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DRIVING SUCCESS: HOW YOU INNOVATE DETERMINES WHAT YOU INNOVATE

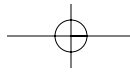
Innovation Is the Power to Redefine the Industry

For any organization, innovation represents not only the opportunity to grow and survive but also the opportunity to significantly influence the direction of the industry. Apple Computers took the industry by surprise when it launched iTunes and iPod, not so much because these were innovations that nobody had ever thought of before in the PC arena. Instead, it was the strategy of combining technology change and business model change into a one-two innovation punch. And the iTunes/iPod combination is only starting to generate new concepts; one of the latest is an iPod special edition with U2 (the famous rock band), which opens up rich partnership opportunities with content providers. Apple has put its mark again on the direction of the PC industry—a mark that will be tough to erase.

As innovation leaders like Apple, Toyota, Dell, Nucor Steel, Sony, and others have shown, making important changes to key parts of the dominant business model or the essential technology can redirect the competitive vectors of an entire industry. Innovation provides the opportunity for a company to put its mark on the evolution of business. By setting the rules of the game in their industries, these companies have taken a leadership position and play the game that favors them the most.

Innovation is not only a weapon in competitive markets; it has proven itself as an important source to redefine philanthropy and government under the umbrella of social innovation and social entrepreneurship. The idea of micro-credits, with Grameen Bank as the best-known example of these, has dramatically changed the standard of living of thousands of people who were trapped in a vicious circle where high-interest loans captured all the value from their work and kept them in poverty. Micro-credits are very small loans, as small as \$30–\$40, that offer individuals the chance to start or grow a business. Used to foster economic improvement for individuals, families, and regions, they are commonly made available in emerging countries and struggling economies. Micro-credit entities improve the risk profile of these loans through careful selection, social control, and diversification. Lower risk translates into better interest rates and the possibility for these people to significantly increase their standard of living.

While achieving a leadership position is not easy, maintaining it has consistently proven to be much more challenging. The ability of innovation to influence the direction of an industry does not in itself guarantee success for the innovator. Unleashing an innovation and expecting the market to reward the company with sustained growth and success is a common mistake.¹ For example, Boeing launched the highly successful 777, and established the norm for commercial airplanes in the 21st century. However, Boeing has not been able to maintain dominance of the industry, and Airbus has challenged its



leadership, surpassing it in sales in 2004. All companies have seen their market advantages derived from breakthrough innovations whittled away and eventually reversed by competitors. A blockbuster innovation is not a guarantee of success, just an opportunity. It must be followed up with a successive stream of innovations, from incremental to radical. Leading companies know this and have a developed portfolio of innovations from which they can draw to sustain growth.

In the long run, the only reliable security for any company is the ability to innovate better and longer than competitors. Nokia's management has frequently said that its real business isn't phones; it's innovation. In Nokia's case, innovation is a capability fused to the core of the organization; the company calls its culture of continuous innovation "renewal."² The ability to innovate has taken Nokia from the equivalent of an approximately \$6 billion company in 1994 to an approximately \$36 billion company in 2003. But even for Nokia, innovation has not been an easy path; its financial performance faltered since early 2004, and it has been challenged as the innovation leader.

Superior innovation provides a company the opportunities to grow faster, better, and smarter than their competitors—and ultimately to influence the direction of their industry. For the CEO, this is growth on the company's own terms. The following case study shows how the role of innovation at Coca-Cola provides insight into the importance and challenges of harnessing innovation.^{3,4}

Case Study: Long-Term Innovation

Company: Coca-Cola

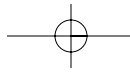
In the 1990s, Coca-Cola appeared unstoppable with earnings growth of 15–20 percent per year. However, the Coke juggernaut sputtered, and from 1998–2000, the company turned in three straight years of falling profits. It was the worst downturn in recent memory.

There were a myriad of factors contributing to the decline, including soft demand in some regional markets and a strong dollar weakening overseas markets. But Coca-Cola's major problem was that global demand for Coke was sagging. One of the first signals was in the 1980s when Snapple took the U.S. by storm. Coke's sales volume fell 2 percent in the U.S. (the most mature market). Elsewhere in the world, growth slowed. The markets were changing with local brands springing up to fit local tastes.

The beverage industry was changing, with greater value placed on novelty. It used to be that all a beverage had to do was to refresh. New demands emerged: *keep me growing* from the kids; *keep me going* from the young adults; and *keep me interested* from the adults. To survive and grow required the ability to systematically innovate and deliver new products. For Coca-Cola, this meant moving away from a single core product and becoming a total beverage company. Coca-Cola realized that it needed new products to match new trends in beverage tastes.

This was a fundamental change in business strategy because historically its strength was having one hugely successful core product. Competitors had chipped away at that strength by introducing the new beverages. Most notably, Pepsi had beaten Coca-Cola to market with nearly every big product innovation in recent years, from diet cola in the 1980s to cola with a lemon twist in 2001 (with Cherry Coke and Vanilla Coke being the exceptions in Coca-Cola's favor).

