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Closing the Growth Gap: Balancing "Big I" and "small i" Innovation

George S. Day

To achieve growth goals, many firms play it safe with incremental innovation. Here, George Day analyzes the strategies and processes needed to support higher-yield, but riskier, innovation. GE, Praxair, and Philips offer case examples.

Report Summary
Organic growth is the main driver of a firm's stock market value; yet most managers doubt they can consistently reach their firm's ambitious growth targets. One reason is that spending on safe, incremental projects tends to displace more ambitious, but riskier growth initiatives. In this commentary, author Day describes the processes and strategies needed to support higher-yield, "Big I" innovations. He offers examples of several firms—among them GE, Praxair, and Philips—that have overcome the centripetal pull toward "small i" initiatives to realize "Big I" opportunities with higher risk-adjusted returns.

As the pressure for organic growth intensifies, the number of growth initiatives soon outstrips the capacity of the firm to bring them to market. The internal traffic jam that results further damages and delays all these initiatives. The antidote is a disciplined process for managing organic growth, along with sustained top management commitment that is supported with adequate resources.

The growth process starts with a realistic assessment of the inevitable gap between the ambitious goals for growth and the more limited prospects for growth from the momentum of the current strategy plus the projects already in the portfolio of growth initiatives. Achievable goals can then be set for each source of future growth.

The next step is an expanded search of the three domains for organic growth: deeper market penetration, expansion into adjacent markets, and exploration beyond adjacencies. The portfolio risk matrix shows that adjacent markets offer the best combination of revenue and profit growth with a tolerable level of risk. The risk estimates in the matrix are based on an extensive database of post-audits of successes and failures.

The full potential of each growth initiative will be realized with rigorous screening to identify points of weakness and flawed assumptions, and the risks that have to be contained. Day proposes a "Real-Win-Worth It" screening process based on three questions: Is there a *real* market and a *real* product? Can we *win*? Is it *worth* doing? Risks can be contained by probing and learning (making cautious investments to accumulate learning), collaborating and sharing with partners (using partners, suppliers, and specialized contractors to absorb some risk), or waiting in readiness to be a "fast-follower." ■

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Introduction

Organic growth has risen to the top of CEO agendas in four of every five companies.[1] These executives know that the expectation of superior organic growth is the most important driver of enterprise value in capital markets. It is also less expensive than growth by acquisition since firms typically pay a premium in capital costs to acquire other businesses. Yet only 29% of managers of large-cap firms were highly confident they could reach their organic growth targets.[2] Judging from the available evidence, their lack of confidence is justified.

Why is profitable organic growth so hard to sustain? One school of thought emphasizes external constraints. In this view, companies are mired in saturated price-competitive markets, pressured by customers who themselves are squeezed, and forced to compete for incremental share gains with rivals who follow similar strategies (Kim and Mauborgne 2005). Their antidote is to explore new market spaces with new business models and offer a better customer experience. While this may offer an appealing growth path, the returns may not compensate for the higher risk and long delay on returns. This proposal also does not account for the growth records of Wal-Mart, Dell, and IKEA who methodically leverage their low-cost business models in closely adjacent markets.

Other "pathologists" of organic growth disappointments point to pervasive organizational impediments: short-term incentives that subvert long-term objectives, risk-averse cultures, and inferior innovation capabilities. Eighty percent of CFOs of major U.S. corporations report that they would hold back on discretionary spending designed to fuel growth if they were likely to miss their quarterly earnings target (Lahart 2004).

The combined effect of these external and internal impediments to growth is that incremental "small i" innovation displaces "Big I" innovation and discontinuous growth initiatives. "Small i" projects make up 85% – 90% of average development portfolios (Foster and Kaplan 2001). Although such projects are necessary for continuous improvement, they don't change the competitive balance or contribute much to profitability (Hanssens 2005). By contrast, one study found that 14% of a sample of business launches of discontinuous or substantial innovations accounted for 61% of profits (Kim and Mauborgne 1999).

This bias toward safer, incremental line extensions and product improvements seems to be intensifying. Between 1990 and 2004 the proportion of "new-to-the-world, true innovations" in development portfolios dropped from 20% to 11.5% (Cooper 2005). Even the less ambitious development of products "new to the company" dropped by one-third. There are many reasons for the growing emphasis on "small i" innovations.

How "small i" Displaces "Big I"

Tunnel vision

Market incumbents are prone to miss the early weak signals of market opportunities that offer openings for rivals.[3] For example, by the time of its IPO in 2004, Google had emerged from the periphery to pose a substantial threat to incumbents such as Microsoft (Web browser and search), Amazon (search for products), Yahoo! (email, search, and other services), and even eBay. The blinders that limit the peripheral vision of organizations include: (1) confusing and random noise, which masks early signals so their meaning is hard to discern, (2) delay, dilution, or failure in communicating an early signal of a promising opportunity that is received deep in the organization, and (3) the myopia that results when short-term metrics focus attention on immediate issues.

