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ACADEMIC RESEARCH THAT MATTERS TO MANAGERS: ON ZEBRAS, DOGS, LEMMINGS, HAMMERS, AND TURNIPS

ANITA M. McGAHAN
University of Toronto

A physician I met some time ago leads a small, private organization dedicated to the invention of specialized medical devices. During a recent meeting in his office, I noticed a stack of technical medical articles on his desk. He told me that he used them in making decisions about the clinical requirements for device prototypes and asked me for comparable articles on the management challenges that he was currently facing: finding investors, managing the physician-engineering interface, and thinking through the biosocial implications of introducing new medical devices in the field. A few days later, as I delivered to him a handful of reprints of articles on strategic management, I worried that they might not be quite as helpful as the technical medical articles on which he regularly relies.

The five major ways that academic researchers have succeeded in translating their academic work into articles for managers (1) generate counterintuitive insights, (2) demonstrate that fundamental business practices are changing in an important business activity, routine, or practice, (3) show that a widely used management practice violates important principles, (4) suggest a specific theory to explain an interesting and current situation, and (5) identify an iconic problem, phenomenon, or activity that opens new areas of both academic inquiry and management practice. I illustrate opportunities for future research in each of these categories using examples from work on industry change. The conclusion includes a brief discussion of academic approaches to managerial writing that fail.

WRITING FOR A MANAGEMENT AUDIENCE IS DIFFICULT FOR ACADEMIC RESEARCHERS

It is difficult to conduct research that is managerially relevant and also meets the standards of rigor in the academic field of management. Managers don't care about disciplinary boundaries. They want to know how to solve specific problems quickly. Many are familiar with the fundamental business disciplines of accounting, marketing, human resource management, operations, sales, distribution, organizational behavior, economics, and finance. Although they may have the patience for "big picture" thinking, the published work that is most relevant to their problems tends to be specialized, technical and, more than anything, integrative. For example, the physician-CEO needed to know how to coordinate the general functions of R&D, distribution, and marketing to introduce a medical device that physicians will want and engineers can make operational.

As the other essays in this section indicate, the standards for rigorous research in our field do not square neatly with these requirements (Gulati, 2007; Markides, 2007; Tushman & O'Reilly, 2007; Vermeulen, 2007). Because rigorous research in strategic management is tethered by comparability, statistical significance, and theoretical principle, it is usually descriptive or normative rather than prescriptive. On top of that, publishable academic articles in our field are contingent analyses that do not offer universally applicable insights about management situations (although there are some exceptions). The appetite for integrative solutions leaves room for practitioner-authors who are not constrained by academic standards of rigor. Their presence raises the bar on relevant, integrative insight and makes it even more difficult for researchers within the academy to write to practitioners.

OVERCOMING THE CHALLENGES

Despite the challenges, there are several approaches to managerial relevance that have been proven to work for researchers who also publish in academically refereed journals. I have drawn this list of approaches from my experience and judgment about the most successful articles for managers written by academics and based on their research. There are also other approaches that work, but the following are the most prevalent.

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Conventional Wisdom Is Inaccurate and Misleading: Your Horse Is a Zebra, and Zebras Can't Be Tamed

The first approach is the most accessible of the five listed here. It is to report counterintuitive insights or to debunk conventional wisdom on the basis of either applied theory, as in Brandenburger and Nalebuff (1996), or large-scale empirical analysis, as in Porter (1980) or Markides and Geroski (2004), and as suggested by Vermeulen (2007). The fact that this approach is easy to understand does not mean that it is easy to accomplish, however. The challenge is to identify some new category of problem, activity, or situation and then to show how the new categorization enables different approaches that ultimately lead to better performance. Often much of the academic research that led to the insight is left out of the management article. What is offered to managers is integrative in the sense that it is based on a broad analysis, but specific in that the managerial implication is focused on the narrow differences between categories. Porter (1980), for example, showed that buyer power and supplier power should be analyzed separately. Brandenburger and Nalebuff (1996) identified complementors as a category of industry player distinct from providers of substitute products. Markides and Geroski (2004) focused on the threats not only of innovating pioneers but also of innovating imitators.

