in product sales. This might be true for innovations in brand, distribution channels and pricing, but would not necessarily hold for innovations in financial structure, business model, or even services.

Alternative measures

These drawbacks don't make the 3M measure bad — just incomplete. My study of innovation in 46 organizations revealed a wide variety of other measures that organizations are using to fill in the gaps (see Exhibit 1). They included both process measures to track ideas,

About the Research

During 2005, I conducted interviews with 56 senior executives at 46 organizations. Of the organizations, 26 percent were in the electronics and high-technology industry, 22 percent were in consumer products, 15 percent were in financial and professional services, 15 percent were in the public sector, 11 percent were in energy and resources and 11 percent were in pharmaceuticals and medical devices. Interviewees' roles ranged from senior leadership, (CEOs, chief technology officers, chief strategy officers, chief marketing officers and chief innovation officers) to vice presidents and directors of new product development, information technology, field strategy and business development. I also administered

a short questionnaire to the private-sector respondents to determine their innovativeness compared with others in their industry. Of the 32 interviewees who received a survey, 81 percent responded.

To supplement the interview data, I compiled and analyzed public financial performance data for the 21 publicly traded organizations in the participant pool as well as selected organizations that did not participate in the research.

Exhibit 1. Innovation measures

	Measures profitability and investment	Is forward looking	Measures relative to peers	Encompasses all types of innovation
Process measures				
IT business value index (measures the forecast business impact of an IT investment)	Yes	Yes	No	No
Idea inventory (measures whether ideas are developed and whether they are adopted)	No	Yes	No	Yes
Employee engagement (measures employee energy and commitment)	No	Yes	No	Yes
Resource allocation across risk categories	No	Yes	No	Yes
Share of widely cited patents	No	Yes	Yes	No
Patent awards	No	Yes	No	No
Milestone hit rate	No	Yes	No	No
Speed to market	No	Yes	No	No
Opinion leader sponsorship	No	Yes	No	No
Benchmark productivity	No	No	Yes	No
Track record of individual innovations (sales and profits from products launched)	Yes	No	No	No
Growth measures				
Customer uptake modeling (forecast of customers' acceptance of products)	No	Yes	No	No
Share of wallet (the company's share of the customer base's spending)	No	No	Yes	No
Share of bill of material (a B2B supplier's share of the components in its customer's product)	No	No	Yes	No
Win-loss analysis (share of sales compared with competitors)	No	No	Yes	No
Growth in revenue	No	No	No	Yes
Deals done (number of sales that were closed)	No	No	No	No

Exhibit 1. Innovation measures (continued)

	Measures profitability and investment	Is forward looking	Measures relative to peers	Encompasses all types of innovation
Profit-focused measures				
Growth in per-customer profits	█	█	█	█
Growth in enterprise profits	█	█	█	█
Innovation of inventory impacts (record of value created by innovation)	█	█	█	█
Social value created (favorable societal outcomes resulting from the organization's work)	█	█	█	█
Margin premium (ability to increase revenue at increasing margin percentages)	█	█	█	█

initiatives, people and pace – and outcome measures to capture the impact of innovation.

One of the organizations I examined bets almost exclusively on innovation champions – individuals with a track record of successful product innovations. To place its bets, this organization relies on a retrospective evaluation of sales and profits, relative to competitors' products in the same category. However, it fails to take into account all the capital and expense associated with initiatives that did not pan out. Further, its concept of innovation is limited to product innovation.

Another organization knows that it wins business when it is first to market with new services – but only if those services are ones the customers want. Services that miss the mark, or worse,

anger customers, are not profitable. This company focuses on total profit because it captures both of these effects. It also separately measures whether its services were first to market and the customer uptake and complaint rate associated with them. And it keeps track of how its customer churn rate compares with that of its competitors. These indicators provide a good, peer-relative look in the rearview mirror, but little forward insight.