Coca-Cola responded with a shift away from its traditional Atlanta-based operating mentality. The company's strategy under Doug Daft, CEO from 1999–2004, had been to catch up quickly by employing what we label as a Play-to-Win innovation strategy—a strategy that relies heavily on a combination of incremental and breakthrough innovation. The company began to employ innovation on both its technology and business models. Coca-Cola undertook the difficult task of creating an innovative culture across the company. To support that, the company created new organizations (referred to as *innovation centers*) and new innovation processes—



no easy task for a company that, historically, had grown through narrow focus and standardization. Now the company was operating in a decentralized environment that had been unthinkable in previous years. The new mandate changed to “Think Local, Act Local.” Coke Japan had been creating products and campaigns at a blinding speed, calling on Atlanta only for final approval and funding. Likewise, operations in Mexico had developed and launched a new milk drink and managed it by themselves.

Coke has identified 32 possible beverage occasions each day. In addition, several new types of beverage types emerged: sports, water, teas, health, and the mom and kids categories. Coca-Cola’s portfolio of brands has grown to include Dasani bottled waters in the U.S. (and the U.K. although with some PR problems), Qoo juice drinks in Asia, and a guarana-flavored drink in Brazil. These new products are the direct result of a shift in the basis of competition in the industry.

Coke continues to play catch-up in the market, and Daft stepped down after just five years. Performance is mixed. What will happen to Coke? Will the new approach to innovation it created be sufficient to pull itself out of its problems and into the lead? Stay tuned; a lot depends on how well Coke manages and sustains innovation.

The Innovation Imperative: Driving Long-Term Growth in Top and Bottom Lines

According to Peter Drucker, “Innovation is the effort to create purposeful focused change in an enterprise’s economic or social potential.”⁵ That statement very accurately positions innovation as the agent for change and a crucial tool for every CEO. True enough, but it does not capture the fundamental importance of innovation to competitive survival.

More recently, James M. Kilts, then chairman and CEO of The Gillette Company (currently co-chairman of P&G after the acquisition

of Gillette), summed up innovation this way: “We created a simple vision two years ago: Build total brand value by innovating to deliver consumer value and customer leadership faster, better, and more completely than our competition.”

He also observed: “You need to encourage risk-taking. One of the themes in our company is to remember that the opposite of success is not failure but inertia.”⁶ That puts innovation in the right context; innovation is critical to growth in a competitive environment. Without innovation, you stall, your competitors take over, and you die.

Back in 1979, CompuServe began to offer online services and developed a myriad of applications including email, online banking, and online shopping. By 1990, the market amounted to about 1 million subscribers, and CompuServe was the undisputed leader. However, by the end of the decade, AOL had emerged as the dominant player in the market, buying CompuServe in 1998. CompuServe led with innovation, paused and then faltered, and eventually succumbed to a more innovative company. CompuServe is not alone in the list of dethroned leaders. Similar stories exist across every industry including airlines, investment banking, computers, and personal digital assistants (PDAs).

Innovation is the key element in providing aggressive top-line growth, and for increasing bottom-line results. Companies cannot grow through cost reduction and reengineering alone. Most of the past attempts at diversification have been largely unsuccessful in creating the required top-line growth.⁷ Companies turn to innovation to produce growth when these conventional approaches fall short. For example, Figure 1.1 depicts the challenge of top-line revenue growth. The combined forces of market expansion, anticipated mergers and acquisitions, and the expected increased sales from products in the commercialization pipeline failed to produce the required revenue growth to meet targets.

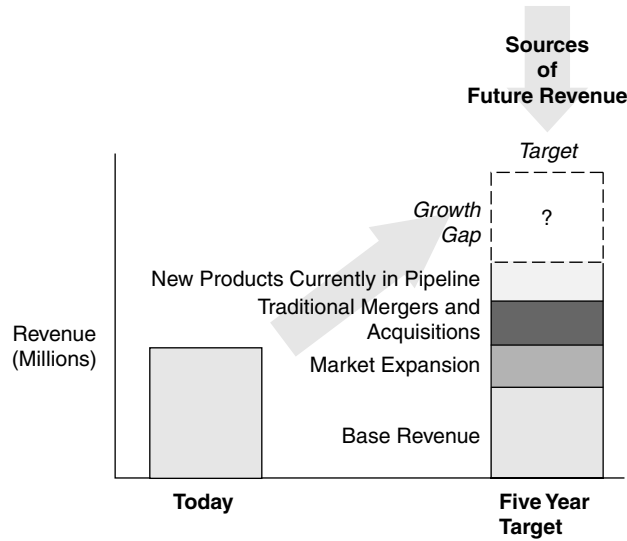
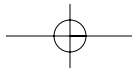


FIGURE 1.1 INNOVATION PRODUCES VALUE VIA TOP-LINE GROWTH.⁸

This real-life example is taken from a leading electronics company. The company could not achieve sufficient revenue growth through expansion of current product sales and mergers and acquisitions to satisfy its growth needs. Closing the growth gap required innovation.

Exactly what type of growth is created by innovation depends on the needs of the company and its competencies. Innovation can result in revenue growth, a stronger bottom line, improved customer relationships, more motivated employees, enhanced performance of partnerships, and increased competitive advantage.

