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Spotlight

ARTWORK Monika Grzymała, *Deux Angles/Two Corners*, 2013, ephemeral 3-D tape drawing with black masking tape

Corporate Venturing

More and more smart companies are going VC to find their next breakthroughs. by Josh Lerner



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WHEN THE GENOMICS revolution was transforming the pharmaceutical industry, Eli Lilly realized that its survival might hinge on its ability to catch up with this disruption. So in 2001 the company launched a corporate venture-capital fund in order to engage with cutting-edge biotech firms when they were just start-ups. By 2013, Lilly Ventures had been involved in more than 30 such collaborations, many of which gave its parent company valuable insights into the science of developing drugs by analyzing biological data.

A corporate VC fund like Lilly Ventures can move faster, more flexibly, and more cheaply than traditional R&D to help a firm respond to changes in technologies and business models. In some cases, such a fund can even help stimulate demand for a company's own products. At the same time, of course, its investments may earn attractive returns—an added benefit for a tool that helps capture ideas that may ultimately shape an organization's destiny.

For decades, large companies have been wary of corporate venturing. Some have seen their venture initiatives fail outright, and many more have given up too quickly: The median life span of corporate venturing programs has traditionally hovered around one year. Even firms with successful funds have sometimes struggled to make use of the knowledge gained from start-up investments. To be sure, running successful corporate VC programs isn't easy: Companies' processes and rules can make them

slow-footed and unfocused. But as disappointment with R&D results grows, there are indications that corporate venturing may be gaining ground—and respect.

Companies hoping to acquire knowledge and agility from corporate venturing can benefit from following six steps, including aligning goals, providing the right incentives, and creating systems to transfer knowledge. I'll go through these steps one by one, showing how firms can establish venture funds that are as savvy and nimble as the best private VCs. But first, let's consider the potential benefits of corporate venturing.

The Case for Venturing

In the past, corporate interest in creating venture funds tended to wax and wane in sync with the general VC climate. Waves of corporate venture activity—in the late 1960s, the mid-1980s, and the late 1990s—corresponded with booms in VC investments and venture-backed IPOs. But now we're seeing a corporate-venturing surge even during lackluster days for traditional venture capital.

In the first half of 2011, when independent funds were struggling to raise capital in the wake of the global financial crisis, more than 11% of the VC dollars invested came from corporate venture funds, a level not seen since the dot-com bubble. This new activity may indicate that as research functions face severe pressure to rein in costs and produce results, companies are looking for alternative means to learn and innovate. Companies as diverse as Google, BMW, and General Mills are complementing traditional R&D by joining with other investors to put money into promising start-ups. The logic is indeed compelling.

A faster response. By providing both an inside look at new technological fields and a path to possible ownership or use of new ideas, corporate venturing can allow a firm to respond quickly to market transformations. Lilly Ventures was just one of several corporate venture initiatives in the 1990s and 2000s that helped pharmaceutical companies catch up with the rapid advances in bioscience that were threatening to render their chemistry-based expertise irrelevant. In a study of 71 venture initiatives by biopharmaceutical firms from 1985 to 2005, Hyun-sung Daniel Kang and Vikram K. Nanda of Georgia Tech found that companies that made financially successful investments also experienced greater success in drug development.

START-UPS BACKED BY CORPORATIONS EXCEL

Start-ups that went public after being funded by at least one corporate venture-capital investor outperformed those funded exclusively by independent VCs. These figures, drawn from 1980–2004 data, are averages for the three years following the IPO.

	START-UPS BACKED BY INDEPENDENT VC FIRMS	START-UPS BACKED BY CORPORATE VC FIRMS
RISK-ADJUSTED MONTHLY EXCESS-OF- MARKET RETURN	0.58%	1.71%
AVERAGE ANNUAL REVENUE GROWTH	162.8%	189.9%
INCREASE IN RETURN ON ASSETS	5.6%	17.3%

SOURCE THOMAS J. CHEMMANUR AND ELENA LOUTSKINA, 2008

Idea in Brief

THE PROBLEM

With corporate R&D units under pressure to focus on a narrow range of projects, companies often lack a good way to sniff out competitive threats beyond their main areas of expertise.

THE ARGUMENT

A corporate venture-capital fund for investing in outside start-ups can help a company see, understand, and respond rapidly to changes in the business landscape. But the parent company's processes tend to bog down these funds.