Exploitation versus exploration

There is a well-known organizational trade-off between activities that exploit existing capabilities and those that explore new market spaces

and create breakthrough innovations that stretch capabilities.[4] Process management methods that emphasize the reduction of variance in organization processes tilt this uneasy balance toward exploitation. When the mindset and methods of business process re-engineering, Six Sigma, and ISO 9000 are applied to innovation processes they tend to displace the inherently divergent and variance-increasing activities needed for creative exploration. Slowly—and perhaps imperceptibly—the choices of projects to develop are steered toward incremental and more certain opportunities (Benner and Tushman 2002, 2003).

Short-termism

Most financial yardsticks are biased against the deferred payoffs and uncertainty of "Big I" innovations. A "small i" project can be readily assessed with a discounted cash flow (DCF) analysis. The market is known or knowable, the technology is available, time-to-market is short, and risks can be calibrated from past experience. When a "Big I" project is assessed through a DCF process, the returns seem unappealing, given the long payback period plus a hefty risk premium added to the cost-of-capital. Further, these projects seldom get credit for the real options value they create in terms of follow-on opportunities.

Resource constraints

Longer-term investments in innovation are further displaced when customers and salespeople make urgent requests that soak up development time and resources as pressing "small i" projects get priority. Meanwhile, R&D budgets are held constant or tightened to meet short-term earnings targets.

Assessing Innovation Risks

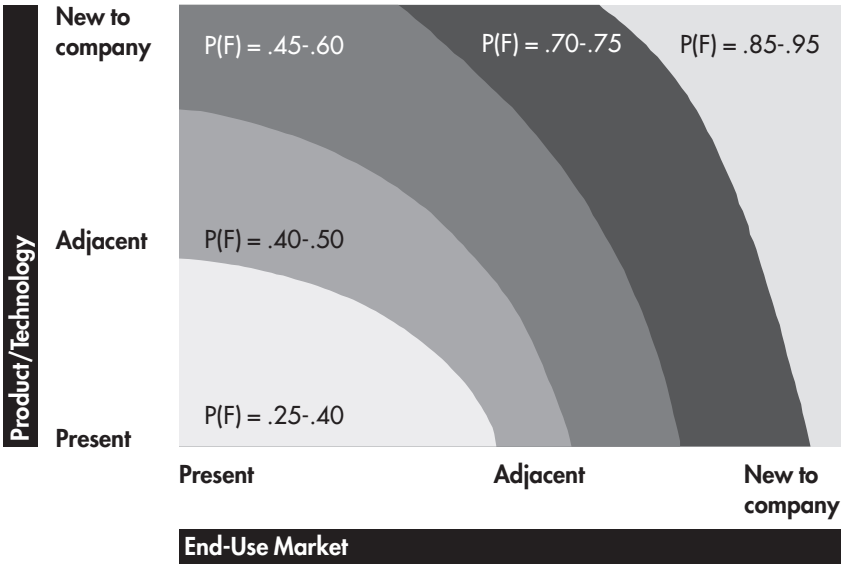
The aversion to "Big I" growth strategies is rooted in the belief that potential rewards will be accrued too far in the future at too high a risk. This belief imposes costs that need to be understood. Even though the actual rewards may be realized far in the future, the equity markets account for them in their expectations of (suitably discounted) earnings. If the firm is viewed as mired in slow-growth markets, vulnerable to emerging technologies, and lacking a compelling story about its future growth thrust, the stock price will surely suffer.

Risk aversion has other consequences. Certainly the probability of failure goes up sharply when the business ventures beyond incremental initiatives in familiar markets. This should not be an excuse for passivity. The solution is to properly assess the risks and then seek creative ways to reduce the risk exposure. The risk matrix in Figure 1 contrasts the probability of failure of different growth paths and calibrates the risks of unfamiliar markets and technologies.[5] This matrix has many sources, including consulting reports by firms such as A.T. Kearney, the extensive literature on the economic performance of acquisitions and alliances, and numerous post-audits of growth initiatives. The ranges in probabilities absorb some of the variability in the definitions of "newness" and "failure."

Failure is defined as significantly missing the objectives that were used to justify the investment in the growth initiative. These risk estimates have been extensively validated in interviews with consultants and senior managers and are consistent with recent surveys that place the overall failure rate of new products close to 40%. Because most discounted cash flow analyses of growth initiatives require a sizeable risk premium, the superior rewards anticipated from highly risky projects are indirectly considered.

There are several qualifications to keep in mind when applying the matrix. The probabilities do not apply to fast-moving consumer goods (where incremental innovations have high long-run failure rates) or ethical pharmaceuticals, and do not distinguish whether "new to the company" is also "new to the world." Also, "new markets" refers to new customers, not new geographies.