How to Make Innovation Work: *How You Innovate Determines What You Innovate*

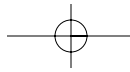
Right now, your company is perfectly designed to yield the innovation that it is currently producing. This is not a trick statement. Because every company has a unique combination of innovation strategy, organization, processes, culture, metrics and rewards, each company's

innovation products will be different. What Apple develops would not come out of Dell or IBM. Likewise, what Toyota produces may be copied by General Motors or Ford, but they could not come up with Toyota's basic innovations (the specific type of lean manufacturing that swept the auto industry or the current hybrid automobile technologies). Each company creates its own type of innovation by adding its own special touches (for example, culture, specific knowledge, unique rewards)—although the basic ingredients for innovation are all the same. Less innovative firms are that way because they chose it—either consciously or by letting inertia decide for them. Changing the innovation results requires proactive management.

Research Bites: Transitioning from the First Breakthrough Innovation to an Innovative Company

A company in our field research illustrates the transition from a company built around a breakthrough innovation to a company that consistently delivers innovation. This company with more than 15,000 employees (1,000 of them in R&D) grew out of a breakthrough innovation in packaging. As the growth associated with this initial and highly successful innovation began to top off, the company started to think carefully about how to use innovation for further growth. The problem was that the approach which provided the initial innovation—unguided funding of lots of exploratory concepts—currently was not generating a portfolio of innovations that could fuel sufficient growth.

The company thus redesigned its approach to innovation. While preserving the entrepreneurial, go-for-the-breakthrough culture, the company created structures and processes to better support innovation and improve its yield. It created a chief technology officer (CTO) in charge of innovation; it installed clear metrics to better track and manage; it created portfolio management tools to balance innovation efforts; it implemented stage-gate processes to govern investments; and it established platforms where marketing and R&D work collaboratively in creating innovations. The company successfully implemented an approach that allowed the company to walk the fine line between disciplined flexibility and bureaucracy.



A fundamental tenet of innovation of which many appear to have lost sight is “*How* you innovate determines *what* you innovate.” In other words, the results of innovation are not a lottery—it is not a matter of luck. Alternatively, innovation is not a commodity system that you plug into to get what you need—such as the electricity grid.

The elements of innovation—leadership, strategy, processes, resources, performance metrics, measurement, and incentive rewards—and how they are arranged—organizational structure and culture—have a huge effect on the quantity and quality of innovation that an organization achieves. The implication is that it is nonsensical to ask for more or better innovation without first looking at *how* the company innovates.

What, then, are the key drivers for innovation success? Why do some companies prosper while others languish with decreasing margins, few successful new products, and eroding market share?

The Rules of Innovation

A key to successful innovation, and something that requires the attention of the CEO, is a periodic health check to determine exactly what needs attention. Continually tinkering with all parts of innovation is unlikely to meet with success. To achieve results with limited time and resources requires the ability to focus on the parts of the innovation effort that need the most attention.

What is surprising is how few companies have effective diagnostics for their overall innovation activities. Without solid innovation diagnostics, it is hard to know where to start. Innovation processes are intertwined and without discerning diagnostics, it is hard to separate the symptoms of your problems from their causes. In addition, without periodic diagnostics, a sense of complacency builds because there is no focus on maintaining the right mix of innovation.

Table 1.1 presents the responses of two very different companies to several basic questions about innovation and illustrates the range of perspectives that we have seen. Company B suffers from not having periodic diagnostics that highlight their shortcomings. It does not even believe that innovation can be measured. However, it continues forward with its innovation program believing that it is acting correctly.

Table 1.1 Different Perspectives on How to Execute Successful Innovation

| | Company A | Company B |
|--|--|---|
| What efforts is top management putting in place to support innovation? | Top management praises and follows carefully most innovation efforts. | Top management talks about innovation but punishes failure. |
| Does everybody devote part of his or her daily attention to having a better business model? | Innovation may happen anywhere within the company. | Quarterly financial targets are the main focus. |
| Is it clear to everybody how the company intends to innovate? | The company has a clear focus, for instance “to enhance human-machine interfaces.” | The company wants to grow through innovation. |
| Does creativity or bureaucracy crowd out innovation? | People have the freedom and the support to research their ideas. | Every process has operating procedures that cannot be changed. |
| What are the reasons, if any, why innovation is not as effective as you would want it to be? | We fail to capitalize on all the ideas that are generated. | There is a lack of talent and effort from employees. |
| How does your company leverage its internal talent and its access to external talent? | Through interest groups and alliances with clear objectives. | Innovation is focused on the R&D department and its collaborations. |
| How do performance measures and rewards affect innovation? | Measures are intended to help managing projects. | We don’t believe that innovation can be measured. |

A list of all of the advice on innovation that has been written would stretch from the earth to the moon and back again. However, long lists are not much help for the business team with the responsibility for making things happen. Our research keeps bringing us back to a short list of the most important aspects of innovation that should therefore receive senior management attention. In companies that



innovation produces best in class results, key success is tied to how well the CEO and the senior management team do the following (these are known as the *Seven Innovation Rules*):

