

## THE TRAP OF CONVENTIONAL THINKING

Obvious, Intuitive  
and Wrong

By RITA GUNTHER McGRATH

In many industries today, competition is a Hobbesian environment in which life is “nasty, brutish and short.” Daily we read about once-great companies that have stumbled when their environments changed. Though leaders are criticized for failing to heed the early warning signs or not taking strategic action aggressively enough, I would propose that the real dilemma often has nothing to do with poor leadership or lack of vision. When leaders are ineffective at directing their organizations in uncertain conditions, the real culprit is often that they are using the wrong mental models and the wrong tools.

My central argument here is that under uncertainty, leaders can fall into the trap of using conventional rather than entrepreneurial thinking. Conventional thinking has worked well for them in the past; why change now?

Before considering a better approach, it is instructive to first understand why the lure of conventional management is so seductive for leaders.

**What Worked in the Past**

Companies quite appropriately focus on their core activities and the activities associated with success. Indeed, the punishment for companies that are perceived to be insufficiently focused can be stern indeed, contributing to what some investors call the “conglomerate discount.” The theory is that companies that compete by investing in businesses with related business models, assets and some synergistic effects will outperform companies whose businesses are more diverse.

Witness, for instance, calls for General Electric CEO Jeff Immelt to break up the company into smaller, more manageable pieces, which are

The leadership challenge is to recognize that, in changing environments, practices that were highly effective at one time begin to become liabilities.

transparent to investors. Indeed, in many cases, creating a more narrow area of focus for a company can produce remarkable results.

Two examples along these lines would be Texas Instruments, which in the late '90s divested most businesses that were not related to digital signal processing; and Nokia, which in the early '90s divested a broad range of businesses to focus on mobile telecommunications. In both cases, the companies' move to greater focus improved their performance.

A second and related practice is to invest in projects and initiatives that promise to strengthen the core business, while showing relatively little interest in those ideas that lie outside it. This tendency is reinforced by commonly used financial tools, such as the calculation of a net present value or an economic value-added figure to justify expenditures on new projects.

Inevitably, such financial tools favor projects whose outcomes are more predictable, and put those projects that are more speculative or risky at a disadvantage. The use of such tools also provides a reassuring – if false – quantification of the financial terms of the project.

In addition to investing to support the core business, conventional practice also discourages investment in businesses that have the potential to cannibalize it. Powerful people in the organization, who got where they are by driving the core business' success, are highly resistant to it being threatened. They, in turn, can undermine new businesses that may have enormous potential but which require different skills or capabilities or which could steal sales away from the existing business.

Finally, in the heady days of early success, companies become quite expert at extracting value from their customers in the form of high margins, which can create extremely attractive profits. Often a key managerial goal is to preserve those margins in whatever way is possible, often by leveraging the power that a supplier has over a buyer. This is particularly acute in cases in which

**EXECUTIVE SUMMARY**

**Past success can become** tomorrow's liability. But instead of throwing out the old and taking a bold leap into the new, leaders in uncertain times should focus on creating conditions for internally generated growth. Columbia's Rita Gunther McGrath presents a portfolio of opportunities that managers can employ, including a questionnaire to help you pinpoint the greatest sources of uncertainty in the business, and thereby focus your investments in learning accordingly.

the cost to produce the first product or offer is extremely great, but the marginal cost of reproduction is inexpensive. Examples would be pharmaceuticals, in which manufacturing prescription tablets is relatively inexpensive relative to the cost of discovering and developing a new drug; and packaged software, in which the cost of reproduction is virtually zero. Companies in industries such as these have enormous incentives to drive big profits in order to recover their cost to create the products in the first place.

The leadership challenge is to recognize that in changing environments, these practices, which were highly effective at one time, begin to become liabilities. As competitors catch up and markets mature, once-core business activities can become commoditized. Witness IBM's struggles with its PC business. The company wrestled with the highly competitive, thin-margin business for years, before eventually exiting the category by selling the PC division (to the Chinese company Lenovo). Similarly, branded packaged goods companies face threats from in-store or white-label products, which consumers perceive as offering the same value as the branded versions.

Ironically, at the time that the outcome of commoditization might have been averted with investment in new, differentiated or innovative

offers, the motivation to explore new areas unconnected to the core is nonexistent: Why invest in unrelated areas when the core business is doing so well? Advocates for diversifying projects struggle, with the result being that companies under-invest in options for the future. The difficulty of investing beyond the core is particularly acute when resources for new projects are controlled centrally, with high hurdle rates for corporate level sponsorship.