THE LESSONS

Companies can avoid that problem by limiting venture funds' goals, providing competitive compensation, and establishing systems for knowledge transfer. Well-run venture funds can be as savvy and nimble as the best private VCs.

It's likely that developing capabilities such as this on their own would have taken Lilly and other pharma companies far longer and been far more expensive. Given the time and resources needed to update research facilities and recruit scientists with the right expertise, the growth of knowledge in internal laboratories can be painfully slow.

A better view of threats. A venture fund can serve as an intelligence-gathering initiative, helping a company protect itself from emerging competitive threats. During the 1980s, for example, when integrated-circuit makers were searching for alternatives to silicon (the basis of the dominant chip technology), the silicon-chip specialist Analog Devices created a venture program to invest in competing technologies. Its goal was to gather strategic information at relatively low cost.

Analog's portfolio didn't do very well. Just one of its 13 companies went public, and only after so many financing rounds that Analog's stake was heavily diluted. But the reason for the lackluster performance was significant: Making chips out of anything other than silicon turned out to be stubbornly difficult and expensive. Once this reality hit the markets, makers of silicon chips saw their valuations spike; Analog's increased sevenfold from 1979 to 1985. But the corporate venturing program had provided insurance: If the alternatives had been viable, Analog would have been covered.

Traditional R&D doesn't do a good job of sniffing out competitive threats. More and more, corporate R&D units tend to focus on a narrow range of projects, thus potentially neglecting disruptive advances that occur outside the company. Plenty of executives in companies with robust R&D functions lie awake wondering whether their firms are about to be blindsided by technologies they've never heard of.

Easier disengagement. Another benefit of venturing, one that's closely related to accelerating the

company's response to change and threats, is that it gives executives a faster way to disengage from investments that seem to be going nowhere. As is well-known, many companies find it difficult to abandon the not-quite-good-enough innovations that sometimes come out of internal labs. These projects can linger in product development for years, resisting termination (despite much talk about R&D portfolio management). Nokia's insistence on developing its phones using the Symbian operating system, even as its competitive position went into free fall, is a classic illustration.

The arm's-length relationship between companies and their venture funds offers advantages in this regard: The best funds tend to be quicker on the trigger than their corporate parents. Even if a corporation is unwilling to terminate an unpromising initiative, the presence of co-investors may force the decision.

A bigger bang. By combining its own capital with that of other VCs, a corporate venture can magnify the impact of its investments. This is particularly beneficial when technological uncertainty is high.

A dramatic example is the iFund, supported by Apple and launched in 2008 by the venerable VC firm Kleiner Perkins Caufield & Byers on the day when outside developers were first allowed to begin working on apps for the iPhone. The \$100 million fund—which subsequently doubled in size—invested in companies developing games and tools. In this way, Apple rapidly built a critical mass of applications for its new phone while spending very little. (The contrast with Apple's rival Nokia, which eschewed such an approach when promoting its Symbian system, is striking.) Given the success of the iFund, it is not surprising that similar efforts have been launched by, among others, Research in Motion (to encourage the development of third-party applications for the BlackBerry) and Facebook (which teamed with Kleiner, Amazon, Zynga, and other tech luminaries

to establish the sFund, devoted to promoting companies that work with social media sites).

Increased demand. The iFund also serves as an example of a different kind of leveraging: By encouraging the development of technologies that rely on the parent corporation's platform, venture investments can help increase demand for the corporation's own products. Intel Capital took this approach in late 1998, when it established a fund that would help speed the entry of Intel's next-generation semiconductor chip into the market. Fund managers invested in many software and hardware makers (often Intel competitors) whose products capitalized on the new chip's power. Those investments accelerated the chip's adoption by several months, according to Intel.

Intel Capital also played a role in seeding companies developing wireless internet products around the 802.11 network standards, which had been championed by Intel: In the five months before the 2003 introduction of the wireless-enabled Centrino chip set, the fund revealed its intention to invest \$150 million in Cometa Networks and other companies that were promoting the adoption of Wi-Fi networks. The rapid uptake in Intel's wireless products in subsequent years reflects the company's success in using corporate venturing to create an ecosystem of wireless players.