Indeed, it turns out that none of the additional measures these 46 companies use fills in all the gaps in 3M's popular outcome metric. Process measures, which tend to be more forward looking than outcome measures, are much less capable of providing powerful comparisons with industry peers. Profit-focused measures such as margin premium and financial track record can be used for benchmarking, but like outcome measures they are backward looking. Further, they tell executives

little about the extent to which innovation contributed to the results or where to focus efforts for improvement.

A new measurement starting point

When faced with incomplete measures, executives generally just add more. While tracking a large number of incomplete measures may make for a broader perspective, it does not necessarily improve insight into how to make innovation pay off.

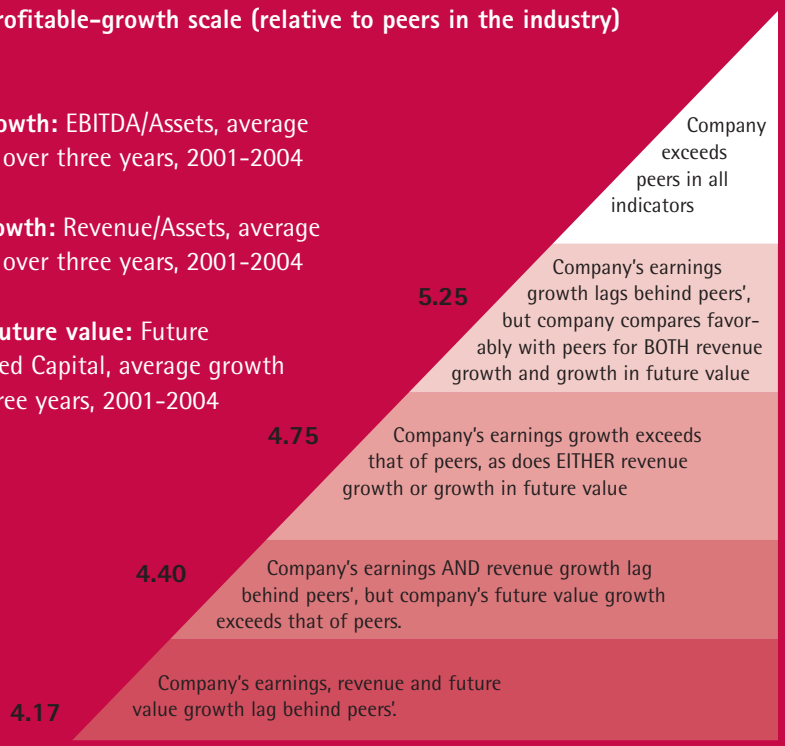
Accenture has developed a broad, enterprise-level results measure that serves this purpose. (See "About the Research.") It can be applied within or across industries; it rates a company relative to its peers; it looks both backward and forward; and it focuses on profitable growth as the summary outcome of all types of innovation. I call it the profitable-growth scale.

Exhibit 2. Profitable-growth scale (relative to peers in the industry)

Earnings growth: EBITDA/Assets, average growth rate over three years, 2001-2004

Revenue growth: Revenue/Assets, average growth rate over three years, 2001-2004

Growth in future value: Future Value/Invested Capital, average growth rate over three years, 2001-2004



Examples

Marriott, Nike, 3M

Intel, Royal Bank of Canada, UPS

BP, Constellation, Herman Miller, Marks & Spencer, Tesco, Texas Instruments, Wachovia

Bank of Montreal, BOC, Hyperion, Millennium Pharmaceuticals,

Biogen, Cognos, Microsoft, Nortel

Average self-reported innovation capability, on a scale of 1 to 7, by the public companies in each category that also participated in the research. These results are from a total of 15 companies.

The profitable-growth scale ranks companies based on three publicly available indicators: growth in earnings, growth in revenue and growth in future value. Earnings growth and revenue growth are retrospective. Future value is the portion of total shareholder return in a given period that is not accounted for by current operating results.⁵ It represents the market's expectation that a company's performance will improve in the future. All three indicators are divided by invested capital to normalize for company size and capture the capital required to produce profitable growth.