1. **Exert strong leadership on the innovation strategy and portfolio decisions.** Clear direction from the top of the organization permeates throughout the organization to motivate, support, and reward the activities that encourage innovation as well as the innovations themselves.
2. **Integrate innovation into the company's basic business mentality.** Innovation is not a rabbit you pull from a hat on special occasions; it must be an integral part of the way a company operates every day.
3. **Align the amount and type of innovation to the company's business.** Innovation *may* or *may not* be the key to success for your overall business strategy; you have to determine the types and amounts of innovation needed to support the business strategy—and more is not necessarily better.
4. **Manage the natural tension between creativity and value capture.** A company needs strength in both. Creativity without the ability to translate it into profits (for example, execution and value capture) can be fun but it is unsustainable; profits without creativity is rewarding but only works in the short-term.
5. **Neutralize organizational antibodies.** Innovation necessitates change, and change stimulates explicit routines and cultural norms that act to block or negate change.
6. **Recognize that the basic unit (or fundamental building block) of innovation is a *network* that includes people and knowledge both inside and outside the organization.** A successful organization excels at fusing its internal resources with selected portions of the vast resources of the world's capitalist economy.

7. Create the right metrics and rewards for innovation.

People react to positive and negative stimuli, and your company's innovation is no exception. You will never achieve the level of innovation that you need if people do not have the proper rewards.

These innovation rules are interdependent; mastering one or two of them is a step in the right direction but won't take the organization far enough.

In the following sections, we describe the seven rules in more detail.

1. Exert Strong Leadership on Innovation Direction and Decisions

Strong leadership from senior management is essential to achieving success in innovation. Steve Jobs of Apple, Bill Gates of Microsoft, A.G. Lafley of Procter & Gamble (P&G), and Jorma Ollila of Nokia are all examples of CEOs who drive their management teams and their companies to the highest levels of innovation performance.

In a recent *Financial Times* survey, the most important factors in selecting new investments were the strength of the management team and the demonstrated strength of the business model. Technology was a close third.⁹ Other data showed the following:

- 95 percent of the survey's respondents said they were looking for management strength as the most important factor in making new investments.
- 72 percent said that the prospective company should have market dominance in its industry sector (for example, demonstrated strength of business model).
- 68 percent said they were looking for technology leadership in a new portfolio company.

The CEO and senior management team must make decisions on the innovation strategy, level of risk, amount of investment, and the



balance of the innovation portfolio. These decisions must be communicated throughout the organization to enable managers and members of the innovation network to execute.

It is not by chance that leadership is our first innovation rule. The most important aspect of business is people, and business is mainly about managing people. It does not matter who you ask, whether it be employees at startups or at very large firms—they all will point toward their managers as setting the innovation pace. As a startup manager in our research put it: “Most importantly, I’d say success is really a people issue; it is finding the people who can understand the high level (strategy) and the need to execute on it, and then be able to evolve as the company does.”

Innovation management depends on the leadership at the top. The team at the top must want it to happen and trust its people to make it happen. It cannot be an espoused theory where top managers preach it but don’t believe it. Innovation has to be a theory in action; top managers must be committed and follow their commitment with actions.¹⁰ Then the other managers throughout the company will be motivated to follow suit.

What do we mean by leadership? It is not some grand concept of leadership—the change agent that achieves the improbable objective. Rather, we mean day-to-day leadership, a type of leadership that happens through commitment, example, and solid decisions rather than grand statements.¹¹

Research Bites: The Relevance of Top Management Support

In two surveys designed to better understand the innovation process, we asked respondents to evaluate the relevance of various innovation competencies. The survey was administered in 1997 and then again in 2002 to senior technology officers in the United States, Asia, and Europe. Top management support ranked as the most important competency in both years with increasing importance within the five years.

Create a Portfolio of Technology and Business Model Innovation

Typically, when people think about innovation, they think of technological innovation. However, business model innovation is just as important and just as powerful in driving business success and revolutionizing industries. Business models describe how the company creates, sells, and delivers value to customers, and it includes in the description the supply chain, targeted customer segments, and the customers’ perception of the delivered value.

A classic example of a business model change is Dell Computer, a company that radically changed the business model of the customer interface in retail personal computer sales. Dell focused its efforts on changing the business model for PCs. The company sold directly to consumers, providing new value proposition (such as customized PCs) and significantly changing the supply chain and cost structure. This was an innovation of major proportions, one that continues to influence the direction of the PC industry.

Knowing how to change business models and technology together and individually is the mark of a successful innovator. The *Innovation Matrix* shown in Figure 1.2 illustrates the interplay between technology and business model innovation. In Chapter 2, “Mapping Innovation: What Is Innovation and How Do You Leverage It?” we describe the Innovation Matrix in detail.