### Mistaken Responses to Signs of Trouble

Although it isn't difficult to identify the risks of changed circumstances, it is difficult for leaders to accept that life is not going to go on as it had in the past. Denial takes over. For example, in the article "Video Dial Tone" published in the *Journal of Services Marketing* back in 1994, the authors predicted that "music may be purchased by the song," and speculated how this would change the fundamental business model of the music industry. A decade and a half later, the industry's leaders are still in denial that the fundamental business they had grown accustomed to – selling music by CD – has fundamentally changed. Instead of investing to learn how their business might transition to a new model, the responses were almost entirely defensive. They tried to keep the traditional business going by putting file-sharing services such as Napster out of business, suing their own customers and trying to enforce digital rights management protocols (with somewhat disastrous results, as Sony's experience with a PC-harming DRM illustrates). The industry only acquiesced to the sale of mu-

sic by the song in 2003 when it came to terms with Apple to sell music via its iTunes stores. In supporting their core business, music industry executives have not invested to find a different model. LiveNation, for example, has gone from simply organizing concerts to managing artists' complete commercial lives, in some cases treating CDs as giveaway marketing tools for lucrative concert tours.

Eventually, however, the truth that an existing business model is losing its viability becomes overwhelming. A common next response is to redouble efforts to improve the core business or find a new core business. Kodak, for instance, responded to the early commercialization of digital imagery among consumers with a proposed device that would convert film-based images to digital images, but would keep film as the principal medium for capturing images, not direct-to-memory digital storage. In parallel, Kodak began a long and unsuccessful series of attempts to find new sources of business growth. The company diversified into electronic publishing, batteries, floppy disks (purchasing Verbatim in 1985 and selling it in 1990), pharmaceuticals (Sterling Drug, sold in 1994) and do-it-yourself and household products (L&F Products, sold in 1994). A series of talented executives took the CEO role, including George Fisher, former chairman of Motorola (1993), Daniel Carp, Kodak's president and COO (2000), and currently Antonio Perez, former president and COO who had been brought in from Hewlett-Packard (2005). Their tenures were marked with significant moves into and out of a disparate array of businesses (including copiers, document management, medical imaging, dental imaging and software, and picture archiving systems) and near continual downsizing. Sadly, in 1999 the company had 80,650 employees; by the end of 2007, this number had been chopped to only 26,900. In 1999, the company had revenues of over \$14 billion; as of the end of 2007, it reported revenues of \$10.3 billion. The firm has sustained losses every year since 2005. The stock in 2007 is nearly exactly where it was in 1965.

Some companies conclude that what is really needed is a bold leap into the unknown. Often, this represents a company from a more traditional sector trying to make a move into a fast growth industry. In many cases, these ventures simply don't work because the company is attempting to manage them as though they were

Leaders in uncertain times should be creating the conditions for "organic" growth. Some core practices include looking at portfolios of opportunity.

the core business. Enel, a utility, went into telephony. AT&T entered the computer business, which it exited painfully. Revlon bet the company on Vital Radiance, a cosmetics line for older women, but pulled it from store shelves the same year it was introduced.

Once those efforts to grow fail, downsizing is often the next step. While downsizing can make a lot of sense if it involves exiting a slow-growth business or bringing a shrinking business to the right size, it needs to be accompanied by an emphasis on growth, or it can sap the lifeblood of a company over time. Watson Wyatt Worldwide found that less than half of the companies it surveyed met profit goals after downsizing. Mercer Management found that 68 percent of its downsizers didn't achieve profit growth for five years. And Bain & Co. found mass or repeated layoffs led to underperforming the market over a three-year period. The "anorexic corporation" has no resources for new business development.

### The Entrepreneurial Alternative

Instead of being lulled into a false sense of security about the robustness of their existing business models and falling victim to the dilemmas I have described, leaders in uncertain times should be creating the conditions for internally generated (sometimes called "organic") growth. Some core practices include looking at portfolios of opportunity, using financial disciplines that are consistent with investing under uncertainty and differentially managing the core versus new businesses.

**1. MANAGE A PORTFOLIO OF PROJECTS THAT BUILDS APPROPRIATE DIVERSITY INTO YOUR PLANNING HORIZON.** While there is no doubt that a lack of focus can be strategically dangerous, excessive focus can leave your company vulnerable to setbacks in the core business. An alternative is to constantly evaluate and re-evaluate your business portfolio, making sure that it contains sufficient diversity to offer alternatives should the core business falter.