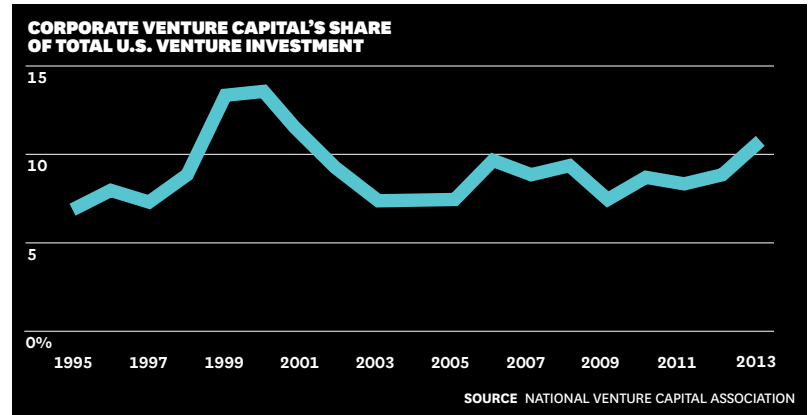
Higher returns. Finally, there's the purely financial aspect of venturing. For independent VCs, making money for the limited partners is the primary if not the sole object. For corporate venture funds, gaining strategic benefits is usually the main goal; profits from venturing typically aren't significant enough to matter to the parent company's bottom line. Still, profits are always nice to have.

Companies bring a lot of value to the start-ups they fund, in the form of reputation, skills, and, of course, resources—from research scientists to sophisticated laboratories to armies of salespeople. They also change the way outside investors view the young firms' prospects. Private and public equity investors often anticipate that a corporation-backed start-up will ultimately be bought by the company that invested in it—and at an attractive valuation, reflecting the strategic benefits the start-up can offer its new owner.

Thus it's perhaps not surprising, as Thomas J. Chemmanur, of Boston College, and Elena Loutskina, of the University of Virginia's Darden School of Business, have shown, that start-ups backed by

A RISING TIDE

Large companies have been wary of creating corporate VC funds; the median life span of these funds has been about one year. But as disappointment with R&D grows, there are indications that corporate venturing is gaining ground—even in a lackluster environment for traditional venture capital.



corporations are more likely than typical VC-backed firms to attract the attention of high-quality market players—from investment banks to equity analysts to institutional investors—when they go public. During their first three years as public companies, the researchers found, firms backed by corporate venture funds show better stock price performance, on average, than those backed by traditional venture groups.

Making It Work

Despite corporate venturing's compelling logic, venture funds sometimes run into trouble. Billions of dollars have gone down the drain as corporations have struggled to deploy their venture capital groups effectively. Most of the problems are rooted in incompatibilities between two mind-sets: that of the risk-loving, sometimes ruthless venture capitalist, and that of the process-bound corporate executive. If companies aren't careful, their venture capitalists can become ensnared in the agendas of myriad corporate stakeholders or demotivated by inadequate or poorly designed financial incentives. And the parent company can miss out on valuable knowledge. These six steps can help companies avoid the pitfalls.

Align goals with corporate objectives. Alignment of goals across the venture fund, the start-ups, and the parent company enables a corporate venture group to draw on the parent's expertise. Without that alignment, corporate venturers are less likely to make good investment decisions and attract high-caliber

entrepreneurs—and useful knowledge is less likely to flow from the start-ups to the corporate parent.

In a study of financial returns from more than 30,000 investments in entrepreneurial firms, Paul A. Gompers, of Harvard Business School, and I found that corporate venture funds are more successful if the stated focus of the corporate parent and the business of the portfolio firm overlap. In comparison with start-ups that aren't linked with the company's goals, well-aligned start-ups are less likely to be terminated and more likely to go public, produce higher numbers of patents within four years of going public, and have better stock price performance.

Streamline approvals. A venture fund's goals should be not only aligned with the parent company's but also few in number. A streamlined approval process can help. In many companies, various internal constituencies must approve these funds' goals—a situation that can lead to absurd results. When IBM abandoned its Fireworks Partners after two years, the fund's initial proposed investments were still tied up in internal review with numerous divisional vice presidents. Delays like this not only drive corporate venture professionals crazy but also signal to external investors and start-ups that the fund is ineffective.

A tortuous approval process inevitably burdens the fund with too many goals. To please R&D, the fund might aim to gain knowledge about emerging technologies. To please the business development group, it might look for start-ups that could become acquisition targets. To satisfy the CFO, it might aim for a certain threshold of financial returns. Managers' energies are spread too thin, and the fund wanders from goal to goal with no clear objective.