Figure 1
Balancing Risk and Reward along the Growth Path



P(F) = Probability of failure

As the risk matrix shows, it is far less risky for a business to launch a new product or technology into a familiar served market, than to adapt a current product to a new end-use market. Market risks are much greater than product risks because there are more dimensions of uncertainty, including competitors, channels, and consumers. If the market is entirely unfamiliar, the firm doesn't even know what it doesn't know—and the knowledge is hard to acquire. Market risks also tend to arise much later in the product development process, and are harder to resolve. A further complication is that an existing brand name may have no meaning in a "new to the company" market. Because prospective buyers lack any experience, they view the new entrant as risky and need special inducements to try the new product.

The location of a particular growth initiative in the matrix requires deep insight. McDonald's abortive effort to offer pizza was initially viewed as an adjacent product for the current market. But pizza was actually a "new to the company" product because it didn't fit the basic service delivery model. No one could figure out how to serve a pizza in 30 seconds or less. This meant that service flow rates were disrupted, and pizzas couldn't be served through the drive-in window. A postmortem of the failure revealed that McDonald's brand name didn't give them permission to offer pizza. While the demographics of pizza consumers were roughly the same as their core fast-food market, they arrived with different expectations.

Shifting toward "Big I"

Some firms have been able to overcome the centripetal pull of innovation resources toward cautious, lower-yield "small i" growth initiatives and improve their organic growth rate. This requires visible and vocal top management commitment, supported with resources and incentives. A disciplined organic growth process is also needed to deliberately shift the balance of the portfolio of growth initiatives toward opportunities with higher risk-adjusted returns.

General Electric has tackled this challenge on a number of fronts. CEO Jeff Immelt started by boosting the organic growth goal from 5% to 8% per year (Brady 2005), which meant finding an additional $3.4 billion in organic growth each year. This stretch goal challenged the organization to think more expansively about new business, new geographies, and new customer segments. This also signaled top management's commitment to organic growth, because they were also backed up with adequate resources.

Many steps were taken to encourage fresh thinking at GE including diversifying the top ranks with outsiders (in a break from their "promote-from-within" history), keeping executives in their positions longer so they become deeply immersed in their industries, and tying executive compensation to new ideas, improved customer satisfaction, and top-line growth. The leaders of each GE business were required to submit at least three "Imagination Break-

through" proposals per year promising at least $100 million in additional growth.

Growth initiatives that offer breakthrough potential are awkward to manage within the constraints of the existing organization. Fledgling "Big I" initiatives may need to share resources such as brand presence, manufacturing expertise, or market access with the established units. An "ambidextrous" solution (Tushman and O'Reilly 1996, 2002) is to house the initiative in a structurally independent unit with its own processes, structures, and culture, but still integrated within the existing senior management hierarchy.

AT GE, the lead role for the "Imagination Breakthrough" growth initiative was given to the marketing team within each of the 11 business units. This was a startling departure for a company with a mindset that emphasized superior products and technology. Until recently, there were no marketers among the senior ranks and no coherent approach to marketing beyond building communication programs and designing product launches.[6]

The GE Imagination Breakthrough program aimed to shift the balance toward "large I" growth initiatives, by giving the organization permission to break away from the "tyranny" of past success, and take calculated risks. By early 2006, there were about 100 growth initiatives underway within GE, ranging from business model innovations and new ways to segment and serve the global energy market, to products for new market spaces such as small super-efficient jet engines for the next generation of air taxis. Preliminary projections were for an extra $33–$35 billion of top-line growth from three to five years in the future. The 35 best projects were subject to monthly CEO reviews—a strong signal of commitment. This also encouraged the sharing of best practices and the further search for cross-division business opportunities.

Putting Discipline into the Organic Growth Process

As the top-down pressure for organic growth intensifies, the number of growth initiatives is likely to expand faster than the capacity of the organization to bring them to market. The result is an internal traffic jam.

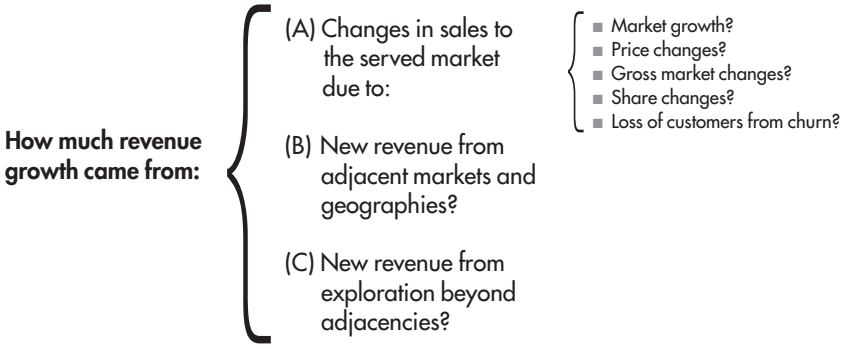
As one example, a leading firm in activator systems suffered from having too many projects to absorb. They were entering a number of new markets and expanding their line while shifting from hydraulic to linear induction technologies. Few projects were properly completed. Instead of fully prepared "releases" with tested new products, they had "product escapes." They were pressured to push new products out the door without adequate sales training, documentation, or support, which spawned a host of problems that had to be fixed later.