**Table 1** illustrates an opportunity portfolio. The horizontal axis represents market and organizational uncertainty. This type of uncertainty has primarily to do with customers. The vertical axis represents technical and execution uncertainty. This kind of uncertainty has to do with technical capabilities or technical unknowns. In the hypothetical portfolio depicted in the figure, projects or initiatives are depicted as bubbles. While there are different ways of showing the bubbles, a useful approach is to make the size of the opportunity relevant to the size of the bubble, and then provide some indication of the expense or risk of each project for assessment. What then becomes obvious is whether the way budgets and projects are being managed is aligned with the strategy of the company.

Enhancement launches are those investments that more or less support the existing core business. In addition to these, my research concludes that at least two other investment categories are important. The first category, which is often the start of a new core business, comprises major new platforms. These are different from the core, but note that they are not high uncertainty.

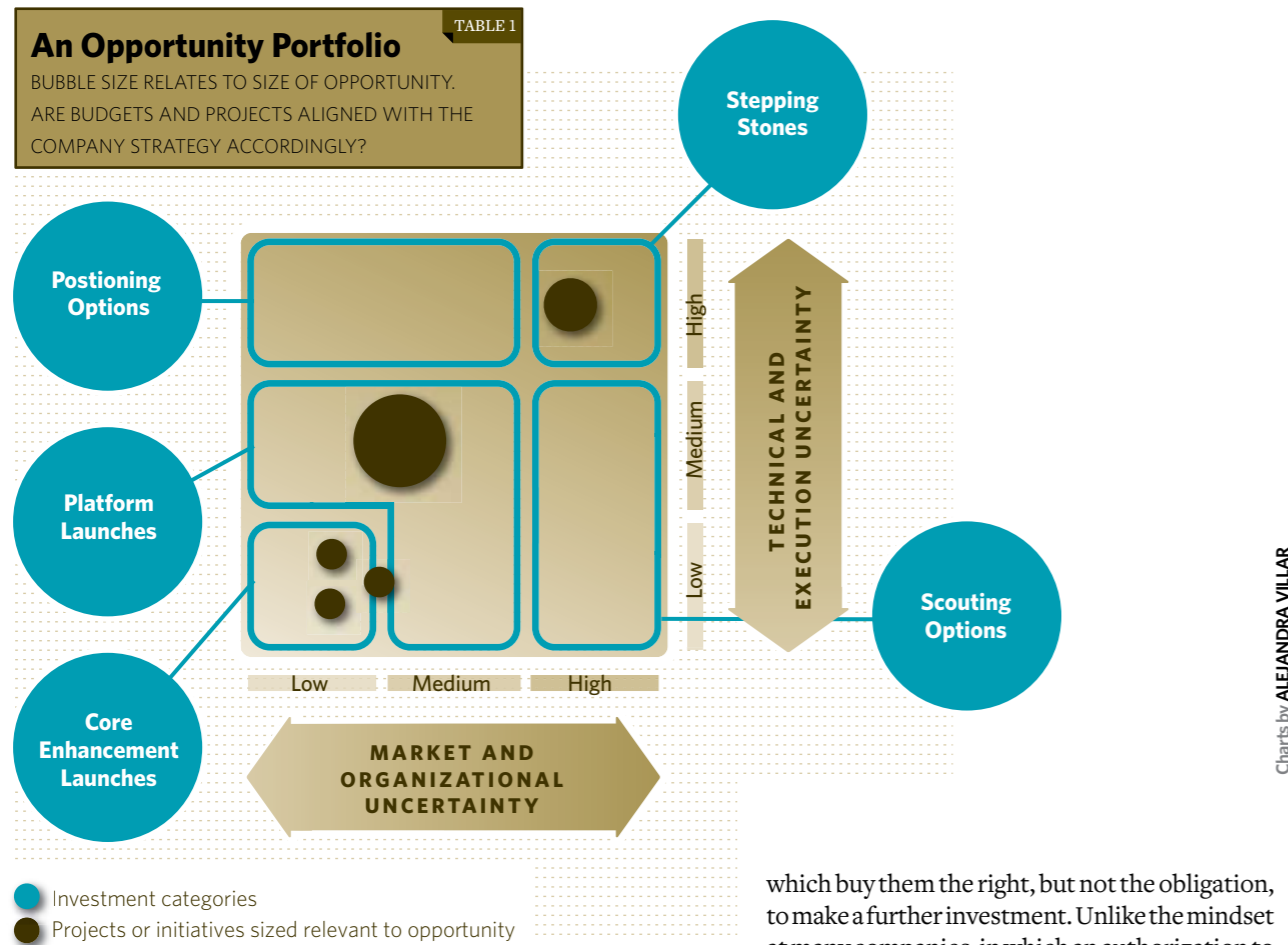
Because they often require substantial investment, they do contain an amount of risk. Sadly, companies often starve these platforms because they compete with the core business for resources and are not yet able to generate cash flows of their own. Furthermore, unless driving new platform development is rewarded and thought highly of in the company, leaders may shy away from the career risk of a big, uncertain project.