Succeeding at this kind of research requires extending rigorous analysis to its prescriptive implications (Gulati, 2007). To use an analogy inspired by Siggelkow's (2007) talking pig, it's not enough to show that a horse is a zebra. You also have to show that the standard approaches to better horse performance lead to worse zebra performance. Managers with zebras should stop trying ever harder to apply the most advanced techniques of horse training to their zebras. The harder you try to train or tame your zebra, the worse the outcome. Even though zebras may initially look like horses, they are actually quite different in spirit. Although a horse may excel in a structured environment, a zebra will suffer and eventually even die. Zebras cannot be trained and tamed in the way of horses. This insight is enough to get attention, but a truly great managerial article will go the final mile and offer unique approaches for managing zebras.

Insights from academic researchers bring to mind several opportunities for managerial articles on industry change, my own area of research (e.g., McGahan, 2004; McGahan & Porter, 2003). The first is to use cooperative game theory (as did McDonald and Ryall [2006]) to show how the players at the boundaries of an industry can fundamentally affect its economic structure. For example, an empirical working paper for academics on this topic by Henkel and Reitzig (2007) demonstrates that "patent sharks" may appropriate the returns of companies with patented intellectual property. The potential exists for a management article that identifies how executives can identify players at the fringe of an industry that pose a threat to their profitability through tactics such as patent sharking.

A second opportunity is to challenge the idea of a "revolving door" for industry entry and quick subsequent exit, which has become conventional wisdom. The metaphor suggests that executives should not overreact to entry because most new firms run out of steam on their own after only a short period in an industry. Yet new research in the field of strategic management shows that new entrants may scale up quickly in some industries (eBay, Google, and YouTube, for example) and constitute major threats to incumbents. A systematic categorization of the truly threatening new entrants—and the particular industries in which they tend to arise—would help managers figure out when to react.

Fundamental Principles Are Changing: Your Dog Doesn't Hunt Any More

If you are talking with a southerner in the United States, and he or she says, "That dog don't hunt," you've just been told off in a friendly way. The phrase means that you're spinning a yarn or that you've talked yourself into something that doesn't ring true. Of course, ironically, domestic dogs do not hunt any more—at least not in the ways that their predecessors did. As a result, it would be true to tell almost anyone that his or her pet dog does not hunt because of a fundamental change in the ways that dogs are integrated into modern society.

Academic researchers demonstrate to managers that dogs don't hunt when they show that some widely accepted business activity, such as corporate R&D, doesn't deliver good performance anymore because of a fundamental change in principles (such as widely available, nonproprietary intellectual property). In general this involves showing how an important business, industry, or context is changing by referring to case examples, empirical evidence, and/or changes in theoretical paradigms.

A leading example is "open innovation," a term Chesborough (2003) defined to describe how old models of corporate research and development were giving way to open approaches in which invention was outsourced to specialist suppliers and rooted in customer insight. Another example is the 1980s' JIT (just-in-time) inventory movement, which showed that classic approaches to inventory management were often inefficient. The implication for managers is that old activities can be abandoned because they no longer create value and that a new way of doing business may deliver better performance.

Succeeding in delivering this kind of insight is difficult, and yet opportunities nonetheless come to mind in current work on industry change. For example, the absorptive capacity model of technology commercialization (extended from Cohen and Levinthal [1990]) has become popular, but there are signs in some work that corporations perform better when they actively and aggressively integrate newly commercialized technologies rather than only absorb them (see, for example, Tripsas and Gavetti [2000]). More research is needed on this topic, but it is possible that corporate divisions that scan their internal and external environments to absorb technologies might perform worse than corporate teams aggressively dedicated to integrating new technologies into core operations.

Widely Accepted Current Practices Are Paradoxical or Problematic: We're Like Lemmings Walking Off a Cliff Together

A third approach is to show how current management practice is problematic or paradoxical because it violates at least some precepts that have been demonstrated by research as theoretically and/or empirically important. Examples include Ghoshal (2005) and Jensen (1989). Ghoshal (2005) argued in particular that agency models encouraged bad executive behavior by suggesting that managers were relieved of responsibility for acting in the best interests of investors, employees, and customers if they did not receive adequate incentives for good behavior. Ghoshal was responding to the corporate accounting scandals of the early 2000s by suggesting that we are all walking off a cliff together if we continue to accept that high executive pay is a normal precursor to ethical management. Jensen (1989) argued that modern corporations were becoming obsolete because of bureaucratic inefficiency.