On each of the three indicators, a company's results are compared with the average for its industry, revealing the company's position relative to its peers in terms of profitable growth (see Exhibit 2).

To relate the profitable-growth scale to innovation, I asked senior executives in the organizations I studied to assess their company's innovativeness relative to others in their industry. Their average self-reported innovativeness correlates directly to the profitable-growth scale.

What do we make of this?

Before we analyze the findings, a few caveats. All external measures, including these, make implicit assumptions. They treat industries as homogeneous,

investors as prescient and the quality of publicly reported results as identical. Most analysts would want a larger survey sample, and some might ask for the measures to be constructed over a longer time frame. There are always questions about whether peer companies are truly comparable. Future phases of the research will have to address those concerns.

Nonetheless, these findings are provocative. Take the case of UPS. Although most observers grant that it is a solid performer, few praise it as a standout innovator. The profitable-growth scale, however, takes into

account the company's service innovation, which other metrics ignore, and UPS comes out at the second-highest level of profitable growth.

The companies at the upper end of the scale do not boast the highest earnings growth rates; if we arrayed them by peer-relative earnings growth, they would fall in the middle of the scale. It's clear that these organizations have found a way to strike an effective balance between current earnings growth and investment in future opportunities.

The other end of the scale holds some additional surprises. In absolute terms, Microsoft's growth in earnings and revenue has been substantial over the past few years. However, when we also take into account the company's investment to create this growth and the performance other software companies have turned in, the results no longer look so positive. Because investors also have a relatively dim view of Microsoft's future, it falls to the lowest ranking on our scale. This is not to say that Microsoft no longer innovates, but it does suggest that Microsoft's ability to turn its new ideas into revenue and profits is flagging relative to its peers.

Implications for management

Frankly, companies are not interested in innovation for its own sake. What they want is profitable growth—an effective balance between a commitment to existing customers and businesses and an appropriate investment in renewal. The profitable-growth scale helps managers strike that balance. It's simple to understand, looks both backward and forward and compares a company to its peers. It begins with placing one's organization on the profitable-growth scale (see Exhibit 3). The results, which may surprise senior leaders, will highlight the aspects of growth that need particular attention. From there, organizations must find out which of their practices contribute to effective innovation and which practices may need changing. Companies that tease out the distinctive organizational practices that actually lead to superb results can develop mid-course performance indicators for innovative initiatives. In all likelihood, these will not look anything like "best practice" guidelines we have today.

As the vice president for innovation in one large private company remarked, "We are quite remarkable in a crisis. All sorts of barriers fall away. But that's not good enough. We want to be proactively innovative. With good measures, we believe we can create visibility and urgency around innovation that will give our company a much brighter future."

Exhibit 3. How does your company stack up?

You can place your company on the profitable-growth scale by following the five steps below.

1. Identify peer companies. I recommend the Global Industry Classification Standard groupings provided by Standard & Poor's and MSCI.

2. Collect financial data for the companies of interest. Use EBITDA (earnings before interest, taxes, depreciation and amortization) to represent earnings. Divide both revenue and EBITDA by average assets to normalize