The experience of United Parcel Service (UPS) illustrates how investing in new platforms can create significant opportunities for growth. Back in the mid-'90s, when the Internet was still in its infancy as a business tool, Ken Lyon, the logistics group's Information Services director, spearheaded an effort to create Internet-enabled logistical services, which would position UPS as

### ABOUT THE AUTHOR

**Rita Gunther McGrath**, associate professor at Columbia Business School in New York City, is a popular speaker and facilitator, well known for her expertise in the areas of strategy, innovation and growth. She has co-authored two books, *The Entrepreneurial Mindset* (2000) and *Market-Busters: 40 Strategic Moves That Drive Exceptional Business Growth* (2005), both published

by Harvard Business School Press, and is currently at work on her next one. Prior to joining Columbia in 1993, she was an IT director, worked in the political arena and founded two startups. Her Ph.D. is from the Wharton School, University of Pennsylvania. She has participated in IESE conferences, including "Leading Growth in Difficult Times" held on IESE's Madrid campus.



Charts by ALEJANDRA VILLAR

SOURCE: McGrath, R.G., and Ian MacMillan. *The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty*. Boston: Harvard Business School Press, 2000.

a contender in the global logistics business. This technology eventually became a core capability that fostered UPS's growth strategy of helping its customers to synchronize their operations, going into logistics and information support, well beyond simply delivering packages.

Best practices for making investments that position your company to cope with uncertainty are to decide how many and what kind of strategic projects your company will need to achieve corporate goals. Then, allocate funds and talent to each type according to that decision. As projects are reviewed, make sure that like compete with like – options with options, core enhancements with core enhancements, and so on.

**2. WHEN MAKING HIGHLY UNCERTAIN INVESTMENTS, USE REAL OPTIONS REASONING.** Options are small investments companies make today,

which buy them the right, but not the obligation, to make a further investment. Unlike the mindset at many companies, in which an authorization to proceed with a project is seen as an authorization to proceed to launch, an options mindset instead favors funding projects in their initial stages, testing to see whether they are viable, and only releasing further funds if answers are positive.

Three kinds of options can create valuable opportunities.

**Positioning options** are learning investments made when it is clear that there is a market demand for some kind of solution, but not clear which solution will prevail. The only way to find out is to experiment, or to learn from the experiments of others.

Let me illustrate: It has long been recognized that a solution for transporting heavy cargo to landlocked or remote areas is highly desirable for companies in the military, logistics and petroleum businesses. Over the years, many companies have explored solutions, among them the ill-fated CargoLifter project, effectively creating positioning options. Observing the investments made by others and recognizing how to solve potentially thorny problems has now emboldened

KEYWORDS

conventional, investment, entrepreneurial, learning, core practices, mindset, portfolios of opportunity, real options, positioning, scouting, stepping stones, differential management, assumptions, knowledge

Boeing to enter into a joint venture with SkyHook International to create a combination blimp and helicopter. While it is too early to estimate the project's success, should they break through the technical barriers to offer the service at a reasonable cost, this option could well become a new platform for both companies.

**Scouting options**, the next category, represent cases in which a company has a capability that they would like to develop, but are not quite sure which format or which attributes to deploy for given customer segments. Experimentation, this time with different approaches to the market, characterizes the options in this area.

When Microsoft tried to extend the reach of its operating system to emerging markets, the company spent substantial time creating marketplace experiments with users. In one trial, the company gave PCs loaded with different operating systems to users and observed their experiences when offered incentives to switch after a period of time. The end result of all this work was Windows Starter Edition, which has proved popular in its target markets and which has been translated into multiple languages.