Assessing the growth gap

A disciplined process starts with a realistic assessment of the size of the gap between the goals for revenue and profit growth and the projections for growth from the current business, in order to set achievable goals. This is followed by a systematic expansion of the search for new growth opportunities that are properly screened to reveal their potential and managed so risks are contained. Praxair offers an example.

In 2003, this global maker of industrial gases set out to find $2 billion in revenue growth in the next five years (Sanderude 2005). One half was to come from acquisitions. The other half required double-digit organic growth at the rate of $200 million per year. This was far beyond the annual growth that could be realized from repackaging helium, hydrogen, oxygen, and other gases. This goal was broken down into actionable categories: the first 15% would come from incremental growth in the base business and new channels for serving current markets; the rest would come from new services such as nitrogen injection of oil and gas wells, servicing

Figure 2
Decomposing Sources of Growth



the helium coolant used in MRI magnets, and developing new reactor cooling and nitrogen injection cooling methods for the bioscience industry.

These growth initiatives came from an intimate knowledge of changing customer needs that could be met with Praxair's existing capabilities in industrial gas production and delivery and their mastery of combustion, freezing, and metal fabrication technologies. The lead role in exploring the market, articulating and screening the opportunities, and orchestrating the specific projects was assigned to marketing, with sustained top management support and oversight. As a clear signal of commitment, the CEO of Praxair spent one day per quarter reviewing the growth prospects for each business. The pay-off was immediate: the $200 million growth target was exceeded by $30 million in 2004.

Setting achievable goals

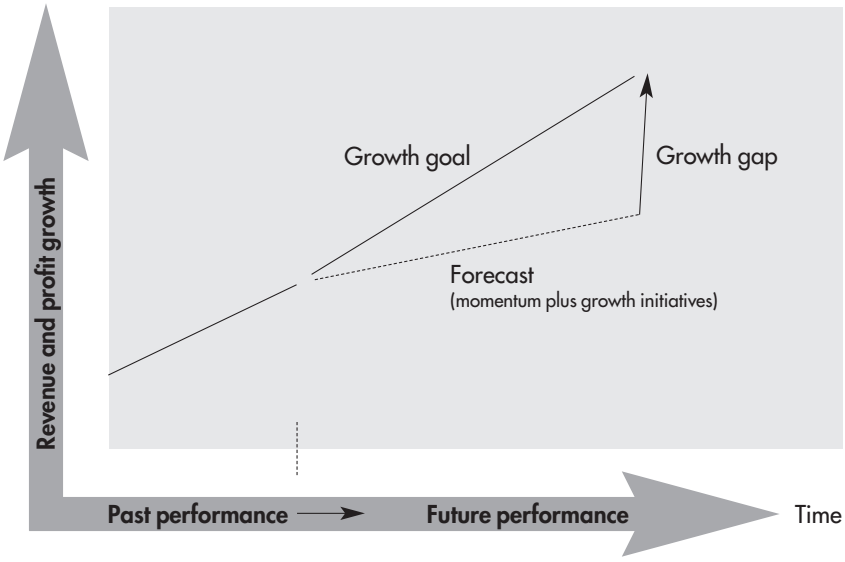
Since growth goals are initially set from the top down, to meet the demands of the financial markets for revenue and profit growth, there is a widening gap between increasingly aggressive goals and increasingly risk-averse portfolios. These goals usually do not reflect either the likely *momentum* of the business (the revenue and profit growth that the present strategy can yield in light of the known threats and opportunities in the market) or the *prospects*, *timing*, or *riskiness* of the available growth initiatives. To understand what is achievable–rather than what is desired–management needs to dissect the sources of past growth and then set realistic goals for each source of future growth. The starting point is the decomposition[7] of the prior year's revenue growth into the sources for potential revenue growth that are described in Figure 2.

The next step is to forecast revenues from each proposed growth source in the next three to five years. It may be surprisingly difficult to compile all the growth initiatives that are underway. R&D will know all about the technology and new product initiatives. But other growth initiatives may be dispersed through the organization: marketing may be exploring a new end-use market with a joint venture partner, while senior management may be investing in early stage start-ups, or considering a business model innovation.

Assessing the contribution of these growth initiatives begins with the subjective location of each on the two axes of the risk matrix. A useful graphic can be created by plotting each initiative as a bubble, with areas proportional to the planned investment or the forecast revenue stream. The average of the forecast risk-adjusted revenues of the initiatives—weighted by relative size—shows the "center of gravity" of the growth portfolio. A comparison of the forecast risk-adjusted revenue and profit from the portfolio and the growth goal reveals the growth "gap". See Figure 3.