In general, managerial research of this type has impact because it cites "lemming behavior," or the widespread acceptance of an approach that is problematic but that prevails because it is perceived as less risky than the harder alternative of moving outside the pack. Such behavior occurred in diversified brokerage firms that offered compromised advice to investors in the interests of their investment banking activities. The lemmings in this business fell off the cliff when Eliot Spitzer, then the attorney general of the State of New York, filed suit against them.

Paradoxical management practices related to industry change are prevalent today (see Mahoney & McGahan, 2007). For example, although many executives are currently embracing a "green approach" to conserve energy, few are dealing seriously with the prospect of the depletion of the planet's petroleum reserves over forthcoming generations. The list of affected industries is almost endless. Petroleum and petroleum-derived products are currently essential to the production and distribution of fertilizer (and therefore food), medical devices, pharmaceuticals, hospital equipment, robotics, sanitation systems, water transfer facilities, textiles, reinforced construction materials, transportation equipment, electronic equipment, semiconductors, and telecommunications systems, to name just a few. Innovation on a massive scale will be required to adapt. Insights about how to innovate through the efficient use of technology are essential, but few researchers in strategic management are working on problems in this area.

Theory Can Be Integrated to Explain a Challenging Situation: You've Got a Nail and a Hammer Can Be Assembled

Another approach is to show that a situation that appears unique and unprecedented actually falls into a class of problems that one can address successfully by integrating different theories. Some of the most persuasive work of this type illustrates a situation from several vantage points and shows how an integrative approach yields breakthrough insight. Consider, for example, the Honda (A) and (B) case series (Christiansen, 1983a, 1983b) or Graham Allison's (1971) book on the Cuban missile crisis. In each of these examples, the author analyzes a situation using different theories (e.g., a rational theory versus a "satisficing" or political vantage point) and shows how an integrated perspective explains what is happening better than each separate theory. The integrated approach is accessible but it is not obvious—and, as a result, managers can improve performance by thinking differently about the problems that they face.

Management thinking about industry change would benefit if academic researchers were to bring this approach to a range of institution-building situations. Consider, for example, the roles that public-private partnerships play in fostering the development of competitive industries in resource-limited settings. McCraw (1998) indicated that an effective banking system is essential. The growth of microfinance in resource-limited settings suggests that this approach is the dominant model. Explosive growth in microfinance may well depend on regulation by public institutions to protect both clients and financing institutions. Another example arises regarding international laws that regulate global commerce. With the repeated breakdown of World Trade Organization trade talks, corporations find it difficult to make progress on developing the kinds of trade institutions needed to assure that international quality standards are sufficient to protect consumer welfare (as was evident recently when counterfeit and poisonous cough medicine additives were allegedly transported from southeast China through Barcelona to consumers in 16 countries). Possible solutions in semipublic regulatory institutions have not yet been exposed to academic or management scrutiny.

A Single Issue or Case Is Iconic and Deserves Attention from Both Managers and Academics: You've Got a Medieval Turnip

The best course I took in college was medieval history. The professor, Ralph Lerner, introduced the class on the first day by pounding a turnip on the desk. We would study turnip-eating serfs, not royal succession, because 99 percent of the population were serfs. Over the course of the term, we ate turnip mash, turnip soup, boiled turnips, and turnip florets. When we complained that we were sick of turnips, Lerner asked us to imagine what it was like to be a serf in the middle ages planting, harvesting, and consuming turnips year after year. He was teaching us how some of the major ideas that characterized the Renaissance originated in the Middle Ages.

Some issues, activities, companies, and cases are medieval turnips. They represent something new and fundamental that requires serious attention from both managers and academic researchers. They signal a turning point in the society and the culture of business. Discuss Enron and you are evoking the iconic example of an MBA-run, incentive-based, growth-gobbling, pension-ruining, career-ending, emperor-wears-no-clothes institution run amok. Mention McDonald's and people think of *Fast Food Nation* and overweight children. Talk about Halliburton and you provoke questions about where the $456 billion spent on the Iraq War has gone.