Finally, **stepping stone options** represent situations in which there is so much uncertainty that placing a big bet would be foolhardy. In these situations, we recommend introducing the offer in an early adopting market that really needs a solution, even if the market is not at all related to the future markets a company might seek to access.

A current example is the way in which nanotechnology is being developed. In the long run, nano-enabled technologies are envisaged to revolutionize entire industries, such as manufacturing and health-care delivery. In the near term, what is nanotechnology being used for? To help Levi's produce wrinkle-free Dockers pants. This makes a lot of sense: By deploying the technology in some way, the producing companies are learning a lot about how the technology works, while generating some cash flow to offset the investment in development.

**3. DIFFERENTIAL MANAGEMENT.** fear of cannibalization and excessive investment in high-risk projects can be offset by practicing differential management. Core businesses do well when managed with one set of disciplines; ventures and entrepreneurial businesses with a different set. Managers need the wisdom to be able to tell the difference and then to manage each type appropriately.

One of the biggest differences between a core business and an entrepreneurial one is what colleagues and I have termed the difference in the Assumption:Knowledge ratio. Businesses with a low ratio – such as your core – can be managed conventionally. In such situations, the measure of a good plan is how close results came to expectations, and failure rates should be low. In a high-ratio situation, opposite disciplines apply. In an entrepreneurial situation, the measure of a good plan is not whether results and expectations aligned. Rather, the measure is how much was learned for as limited an investment as possible. Similarly, high failure rates are acceptable, provided that the cost of failure is kept very low. You can afford a lot of high-learning failures if they don't cost very much. Unfortunately, what I see over and over again is that well-intentioned managers will try to impose the same planning and control discipline that worked well in the core business onto the new businesses, unintentionally undermining them.

Together with the mindset that acknowledges the highly experimental and fluid nature of uncertain new projects are other practices that honor the principles of real options reasoning and maximizing learning. Planning is about learning, not about being right. Facilitating learning are continuous project reviews at key checkpoints, when new information is available. Documenting and testing assumptions is absolutely key. By adopting these practices for new projects that are uncertain, leaders can provide a nurturing environment for new ideas, ideally before the pressure on the existing core business is evident.

**Estimating Uncertainty** TABLE 2

TO WHAT EXTENT DO YOU FEEL YOUR TEAM UNDERSTANDS EACH OF THE FOLLOWING ASPECTS OF YOUR PROJECT?

PROJECTS INTENDED TO GENERATE REVENUES DIRECTLY	PROJECTS THAT ARE NOT INTENDED TO GENERATE REVENUES DIRECTLY
<p>SCALE &gt;</p> <p>We have no idea at this stage 1 2 3 4 5 We know exactly</p>	
<input type="checkbox"/> Key sources of <b>revenue</b>	<input type="checkbox"/> Key sources of <b>funds</b>
<input type="checkbox"/> Who key <b>customers</b> are	<input type="checkbox"/> Who key <b>clients or users</b> are
<input type="checkbox"/> The customer <b>need</b> being satisfied	<input type="checkbox"/> The client/user <b>need</b> being satisfied
<input type="checkbox"/> The <b>competition</b> you face in filling this need	<input type="checkbox"/> The <b>competition</b> you face in filling this need
<input type="checkbox"/> Where, when and how customers will <b>use</b> your offering	<input type="checkbox"/> Where, when and how clients will <b>use</b> your offering
<input type="checkbox"/> <b>Risks</b> to the customer of buying your offering	<input type="checkbox"/> The <b>risks</b> to the client of using your offering
<input type="checkbox"/> How to <b>price</b> your offering	<input type="checkbox"/> How to assess the <b>value</b> of your contribution
<input type="checkbox"/> <b>Legal</b> or regulatory matters affecting your business	<input type="checkbox"/> <b>Legal</b> or regulatory matters affecting your business
<input type="checkbox"/> The main <b>sources of risk</b> to your firm	<input type="checkbox"/> The main <b>sources of risk</b> to your firm
<input type="checkbox"/> <b>Support services</b> that must be provided	<input type="checkbox"/> <b>Support services</b> that must be provided
<input type="checkbox"/> The cost of <b>resources</b>	<input type="checkbox"/> The cost of <b>resources</b>
<input type="checkbox"/> How key <b>operations</b> need to be carried out	<input type="checkbox"/> How key <b>operations</b> need to be carried out
<input type="checkbox"/> Factors that interfere with operations <b>reliability</b>	<input type="checkbox"/> Factors that interfere with operations <b>reliability</b>
<input type="checkbox"/> Factors that interfere with output <b>quality</b>	<input type="checkbox"/> Factors that interfere with output <b>quality</b>
<input type="checkbox"/> <b>Costs</b> of your operations	<input type="checkbox"/> <b>Costs</b> of your operations
<input type="checkbox"/> Major <b>bottlenecks</b> preventing improved operations	<input type="checkbox"/> Major <b>bottlenecks</b> preventing improved operations