Sometimes a subjective assessment is all that is needed to reveal the health of the portfolio. Using this type of assessment, a European healthcare and beauty aid maker found that 95% of its development projects were package changes, line extensions, and other incremental improvements designed to match competitive moves and react to demands from important customers. New platform projects and breakthrough technology development were starved for resources.

Figure 3
The Growth Gap



Once the growth gap is estimated in light of the available growth initiatives, trade-offs must be negotiated. For example, it may be possible to achieve the revenue growth goal but not the earnings goal—or vice versa. Most likely, there will be an expanding growth gap to be filled with a directed search for better opportunities.

Expanding the Search for Growth Opportunities

"There are no mature markets—only mature marketers."
David Johnson, CEO, Campbell Soup

The key to finding attractive growth opportunities is a systematic search of the three feasible domains for organic growth described in Figure 2.[8]

- Penetrating the served market
- Expanding into adjacent markets
- Exploration beyond adjacencies

Penetrating the served market

The first priority is to protect market share, which usually means proliferating the product line to match rivals or satisfy customer demands. The next avenue for growth is to capture market share from rivals. This can be costly and counterproductive if it invites retaliation, which will likely happen if the move is so clearly visible that it leads to price cutting, feature matching, or an escalation of marketing spending. Defenders have several advantages in this struggle, including deeper knowledge about their current customers and lock-in arrangements that make switching costly.

Market penetration strategies can be myopically imitative—yielding "me too" offerings and meager rewards—or inspired "innovative imitations" that combine deep insights into changing market needs and a willingness to study rivals deeply. SoBe (South Beach Beverage Company) became a leader in the new-age soft drink market by using "innovative imitation" to learn from rivals such as AriZona Beverage Co., Snapple Beverage Corp., and Mistic Brands, Inc. It also exploited three converging trends: the emphasis on healthier foods and beverages, the growing acceptance of natural or holistic treatments, and the aging of the baby boomer segment. Their irreverent brand attitude also helped them stand out from the rivals. Growth was further accelerated by line extensions such as herbal tonics that took them toward the nutriceuticals market.

Among the surest ways to further penetrate a market is to retain a higher percentage of customers than the competition (Day 2003). Cutting the churn rate by 2% directly adds 2% to revenue growth. However, reducing defections by this amount will not be accomplished with cosmetic changes such as easily imitated loyalty programs or the latest CRM software. There must be deep insight into the reason for defections, which will be especially hard for those businesses that don't even know their defection rates. The entire organization must be aligned to retention as a priority supported by incentives, structural changes, information management, and leadership that is impatient for improvement.

Expanding into adjacent markets

Other strategies may edge the firm outward from the served market while keeping close to familiar territory (Zook 2004). For most firms this growth path offers the best combination of revenue and profit growth at a tolerable level of risk.

Adjacency strategies are often motivated by two questions: (1) How can we leverage or extend our existing competencies into adjacent markets? (2) Which of the functions that our customers perform could we perform better? General Electric has used these questions to great effect to guide the evolution of the company toward services. The Aircraft Engine Business Group now sells "power by the hour" with a package of engines, servicing, certification, and financing alternatives and a commitment to deliver the right engine to an aircraft when the airline needs it.

A growth trajectory can be accelerated by the convergence of supportive trends. Thus FedEx found opportunities in global components handling that emerged from trends in globalized freight flow, outsourcing demands, and Internet availability. Trends may emerge from fringe markets and extend outward. For example, snowboarding, microbreweries, and extreme sports have become popular with wider audiences.

Strategies for pushing the boundaries of a business into adjacent products, markets, channels, or geographies are most successful when they combine inside-out and outside-in thinking. The aim—to find promising market opportunities that leverage the competitive strengths of the core business—requires a superior ability to anticipate latent or emerging needs of prospective customers in the adjacent market zone.

Seeking Adjacencies from the "Outside-In." The departure point here is expansive thinking about the structure and boundaries of the market. When Merck began planning the launch of their nonhormonal drug Fosamax for treating osteoporosis (which causes bones to become more porous and gradually weaker and more brittle), there was no way to readily measure bone mass, and the only sure indication of osteoporosis was a fracture. Thus, the market was narrowly defined as those with an existing fracture because of bone loss. Merck's strategy was to broaden the indicated use of the drug from treatment to prevention of bone loss. They first held a trial using a new and convenient bone-mineral testing machine to redefine osteoporosis as loss of bone mass density. With a successful trial they were able to get key influentials to support a shift in the diagnostic guidelines. A second trial showed that Fosamax could not only slow bone loss, but helped reverse its process and reduce the incidence of hip fractures. In this way, Merck broadened their market to include the 34 million women in the U.S. with low bone mass. They could also support the brand claim that Fosamax "builds bone to preserve independence." Worldwide sales growth grew from less than $300 million in 1996 to $3.2 billion in 2004.