It's impossibly hard to know in advance whether something is iconic. Here's a possibility on the question of industry change: The privatization of prisons. A new "general contracting" industry is emerging to coordinate prison services that had previously been subcontracted. On the one hand, the new industry is not revolutionary because it involves integrating services that had previously been offered in parallel. On the other hand, it signals a fundamental turning point in government-business relationships—with governments providing only the oversight to assure that the services conform to public specification.

WHAT DOES NOT WORK

In preparation for the conference at London Business School in May 2007 to honor Sumantra Ghoshal, I reflected on draft managerial articles by academics I had seen that ultimately were not published, or were published but did not have the impact that the authors envisioned. Many of the papers were academically rigorous—typically they were more rigorously researched than those that were successful ultimately. Almost all had compelling messages. The reasons for their failure of impact reflect a range of circumstances, including managerial apathy and complex implications. Yet the most salient common thread was that the papers did not offer managers integrative solutions to relevant and narrowly defined problems. Some core themes emerged.

First, some of the failing papers indicated that managers were powerless to influence a particular phenomenon. Often, an academic author begins by persuasively emphasizing the importance of an issue: climate change, economic crisis in Russia, or infanticide in China, for example. Then the author suggests that these problems are beyond the scope of management. The punch line is that managers should sensitively avoid inadvertently contributing to the accumulating burden. Articles in this group fail even if they are accurate because they do not demonstrate optimistically that managerial action can be effective (Furnham, 2000).

Second, some of the papers lacked impact because they suggested that academic researchers have long been studying something unimportant to managers. For example, one might try to argue that "the market for corporate control," a central construct in strategy and finance, does not exist, and that managers should not worry about it. Of course, the reason for failure here is that the relevant message is for academic researchers, not for managers.

Third, papers sometimes failed because they argued that old frameworks were complete, comprehensive, and timeless. The message was that new approaches were not needed and that an old way of thinking still stood the test of time. Even if true, this message was, apparently, not persuasive or insightful enough to command management attention (Abrahamson, 1996; Abrahamson & Eisenman, 2001).

Finally, a group of papers argued that one type of academic research on a topic was better than prior or alternative academic research on the same topic. Imagine something of great importance to managers, such as the implementation of the Sarbanes-Oxley Act. Academic research on this question has dealt with topics as diverse as the legislation's impact on the structure of accountancies, on management accounting, and on corporate strategy. Each topic is likely to be of interest to managers with different responsibilities. Papers advocating one type of research over another tend to fail to appeal to a wide audience.

CONCLUDING OBSERVATIONS

Several of the other essays in this section offer extensive recommendations for making strategy research as relevant to managers as medical research is to physicians. The models they offer suggest specialization, case analysis, and theory development in the field. These complementary essays offer ideas about managerial relevance that are worthwhile even for academics in strategic management who do not seek to write for practitioners (e.g., Tushman & O'Reilly, 2007). A central theme is that a relentless focus on the implications of academic research for specific management problems is critical and that researcher contact with managers is an essential ingredient of the process (Markides [2007] offers practical ideas about how to do this).

The specific managerial problems that command your attention as an academic researcher should be important. The strategic issues of our time (think of the end of oil) have not commanded enough of the attention of either academics or managers. There is a clear opportunity to have as significant an impact on management practice as medical researchers have on clinical practice. The competition is light, and the appetite among managers for your ideas is great. Vermeulen (2007) challenges you to make a difference. The time is now.

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Anita McGahan (*amcgahan@rotman.utoronto.ca*) is a professor of strategic management at the Rotman School of the University of Toronto, senior institute associate at the Harvard Institute for Strategy & Competitiveness, and senior economist in the Center for Global Health at the Massachusetts General Hospital. Her research focuses on models of industry evolution and the evolution of competitive advantage. She is currently pursuing a long-standing interest in the inception of new industries with a focus in pharmaceuticals, medical devices, and health delivery. McGahan holds a Ph.D. from Harvard University in business economics.