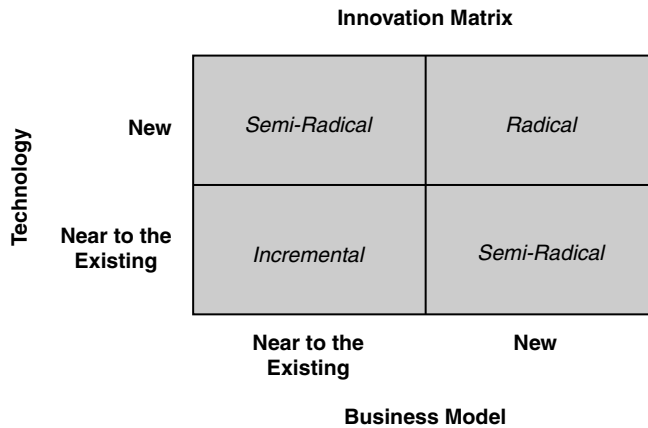


FIGURE 1.2 THE INNOVATION MATRIX.



The Innovation Matrix highlights the fact that not all innovations are created equal. Three types of innovation exist: incremental, semi-radical, and radical. Achieving radical or semi-radical innovation requires a different mix of business model and technology change than incremental innovation. As we will discuss later, creating a portfolio of incremental, semi-radical, and radical innovation is essential to sustained innovation and growth. As with a financial investment portfolio, getting the balance out of whack decreases the return on investment and increases vulnerability. The senior management team bears the responsibility for creating a balanced portfolio of incremental, semi-radical, and radical innovations and for creating the appropriate business model and technological options.

2. Integrate Innovation into the Business Mentality

To thrive, innovation must be an integral part of the business mentality. It is not a “nice to have” element. It is essential to the continuation of the organization. 3M has said that innovation equals survival, and made it part of their culture. Recall how Gillette CEO Kilts characterized it: “Build total brand value by innovating . . . faster, better, and more completely than our competition.” He has placed innovation at the heart of Gillette’s business and competitive mentality. The recent merger of Gillette and P&G—two companies that appear committed to win through innovation—promises to be an interesting marriage.

Innovation encompasses two established activities. The first is traditionally thought of as technological: research and development (R&D), or new product development. The second is strategic: defining the business model. As we will describe later, focusing on only one of these will not produce successful, sustained innovation. Success depends on the integration of business model and technology change into a seamless process.

A seamless process does not imply that innovation should be contained within one organizational unit—quite the opposite. By its very

nature, innovation requires resources, competencies, and experience that reside in different parts of the organization and in outside organizations. It also requires coordination and synchronized efforts across these departments to move an idea from the abstract world to a tangible product. Establishing solid internal and external collaboration is a requirement for innovation. Microsoft continues to work this critical issue as it pushes to make .NET a commercial reality. Microsoft has always relied heavily on partnerships to assist in developing products, and the new, aggressive .NET initiative will require higher levels of collaboration.

While external collaboration is essential for success, a company cannot outsource innovation completely. Some fundamental product development activities can be outsourced, as well as activities in idea generation and commercialization. But outsourcing innovation completely means relinquishing control of the technology a company uses (product, service, process, and enabling) as well as the business models that it uses to compete (such as the supply chain). Some of these elements are crucial to the survival and existence of the company. Knowing which are crucial and which can be managed with the assistance of a partner is an important part of structuring innovation within any company.

3. Match Innovation to Company Strategy

A company's business strategy is focused on winning. And innovation is a fundamental element of long-term success. However, in any given quarter or year, innovation is not necessarily a key source of competitive advantage. The importance of innovation rises and falls with time depending on the confluence of several factors including the timing of the last innovation, the nature of the competition, and the overall business strategy.

The amount and type of innovation must match the company strategy. Deciding which innovation strategy best fits the external



competitive and market situation and the company's internal condition is the responsibility of the senior management team and ultimately rests upon the CEO. The experience of Durk Jager, former CEO at P&G, highlights how things can go wrong if the CEO chooses the wrong innovation strategy. It is a fundamental management decision for which top management must take responsibility—as Jager learned.¹²

There must be clarity and alignment in the organization around the selected innovation strategy; it has to fit the business situation and it has to be clear (meaning, it has to be measured and recognized with proper rewards linked to performance) throughout the organization. All too often, this fundamental first step is overlooked, and companies find themselves with poorer-than-expected results. For example, in the late 1990s, BP Exploration and Production looked long and hard at its success rate with innovation and discovered that significant effort was being placed in the wrong areas. The company was spending in strategic areas that would not and could not provide an adequate return on investment. The team shifted its emphasis to ownership and application of specific innovation platforms that would support the business strategy.

Keep in mind that more innovation is not necessarily better. Some proponents of innovation have been carried away in their apparent zeal regarding innovation; they have recommended that all businesses need significant, continual doses of innovation, especially radical, game-changing innovation. This is simply not true. Every organization that intends to survive beyond the next two product life cycles needs healthy infusions of innovation and must invest to get them. This does not mean that an organization needs constant blockbuster or breakthrough innovations. It is hard to imagine an organization that could effectively harness a constant supply of breakthrough radical innovations, each of which would cause significant change in its business and technology base. That level of change may bedevil the competition, but it would also break the back of the innovating

organization, considering the huge costs of developing such a flow of innovations coupled with the huge tensions and destabilizations created in the organization by the constant, radical change.