Seeking Adjacencies from the "Inside-out." A winning value strategy leverages an internally consistent value-creating system that meshes together capabilities, assets, and culture, with a strategy that gives it meaning and direction. Thus, price value leaders grow best by leveraging their low cost value system within similar markets. The European low-cost airline easyJet has expanded into car rentals, cruises, and Internet cafes (although with mixed results), and may launch easyBus.co.uk and easyDorm.com. The common denominator is a high-convenience and low-cost value-creating system, which achieves high utilization to cover fixed costs, with great appeal to price-sensitive tourists, small business people, and backpackers. All of these new businesses are "no frills" operations that vary prices according to demand, use low-cost locations, and sell only through the Web. The same logic explains why Dell is growing successfully in printers, low-end servers, and storage systems, and why Wal-Mart can experiment with used cars, financial services, and flower delivery.

Companies with different value-creating systems will find their best growth paths by pushing out their boundaries in other directions (Day 2004; Moore 2005). *Relational value leaders* like IBM, which succeed by offering solutions and superior service, are best suited to growing by broadening the definition of a solution, taking over the activities of customers, and exploring activity adjacencies. *Performance value leaders* like Pfizer, GSK, or Medtronic grow by innovating continuously. Their value-creating systems deploy decentralized, loose-knit teams that value discovery and probe-and-learn experimentation.

Exploration beyond adjacencies

Some organic growth initiatives stretch the firm into unfamiliar territory on either the product or market dimension. The expertise that helps the firm navigate adjacencies with some confidence is no longer relevant. At the extremes are discontinuities that stretch the connection with the core competencies of the firm to the degree that there is no discernable connection to the key success factors in the new market.[9]

Discontinuities may still hold interest if they fall into one of two broad categories of innovation. The first exploits a disruptive technology such as nanotechnologies, intelligent materials, smart sensors, digital imaging, and the myriad of breakthroughs in genomics and proteomics. However, it is often hard to know in advance if there will be a disruptive or a sustaining innovation.

The second type of discontinuity finds new ways to deliver customer value through creative strategic thinking rather than a technological breakthrough. Thus Callaway, rather than simply improving on the existing club designs, innovated with the Big Bertha to help golfers hit the ball more easily. Bloomberg came to the fore in online financial services by redefining the buyer for data terminals as the trader and analyst, rather than focusing on the IT manager. While the former wanted features-rich terminals with tailored analytical screens, the latter wanted standardized systems at the best possible price.

Screening for Learning

In the mid-nineties, 3M almost killed a struggling project to develop computer privacy screens using their proprietary micro-louver technology. Five years later, this product was the basis of one of their fastest-growing businesses.

A troubled development history with two unsuccessful launches, plus nagging concerns about the small size of the market for privacy screens, and salesforce resistance had put the product development team on probation. A rigorous screening of the project revealed flawed assumptions and numerous holes in their understanding of the true opportunity in the adjacent markets for antiglare filters for computers. Armed with deeper insights into the market, and the potential risks, they launched a full line of screens that leveraged their brand name and sales presence.

To reduce the possibility of screening errors based on faulty assumptions, and to help identify areas where corrective action was needed, 3M has since adopted the Real-Win-Worth It (R-W-W) screen (sometimes known as the Schrello screen)[10] to evaluate the 1,500 projects in their development portfolio.

Many firms, including GE and Honeywell, also use a version of the R-W-W screen. This is a robust and simple—but not simplistic—framework based on three sequential questions:

- Is there a *real* market and a *real* product (that someone could make)?
- Can we *win*? Can our product or services be competitive? Can our company be competitive?
- Is it *worth* doing? Is the return adequate, at an acceptable risk? Are there other strategic considerations?

While the R-W-W screen has face validity, it gains the greatest acceptance by managers when the questions are drawn from the firm's own

experiences with successes and failures. The questions in Appendix 1 were developed from over 50 post-audits of failures in two companies that asked, "What questions could we have asked that might have prevented the failure, if they had been properly answered?" For example, one company had failed with a promising laminate technology that clearly improved the performance of high speed circuit boards. After the fact, they learned that while technical people were interested in the merits of their materials solution, manufacturing people had found cheaper ways to improve circuit board performance. By not asking "Is there any other way for the customer to achieve the same result?" they didn't realize that, while the market was real, their product was not competitive.

It is most appropriate to use the R-W-W screen as a learning tool throughout the development process—not just at the early stages. The word "screening" connotes a "go-kill" choice which is antithetical to learning for improvement. That choice should only be made after all avenues for improvement have been explored, and any negatives—on one of the major branches—cannot be neutralized.