This problem contributed to the spectacular failure of Exxon Enterprises' venture-capital effort. The program began in 1964 with a mandate to exploit technologies in Exxon's corporate laboratories. It then shifted to making minority investments in industries from advanced materials to air-pollution control to medical devices. It later changed course again, focusing on computing systems for office use. Before the initiative was abandoned, in 1985, the computing-systems investments alone had generated an estimated \$2 billion in losses.

A complicated corporate decision process can also lead to ineffective investing patterns. If getting approval is arduous, investments are made only when top executives are fired up and motivated to act quickly—usually because the media are hyping a

particular technology or market segment. But these are usually the worst times to invest, with valuations high and probable returns low. A streamlined approval process allows a venture fund to act quickly on promising but unheralded investments, thus enabling a contrarian approach that might lead to the identification of neglected opportunities.

Provide powerful incentives. Corporate venture professionals often expect the level of compensation and the incentives that independent VCs enjoy. But corporate leaders are typically troubled by the disparity between what venture managers expect to earn and the compensation of executives with comparable seniority in other parts of the company. And they prefer to provide incentives that are tied to the performance of the company, not of particular investments. "We can't have people in separate rowboats," General Electric's Jack Welch once said, in reference to a venture team's incentives. "We don't want anybody in our company going to a meeting with a different interest from everybody else."

Start-ups that are aligned with the parent company's goals are more likely to go public and have better stock price performance.

But treating venture investors like other managers can lead to a loss of talent and motivation on venture teams, and a lack of focus on long-term corporate goals. Corporations that fail to provide adequate incentives face a steady stream of defections once junior investors master the venture process. After too many board meetings for which the corporate investor parks his Fiesta next to the independent venture capitalist's Ferrari, the temptation to go elsewhere becomes overwhelming. The corporation, having borne the cost of training the investor, doesn't reap the benefit of his or her expertise. GE itself paid the price: In 1998 and 1999, GE Equity lost 18 investors, a number of whom went on to leading VC firms.

Eli Lilly's venture initiative was at first an organic part of the company—its venture capitalists were corporate employees without any profit share. After a slew of defections, Lilly analyzed compensation levels and found that only the most junior staffers at Lilly Ventures were being rewarded at anything like a market level. Still, the company's senior management and HR professionals resisted changing the pay scheme. It wasn't until 2009 that Lilly's management

Create an experimental, failure-tolerant mind-set. Risk aversion can be a serious problem for a corporate venture-capital fund. Sometimes that attitude stems from the corporate parent's culture. When a venturing team boasts that no firms in its portfolio have been shuttered, corporate executives may interpret the announcement as a sign of success. But given the nature of the entrepreneurial process, and the fact that a significant fraction of

After a slew of defections, Lilly discovered that only the most junior staffers at Lilly Ventures were being compensated at anything like a market level.

agreed to turn the venture group into a freestanding organization.

For recruitment and retention, compensation levels in a corporate venture initiative should match those offered by independent venture groups. At the same time, pay should be linked to corporate goals as well as start-ups' long-term performance.

In a study of corporate venture funds, Gary Dushnitsky, of London Business School, and Zur Shapira, of New York University, found that those that closely linked pay to demonstrated investment success (often, both financial and strategic returns to the corporate parent) were more likely than others to make successful investments and to invest in earlier-stage companies—evidence that they were nimbler and more aggressive.

Indeed, many of the programs with the greatest stability—in terms of both management team and mission—have been characterized by high-powered incentives. An example is GlaxoSmith-Kline's SR One, which operated under a single head, Peter Sears, from 1985 to 1999. During most of that period, the corporate VCs received 15% of the profits they generated and bonuses, based on less tangible benefits to the corporation, that could represent as much as 5% of the fund's capital gains. This approach kept venture investors sensitive to both their financial objectives and the parent company's strategic needs.

independent venture investors' transactions end in failure, the perfect record may be a signal that the team is playing it too safe, investing in companies with an eye to avoiding failure.

Well-structured incentives can help: They can focus corporate venturers on maximizing investment success, whether strategic or financial, and minimize their worries about getting their knuckles rapped for shuttering investments or selling start-ups at a loss.