Therefore, innovation—like most good things—is best in the right proportions. With a corollary, the right proportions are different for different companies. Thus, there is no turnkey solution, not one-size-fits-all program. Each company needs to decide how much innovation it can handle at a point in time, how much more it needs in the future, and the dynamics of how to get from the current set of possibilities to the aspired position.¹³

4. Manage the Natural Tension Between Creativity and Value Capture

Innovation is different from many other business management concerns in one important way: It includes management of large amounts of creativity. Specifically, innovation requires processes, structures, and resources to manage significant levels of creativity (developing new concepts and ways of doing things) while executing (transforming creative concepts into commercial realities).

From about 2000 up until now, Apple seems to have found the right formula for managing creativity and value capture. Its spate of new products and services—OS X, iPod, iTunes, the new iMac—demonstrated that it can come up with important new ideas and bring them to the market profitably. However, in the 1980s, Apple did not fare as well. Its innovation and new product activities in Cupertino were well financed, and many new ideas were advanced. Despite spending hundreds of millions (or quite possibly billions) of dollars, Apple came up with precious little in the way of successful commercialization during that period. The Newton (originally an operating system designed by Mac to run on its MessagePad line of PDAs) is the best remembered innovation of that era, a classic example of creative



zeal crowding out commercial realities. The Newton failed not because the concept of PDAs was wrong but because the way it was executed was too little, too soon. Later PDA introductions provided much more value to the consumer and have been highly successful.

Traditional thinking is littered with misconceptions about how to manage creativity and innovation. The following example presents an alternate mental model for managing innovation.

Business Manager: Artist or Movie Director?

Many people cannot imagine how to manage the creative components of the innovation process. They wrongly assume that structure and process are the natural foes of creativity. They feel that imposing any structure on creative people will ruin the results. However, structure can, in fact, enhance creativity if built and used in the right way.

People who believe creativity cannot be managed often have a mental model of creativity requiring artistic talent—such as possessed by a painter like Rembrandt. Perhaps they envision the business manager—equipped with standard project management tools, standing at the artist’s side providing advice, suggestions, and imposing a process, as he attempts to paint a masterpiece: First, don’t get too caught up in the details in the beginning, just use broad brush strokes to capture the basics. Once we agree on that, you can go back and add the detail. And don’t use too much of that blue you have there because the marketing folk called and said that it clashes with the intended site where they want to hang this painting. Finally, no matter what, I need a first iteration done by mid-month, and your next chunk of budget is contingent on hitting that deadline and giving me results that I like.

Clearly this intrusive approach would result in a terrible painting or, more likely, an artist who stomps out the door and refuses to paint. Trying to manage the creative aspects of innovation using the “painter



in front of the canvas” mental model is unlikely to meet with success. Managing the creative process in innovation is better captured by the comparison to the balancing act of the movie director.

A movie director must manage the individual needs and temperaments of many different people from actors, camera operators, and stylists, to the movie’s financial backers and the senior management of the studio. Also, the director has to anticipate the desires of the targeted market, keeping the process focused on the important factors and creating a differentiated product. The director needs to know when to stick to the script and demand perfection, and when to improvise, throwing out the script in search of something better. The director has a schedule and budget that must be met because his/her performance is being assessed, and funds are allocated on the basis of results achieved against the budget and schedule goals. However, the director has to know when to stop, suspend the plan, and spend the extra time to get a particular aspect right—even when it was not budgeted or scheduled. Then he or she has to make up the lost time and budget elsewhere. Directors face innumerable logistical and technological issues. The director needs to balance all of these—movie stars, budgets, scripts, stakeholders, schedules, and technology—staying deeply involved in all aspects and producing a blockbuster movie. The movie director’s role is an apt metaphor for the job of an innovation manager.

Making Innovation Work describes how to develop an organization that combines freedom and discipline, where both creating and commercializing (value capture) innovative ideas happen at high, sustained levels. To balance and drive both these processes simultaneously is a considerable challenge and requires management of the inherent tensions between the creativity and value capture (in other words, commercialization). Many companies get one component working only to realize that their success in that area is frustrating their attempts in the other. Without management intervention—for example, providing a clear innovation strategy, well-designed



processes and strong leadership—creativity crowds out commercialization, or vice versa. These two elements are the necessary ingredients for innovation but they do not coexist easily.

“We treat innovation as if it were magical, not subject to guidance or nurturing, much less planning. If we study history, however, we know that’s simply untrue. There are times, places, and conditions under which innovation flourishes.”

—Samuel J. Palmisano, chairman, president and CEO of IBM¹⁴

The inclusion of creativity into the innovation equation has kept many managers baffled and perplexed. How can you manage creativity? Won’t you stifle creativity if you apply management processes? There is nothing magical about creativity. The creative aspects of innovation can be managed, measured, and directed, as shown by the creativity and innovation practices of many leading companies. The real challenge is managing creativity and value creation side-by-side without compromising either one.