Containing the Risks

A healthy portfolio of growth initiatives promises superior returns with a "tolerable" level of risk. While risk is unavoidable, it can be contained by delaying large and irreversible commitments as long as possible, sharing gains and losses with partners, and getting early warnings of problems so that corrective action can be taken. These aims can be achieved with: (1) probing and learning, (2) collaborating and sharing, and (3) waiting in readiness.

Probing and learning

Cautious investments can be made to reveal markets or understand the potential of a new technology through successive approximations and accumulated learning. The aim is to create "real options." If the initiative is successful the company can exercise the right to make larger investments. Should the probe fail to deliver, the company has only risked the seed money it has put into the initiative.[11]

Philips Lighting designed a number of small initiatives that provided hands-on experience with new solid-state technologies—from launching LED (light-emitting diode) candles to creating ambient lighting systems for a hospital. "We have used a launch-and-learn strategy to learn about the application of solid-state lighting, as well as try out new business models," said Govi Rao of Philips (interview). "These experiments allow us to monitor many factors such as channel conflicts or cannibalization effects. By creating pilots, we minimize risks. If we make mistakes, we make them small and change them quickly."

Some experiments in a portfolio will not have an immediate payoff. For Philips, a lighting environment installed in an urban hospital explored more far-reaching applications of solid-state lighting. Philips' experiments tested not only the technology but also new business models, value chains, and market reactions. All of this helped to illuminate the potential of this new market space.

Within the discontinuous zone, where the prospects are dismal and even acquisitions have a poor track record, the imaginative strategist can still find opportunities to learn. These could be educational acquisitions to learn about the market, internal venture groups that acquire knowledge about emerging markets and technologies via licenses, or minority equity stakes in start-ups. The objective is to shift the discontinuous innovation into an adjacency growth initiative where the risks are more palatable.

Collaborating and sharing

The "share to gain" approach to containing risk looks to partners, outside suppliers, and specialized contractors to absorb some of the risk or reduce it with their superior skills, experience, and market insights (Huston and Sakkab 2006;

Chesbrough 2003). This is a big departure from the "not invented here" or NIH mindset that still subverts many innovation processes. There are many ways to collaborate and share, such as:

Use knowledge brokers such as InnoCentive or Nine Sigma, to quickly tap into a much wider array of technology solutions than a company could possible reach on its own. These brokers facilitate a direct dialogue between a company with a need for a technology solution, and a vast pool of potential problem solvers outside the company. Universities and research labs perform the same function by offering innovations for sale and inviting companies to sponsor research projects.

Open up the innovation process. Most companies are genetically disposed to start with a product and then see if there is a market, rather than aiming to create a better customer experience. However, a growing number are teaming up with design firms such as IDEO that have robust processes for designing better customer experiences. The design firm orchestrates the innovation process—based on the client's strategy brief—and the client participates in all the consumer research, analyses, learning, and refinement of the innovation. This helps overcome one of the biggest innovation risks, that good ideas don't go anywhere because key players in the organization don't have something concrete to work with.

Take equity stakes in innovators. These investments offer visibility into emerging technologies or markets that are relevant but very risky. The stakes are not large, so the initial risk exposure is small, and further investments are made only when the opportunity becomes more promising. This is also a way to bypass an entrenched business model, and overcome corporate inertia.

Sharing costs and capabilities. The risk matrix highlights the dangers of entering unfamiliar end-use markets. This is one of the most persuasive arguments for seeking a joint venture partner with market access and insights. Although joint ventures have only a 50% probability of success, this is still better than absorbing all the risks of a new market on your own.

Waiting in readiness

Some companies simply wait for the fog of uncertainty to lift, so they can have a clearer picture of the risks. There is a price to be paid, since the rewards from a more certain investment will surely be lower.

Some firms consciously accept this trade-off by adopting a fast-follower posture by waiting for a dominant design to emerge and set the standard for product features and benefits that command the support of early buyers. Once this occurs, fast-followers must move fast in order to shape the market. This means being as ready as any first mover, having the technology in hand, the product design ready, and the manufacturing or sourcing plans in place. Otherwise, the window of opportunity will be missed.

Conclusion

Although internal and external forces may push firms toward investments in "small i" innovation, a number of firms are demonstrating that a disciplined process for managing organic growth initiatives can yield consistently higher rates of growth. A shift toward "Big I" organic growth requires a realistic assessment of the growth gap—in order to set achievable goals—followed by a directed expansion of the search for new growth opportunities that are properly screened to reveal their potential and managed so risks are contained. ■

Appendix 1. Real–Win–Worth It Screening Factors

Is It Real?

1. Is the market real?

Is there a need/want?
What kind of need?
How is it presently satisfied?
How often? Duration?
How good is the evidence?

Can the customer buy?
What is the size and potential of the market?
What is the decision making process?
Availability of customer funds?

Will the customer buy?
Perceived risks/benefits?
Expectations on prices, availability, standards, and constraints?