Stick to your commitments. While it's important to terminate moribund projects, it's also important not to walk away from promising ones. A low level of corporate commitment to good projects can be highly damaging to a fund and its investments. Sometimes merely a change in top personnel can prompt a company to rethink its commitment to venturing in general and to various investments in particular. In some organizations, it's a ritual for new executives to discard their predecessors' projects.

But if a parent company is seen as a fickle investor, professionals will be wary of joining its venture unit, entrepreneurs will be reluctant to accept its funds, and independent VCs will be hesitant to join in, setting off a death spiral.

To attract high-caliber outside investors to their venturing efforts, companies should adopt the attitude of independent VCs: As long as a start-up is healthy, commitments are binding. If a limited

partner contributes even a small amount of the total capital promised at the time of closing, there is an expectation that the total amount promised will be provided. Even during the depths of the financial crisis, it was rare for investors to walk away from those commitments.

Harvest valuable information. Knowledge doesn't automatically flow from start-ups to the large organizations that have invested in them—at least not in a timely manner. The barriers to knowledge transfer are many: The corporate venturing and business development groups may be located far from the firm's central operations. Everyone is busy with day-to-day tasks. There's a cultural gap between the young MBAs who dominate most venture teams and the firm's senior executives. And, of course, the fledgling technologies being developed by portfolio companies may not seem applicable within the corporation. But a failure to give the corporate parent access to the knowledge generated in its investments defeats a large part of the intelligence-gathering logic of corporate venturing.

Companies cannot leave knowledge spillovers to chance. Nor can they simply put an operating manager on the board of each portfolio firm to be the parent company's eyes and ears, as GE and others have done. A manager running a 2,000-person refrigerator assembly plant is unlikely to have much time to worry about a 10-person start-up that doesn't seem to be working on problems of immediate relevance to the corporation.

One of the most successful methods I've seen for transferring knowledge from start-ups to corporate parents is the creation of linked units dedicated to this task. This was the approach taken by the U.S. Central Intelligence Agency's venture-capital program, In-Q-Tel. Founded in 1999 to acquire novel technologies, the fund primarily made equity investments in young firms, many of which had developed products for the private sector—for instance, technologies for detecting card counters in casinos. It was difficult for people in these young companies to identify who in the intelligence community might be interested in their technologies, and it was hard for intelligence professionals to imagine how consumer-oriented technologies might be adapted to their needs—to see, for example, how software for identifying MIT students at the Caesars Palace blackjack tables could be used to identify Al Qaeda members. Moreover, communication between the start-ups' executives and the Agency's product de-

velopers was severely constrained by limits on sharing classified information.

To address this challenge, In-Q-Tel adopted a two-part structure: A Silicon Valley-based venture team closely mirrors a traditional group, in which general partners and associates scout deals, perform due diligence, prepare term sheets, and shepherd portfolio companies. A technology team in Arlington, Virginia, focuses on assessing new technologies, testing the appropriateness of portfolio firms' offerings for the Agency, and interacting with intelligence officials. Unlike the venture team, which tends to be dominated by former entrepreneurs and new MBAs, the technology team consists largely of seasoned executives with experience in intelligence. The two units share information in a way that allows In-Q-Tel to learn what's going on in Silicon Valley without divulging sensitive information to portfolio firms.

In-Q-Tel's situation highlights an essential lesson: If corporate venturing programs are to succeed, corporations need to invest as much in learning from their start-ups as they do in making and overseeing deals.

TO PEOPLE with little experience of company-backed investments in start-ups, it may seem contradictory to juxtapose the words “corporate” and “venture”—the one with its connotations of administrative complexity, the other with its aura of big ideas and big paydays. The apparent incongruity is probably one reason why corporate venture funds sometimes don't get the respect they deserve within the VC community. Robert Ackerman, of Allegis Capital, once wrote disparagingly that when corporate fund managers arrive to make investment deals, “four guys get out of the car with their corporate tee shirts and singing the company song,” while the independent investors around the table see these naive fellows' employers as “the dinosaurs we're trying to kill, the market opportunity we're trying to capture.”

But the data show that well-managed corporate venture funds can hold their own with independent VC firms, and even outperform them. For companies that have found traditional in-house research unequal to the task of generating valuable insights into next-generation technologies or the movements of the market, the creation of a venture fund might well prove to be what executives are always looking for—the breakthrough idea that changes everything. ♣

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