Administer this questionnaire to team members, getting them to score themselves on a scale of 1 to 5. With the scores in hand, you can immediately see where the team is operating with extremely high Assumption: Knowledge ratios by looking at the lowest-scoring items. You can then invest in those particular areas.

SOURCE: The development of this survey is taken from the following paper: McGrath, R.G., M.H. Tsai, S. Venkataraman and I.C. MacMillan. "Innovation, Competitive Advantage and Rent: A Model and Test." *Management Science* 42, no. 3 (1996): 389-403.

### Where Should You Invest in Learning?

So far, we have considered why good companies so often fall into the traps of either over relying on the core business or moving into uncertain areas with the same tools and mindset in use in the core business. I have proposed that thinking in terms of options for the future can be quite helpful in avoiding a myopic focus on core business issues. With options, however, it is sometimes difficult to ascertain where learning investments might be most helpful. To discover this, the questionnaire in Table 2 (developed from my own dissertation research) can be helpful.

You would administer the questionnaire to people knowledgeable about a particular initiative or to team members. Responses should be collected and compiled in confidence. As you can see, the questions relate to various issues about which a team member might be uncertain, with a score of "1" signifying that they have very little knowledge, and a score of "5" indicating where the levels of knowledge are quite high. With the

team scores in hand, you can immediately see where the team is operating with extremely high Assumption: Knowledge ratios by looking at the lowest-scoring items. You can then have a discussion and debate about whether making investments to create more knowledge with respect to those particular topics could help facilitate valuable learning.

Although this article has proposed that it is all too easy for leaders to fall into the trap of applying seemingly intuitive and sensible but wrong practices, the positive message is that there is considerable understanding about how to create a more entrepreneurial process that avoids these traps. Managing a portfolio across different levels of uncertainty, using real options reasoning, tolerating high failure rates as long as costs are contained, and applying differential management are all techniques that have been proven to be helpful as leaders face uncertainty. Finally, the questionnaire can help you pinpoint the greatest sources of uncertainty in the business, and thereby focus your investments in learning accordingly. □

#### TO KNOW MORE

This article presents conclusions from a series of studies about venturing and growth. Among these were a longitudinal three-year study of more than 30 corporate ventures at Citigroup, a four-year study of venturing at Nokia, and McGrath's dissertation research, which involved the longitudinal study combining quantitative and qualitative data collection from 35 corporate ventures in five organizations. In each study, McGrath and colleagues attempted to learn why some companies appear to thrive in uncertain conditions and others struggle. Readers will find these studies and the main conclusions described in the following papers:

- Keil, T., R.G. McGrath and T. Tukiainen. "Gems from the Ashes: Capability Creation and Transformation in Internal Corporate Venturing." *Organization Science* (forthcoming).
- McGrath, R.G., and T. Keil. "The Value Captor's Process: Getting the Most Out of Your New Business Ventures." *Harvard Business Review* 85, no. 5 (2007).

- McGrath, R.G. "The Misunderstood Role of the Middle Manager in Driving Successful Growth Programs." In *The Search for Organic Growth*, edited by E.D. Hess and R.K. Kazanjian, 147-171. Cambridge, England: Cambridge University Press, 2006.
- MacMillan, I.C., and R.G. McGrath. "Crafting R&D Project Portfolios." *Research-Technology Management* 45, no. 5 (2002): 48-59.
- McGrath, R.G. "Exploratory Learning, Adaptive Capacity and the Role of Managerial Oversight." *Academy of Management Journal* 44, no. 1 (2001): 118-131.
- McGrath, R.G. "Advantage from Adversity: Learning from Disappointment in Internal Corporate Ventures." *Journal of Business Venturing* 10 (1995): 121-142.
- McGrath, R.G., I.C. MacMillan and S. Venkataraman. "Defining and Developing Competence: A Strategic Process Paradigm." *Strategic Management Journal* 16 (1995): 251-275.