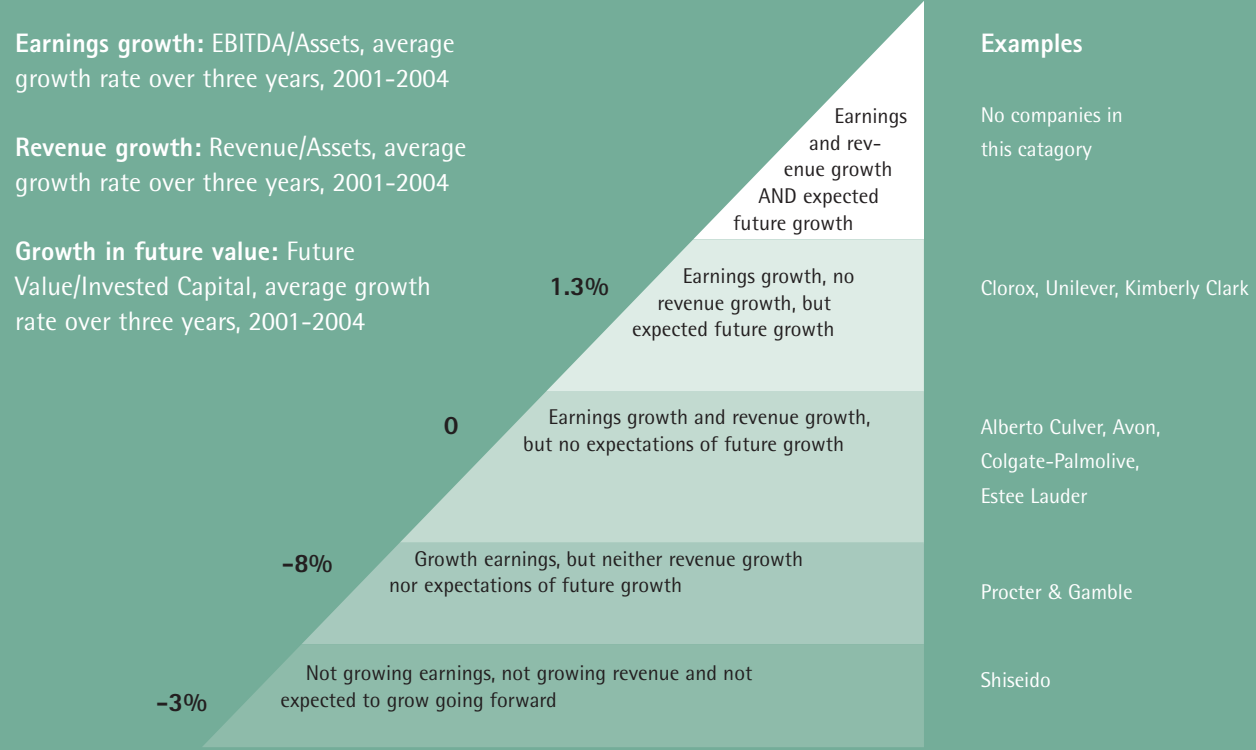
for company size. To compute future value and invested capital, I recommend Accenture's patented SVA pro tool. Those calculations are explained in the Accenture research note *New Concepts in Value-Based Management: TRS Mapping and Total Economic Profit*, by John Ballow, Brian McCarthy and Michael J. Molnar (May 2004).

3. Compute average growth rates. For each company of interest, compute three-year growth rates in each of the three metrics.

4. Compare the company to industry averages. Subtract the industry average for each of the metrics from company performance. This rates the company's performance relative to its peers.

5. Place the company and key peers on the profitable-growth scale. Assign the company and its peers to the profitable-growth scale's categories. The schematic below shows companies in the household and personal-care products industries arrayed in this manner.

Profitable-growth scale for household and personal-care products (industry-related)



Average spending on R&D as % of sales: Average growth rate over three years, 2001-2004.

About the Author

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Notes

- 1 Baruch Lev, "Sharpening the Intangibles Edge," *Harvard Business Review*, June 2004.
- 2 Tony Breitzman, "Measuring Companies' IP Efficiency," *CHI's Research*, November 2001.
- 3 Dietmar Harhoff, Francis Narin, F. M. Scherer and Katrin Vopel, "Citation Frequency and the Value of Patented Inventions," *Review of Economics and Statistics*, 81 (August 1999) 511-515.
- 4 Paul K. Chaney, Timothy M. Devinney and Russell S. Winer, "The Impact of New Product Introductions on the Market Value of Firms," *Journal of Business*, October 1991.
- 5 See John J. Ballow, Brian McCarthy and Michael J. Molnar, *New Concepts in Value-Based Management: TRS Mapping and Total Economic Profit*, Accenture Institute for High Performance Business, May 2004.

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