There is a natural tension between being creative and delivering value from being creative. Too much emphasis on delivering value through execution can stifle the creative processes, and vice versa. Unstructured creative processes can displace effective value management, yielding a factory of great ideas but insufficient commercial successes. Innovation does not mean ignoring business imperatives, but it does mean you have to be aware of the processes within your organization that kill creativity.¹⁵ To achieve this, managers need to be aware of which managerial practices act as a stimulus to creativity and which practices inhibit it. Commercialization processes also need to be managed to produce high-quality results fast—turning the best creative concepts into marketable products and services.

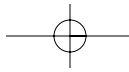
Case Study: When Creativity Displaces Commercialization

Company: Xerox PARC

A company can focus too much energy and resources on creativity. Xerox PARC (Palo Alto Research Center) is a good example of this phenomenon. In the 1970s and 80s, Xerox was a hotbed of creativity. Inside PARC, there was a very high energy level along with some brilliant minds collaborating on all kinds of groundbreaking innovations. Xerox PARC's innovation efforts produced literally thousands of ideas and hundreds of prototypes across a very broad range of computers and information services. However, something was out of balance. Although creativity flourished, PARC did not seem able to capitalize on it. Many ideas languished and never made it to commercialization. Others were developed, but their commercialization was not successful. Overall their creativity flourished but it did not produce commensurate commercial success. What happened?

It appears that Xerox paid undue attention to creativity and effectively reduced its commercialization capabilities (in other words, capturing value from the innovations). The company appeared to be so engaged with its creativity that it lost sight of the goal. With creativity crowding out concern for commercialization, Xerox found itself unable to realize the full potential value from many of its investments. Of course, Apple CEO Steve Jobs licensed a small part of what he saw when he toured PARC and turned it into a major force in the world of personal computers. And subsequently, Xerox has worked hard to restore the balance between creativity and value capture and get innovation back on track.

If the commercialization or the creative processes or mindset dominate, then the company is stuck with very poor innovation. While many companies have been frustrated in operating side-by-side creativity and commercialization, this book provides examples of how it can be done effectively.



5. Neutralize Organizational Antibodies

To achieve innovation success, a company must overcome the organizational “antibodies” that inevitably come out to attack and defeat innovations. Typically, the more radical the innovation and the more it challenges the status quo, the more and stronger are the antibodies. Also, the greater the past successes of a company, the greater are the organizational antibodies. When people have experienced success for a long time, there is a tendency to become complacent and resist change. In order to innovate, senior management must create a culture that has the ability and the courage to change, explore, and innovate while at the same time has the ability to be stable enough to deliver on its innovations.

Part of an innovation-friendly culture is recognizing that those things that brought success in the past will not necessarily do so in the future; core capabilities have the property of becoming core liabilities if they do not adapt and change. This requires a culture that is open to questioning assumptions and to debating alternatives to the current approach to business. Managers must also understand that only by taking risks (preferably small risks where the cost of failure is low), closely observing results, learning from them, and trying again, can innovation occur. HP used to foster risk-taking using many methods, including wakes for failed projects. At these wakes, the team mourned the failure, praised the effort, recognized the learning that came with the effort, and focused on the living—the current and next projects that needed attention. Like a real wake, the message was, “This is life, and it is the way things work. You have to keep going forward.”

A culture that fosters innovation embraces communication not only within the members of the organization, but also with external constituencies. Customers have proven to be a valuable source of insight,¹⁶ but so have suppliers, universities, competitors, or companies in other industries. The not invented here (NIH) syndrome—where a company routinely rejects external ideas because

they were not created inside the company—is a sign of an arrogant culture, and where there is arrogance, strong organizational antibodies exist.

In addition, fostering a culture of risk-taking and learning requires careful attention to metrics and rewards.

6. Cultivate an Innovation Network Beyond the Organization

The primary unit of innovation is not the individual; a person is not the basic building block. Rather, it is the network that extends inside (R&D, marketing, manufacturing) and outside (including customers, suppliers, partners, and others). Innovation requires developing and maintaining this network as an open and collaborative force—no easy task considering the complexities of relationships, differing motivations, and differing objectives. Managing effective partnerships within the company and with customers, suppliers, consultants, and everyone who can help you be innovative comprise a core competency of innovation.

Many examples exist of companies that use this to their advantage. For example, 3M has always maintained a robust network of contacts in a wide range of technological areas. They regularly contact the network to get new ideas and build teams for new initiatives.

Networks are important, but without a blueprint of what kind of network is needed, an organization may end up with a set of high-maintenance, low-value networks. The concept of *innovation platforms*—successfully used in various companies—provides the required framework for the network. Integrating innovation into the business and establishing networks inside and outside of the company requires innovation platforms. The platforms focus on an area of competition (such as Nokia's Mobile Office concept) and address the range of potential incremental and breakthrough innovations. The



innovation platforms cut through the normal organizational boundaries. They include networks of people inside and outside the company that have pertinent knowledge on the platform area—including customer insight, supply chain knowledge, and technical expertise. As we describe in Chapter 4, “Organizing for Innovation: How to Structure a Company for Innovation,” leading companies such as Coca-Cola, Canon, DuPont, and Johnson & Johnson’s have used innovation platforms to harness the right resources inside and outside of their company, make innovation an integral part of their business, and do not disrupt the overall organization.