2. Is the product real?

Is there a product concept?
Modification of existing product?
New to the world?
Acceptability? (legal, social, environmental)

Is the concept feasible?
Can it be made? Is the technology available?
Does it satisfy the needs?
Do the specifications exist?

Will it satisfy the market?
Will it offer a relative advantage over existing products?
Can it be produced cost-effectively?
Are the risks perceived by customers acceptable?
What barriers to adoption?

Can We Win?

1. Can our product compete?

Do we have a competitive advantage? Can it be sustained?
Performance? Features?
Patent protection?
Potential barriers to entry?
Is the price competitive?
How else could the customer satisfy the same need? solve the same problem?

Is the timing right?

Does it fit de facto standards?

Does it fit our brand name? (Is the brand equity transferable?)

Competitor responses?
How much will they improve? How soon?
New entrants?
Reactions to our entry?
Trajectory of price?

2. Can our business be competitive?

Do we have superior resources?
Engineering production?
Market access? Coverage?
Financing?
Fit with core competencies?
Potential weaknesses? How can they be corrected?

Do we have the management?
Related or direct experience?
Fit with culture?
Development process skills? (Can we get to market quickly?)
Is there sufficient commitment? (Is there a champion?)

How well do we know the market?
Customer behavior? Responses?
Competitive behavior and capabilities?
Channel reactions?

Is It Worth Doing?

1. Will it be profitable?

Is the return adequate?
Break-even and net present value?
Is it superior to other alternatives?

Can we afford the project?
Timing of cash outflow?
Timing of sales and profits? Duration?
Impact on other products?

Are the risks acceptable?
Sensitivity of financial forecasts to changes in assumptions re price? Market growth? Competition?
What could go wrong? Likelihood and seriousness of impact? What can be done to limit risk?

Strategic considerations
Fit with growth strategy?
Contribution to enhancing existing competencies/utilizing resources?
Impact on brand equity?
Follow-on opportunities = options value? Does it open up to new markets? Prospects for follow-on business?
Will it enhance or degrade relationships with key external stakeholders? (dealers? distributors? government? regulators?)
Does top management like it?

Notes

1. *The Global CEO Study 2004*, conducted by IBM Business Consulting Services, as quoted in D. Meer, "Can a Chief Growth Officer Rev Up Growth?" *Marakon Commentary* (Winter 2005), 1–6.

2. As reported by D. Meer, op.cit.

3. This section draws on George S. Day and P.J.H. Schoemaker (2006), *Peripheral Vision: Detecting the Weak Signals That Will Make or Break Your Company*, Cambridge, Mass.: Harvard Business School Press.

4. The trade-off was most clearly identified by J. March (1991), "Exploration and Exploitation in Organizational Learning," *Organization Science* 2, 71-87, and further elaborated in D. Levinthal and J. March (1993), "The Myopia of Learning," *Strategic Management Journal* 14, 95–112.

5. These estimates of risk are similar to these reported by G. C. Hartmann and M. B. Myers (2001), "Technical Risk, Product Specifications, and Market Risk," In R. Branscomb and P. E. Averswald, *Taking Technical Risks*, Cambridge, Mass.: The MIT Press. See also C. R. Davis (2002), "Calculated Risk: A Framework for Evaluating Product Development," *Sloan Management Review* (Summer), 71-7.

6. The contribution of a strong market orientation to innovation performance is demonstrated in K. Kyriakopoulos and C. Moorman (2004), "Tradeoffs in Marketing Exploitation and Exploration Strategies: The Overlooked Role of Market Orientation." *International Journal of Research in Marketing* 21, 219–40, and J. C. Narver, S. F. Slater and D. L. MacLachlan (2004), "Responsive and Proactive Market Orientation and New Product Success," *Journal of Product Innovation Management*, 21, 334–47.

7. This is an adaptation of the sources of revenue statement described by M. Treacey and J. Sims (2004), "Take Command of Your Growth," *Harvard Business Review* (April), 127–33.

8. For other perspectives on opportunities for organic growth, see also Christensen and Raynor 2003; Zook 2004; Slywotzky and Wise 2003; McGrath and MacMillan 2005; and Sawhney, Wolcott, and Arronz 2006.

9. For further discussion of explorations beyond adjacencies when discontinuities are involved, see E. Danneels (editor) (2006), "Dialogue on the Effects of Disruptive Technology on Firms and Industries," *Journal of Product Innovation Management* 23 (January), 2–55.

10. The basic sequential Real-Win-Worth It framework for new product evaluation is attributed to Schrello Associates, and has since been adapted by many companies.

11. See the "reserving the right to play" strategy by H. Courtney, J. Kirkland, and P. Viguerie (1997), "Strategy under Uncertainty," *Harvard Business Review*, (November/December), 67–79, and H. Courtney (2001), *20:20 Foresight*, Cambridge, Mass.: Harvard Business School Press.

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