Some companies choose to isolate innovation efforts from the organization to avoid its antibodies, through stand-alone departments or incubators. These approaches can be successful but only if they establish and maintain a rich network with the critical resources in the company and with outside partners. However, these stand-alone or incubator innovation initiatives often fail because, in an attempt to isolate the innovators from organizational antibodies, they sever critical links with key resources and ideas.

7. Create the Right Metrics and Rewards for Innovation

Corporations establish rewards to drive performance. Often these rewards focus on meeting budgets and avoiding risk. Rewards of this type cause managers to invest in safe products where there is little chance of a big loss but also little chance of a big profit; these rewards, though, totally block whatever motivation there may exist to explore riskier paths. These companies reward the speed at which low risk products are created and marketed, even if they are hoping for radical new ideas. The outcome is little appetite for risk and an overdose of incremental ideas. Interestingly, managers get frustrated with the outcome, blind to the behavior that the organization is explicitly or implicitly rewarding. A badly designed measurement or reward system will mute the rest of the rules, even if optimally designed.



The question then becomes: What should your company measure and what type of rewards would best motivate employees to get the innovation results you need? Before we answer these questions (see Chapters 6, “Illuminating the Pathway: How to Measure Innovation,” and 7, “Rewarding Innovation: How to Design Incentives to Support Innovation,” for detailed coverage), let us ask two more: What are most companies measuring now? And what are the results?

In some companies, the measurements are a big part of the problem. Generally, too few of the measurements used are linked to innovation strategy. Further, many companies we investigated are using metrics that are actually counterproductive. A new study has identified that U.S. firms view earnings per share (EPS) as the key metric.¹⁷ The study identifies managers’ willingness to forgo investments that would produce a positive net present value if it would interfere with meeting a company’s quarterly EPS targets. In essence, managers are willing to burn economic value to meet earnings goals. For these types of companies, it is clear what metric is driving behavior—and it is not innovation-related.

One company we researched mentioned to us that it uses “Number of Products Launched” as a metric to evaluate and reward innovativeness. What behavior would you expect this metric to motivate? Product development managers at the company told us that to meet their targets and get their rewards, they focused on achieving many small product improvements. They said that more radical innovation is difficult and takes a long time. Rather than “gamble” on achieving a more radical innovation—that is, spending the considerable time and money required for semi-radical and radical innovation research and development—they focused on the less risky, shorter-term gains from incremental innovation. The product development managers’ approach is understandable and justifiable, from an individual employee’s point of view. In the three or more years it may take to achieve a truly radical innovation, they would have to forfeit their reward and resist considerable organizational pressure due to their



perceived “non performance.” Then, if they achieved a breakthrough innovation, they would be rewarded exactly the same as if they had produced an incremental improvement to an existing product, even though a radical innovation would return value to the organization magnitudes greater than an incremental innovation.

Organizational structures are often a barrier to innovation. R&D teams can develop powerful ideas, but the business units may not want to sell the product because they cannot see how it fits within their core product mix or their capabilities. Therefore, the R&D department cannot get access to the funding to develop its best breakthrough ideas to the point that the potential commercial return is clear. In other companies, product ideas are generated in the marketing departments of the business units. The department then contracts with the new product development and R&D groups to move the idea from concept to commercial reality. Within this structure, there is no reward for developing breakthrough innovations in the R&D department because employees are measured solely on how well they perform in response to each contract. Also, there is unlikely to be money available for scanning or exploring new possible radical innovations.

The clear conclusion is that organizations need systems in place that provide the proper measurement, motivation, incentives, and rewards to foster innovation that is aligned with the innovation strategy. Organizations also need to create an environment where taking risks on breakthrough innovations is recognized as valuable to the company. This recognition will help modify a unilateral short-term focus on results, to a more balanced view that encompasses a long-term perspective; in order to achieve truly valuable breakthroughs in the long term, it is necessary to accept (and learn from) failures in the short term. Such a perspective does not imply providing total freedom to product development managers. Rather, what is necessary is a carefully designed system that encourages innovation, and a structured process to guide the development of ideas.



Leadership was our first innovation rule because it is where a company needs to start. Metrics and Rewards is our seventh and last innovation rule because it closes the circle, and creates the motivational and behavioral links to all of the other innovation rules. We will discuss these further in the following chapters.

Summary: The Innovation Company

In today's economies, core competencies have short life cycles. Organizations—whether pursuing profits or investing in non-profit objectives—cannot expect to survive without innovation. Without innovation, their fate is determined; the only question is whether the end will happen suddenly because a competitor comes up with a radical innovation or if it will happen as they slowly fall behind competitors that are constantly pushing the envelope. By embracing innovation, companies can redefine their industries, create new ones, and achieve a leadership position that dictates the rules of the game in their favor.

Innovation is not reserved to a few chosen companies, nor does it depend on magic formulas available only to a few initiated. It is about good management. How your organization innovates determines what it will innovate. In the end, each company's innovation process is unique. What a company produces in the way of innovations, business growth and industry leadership will be determined by how the various pieces are arranged and how well they work together.