

January 2004

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### Recommended Citation

Harper, Susan J. and Becker, Selwyn W. (2004) "On the Leading Edge of Innovation: A Comparative Study of Innovation Practices," *Southern Business Review*. Vol. 29 : Iss. 2 , Article 3.  
Available at: <https://digitalcommons.georgiasouthern.edu/sbr/vol29/iss2/3>

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# On the Leading Edge of Innovation: A Comparative Study of Innovation Practices

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Susan M. Harper and Selwyn W. Becker

Companies want to be innovative, but what does innovation mean? How does a creative idea become an innovation? How do companies decide whether to invest resources in order to develop an idea? How does a company create a culture that values creativity and innovation?

Though companies have slightly varying definitions of innovation, all would agree that innovation requires the implementation of a creative idea. Further, numerous creative ideas are generated. It is the process of transforming a creative idea into a marketable product or service that requires risk-taking and is most challenging.

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Results of interviews with corporate executives and senior innovation officers in four of the largest Chicago-area, publicly-traded companies (*Chicago Tribune* Top 50 List, January 2003) and one government agency provide some insights into how each approaches innovation, why it is important to each business, and what are perceived to be the key challenges. The Innovation Equation model, Innovation = Creativity + Risk-Taking (Byrd & Brown, 2003), provided the basis for the interview questions. The intent was to learn how creativity (generating an idea) and risk-taking (taking action on the idea) are influenced by individuals, groups, leaders, and the organizational culture.

## Study Participants

Companies were solicited for participation based on three criteria. First, companies were identified as one of the *Chicago Tribune's* "Top 50" Chicago-based companies. The

top 50 represent Chicago's largest publicly-held companies based on both revenue and number of employees. Second, they were recognized leaders in their field based on business publications such as *Crain's Chicago Business* and *The Wall Street Journal*. Finally, innovation was a corporate value. Several government agencies in Chicago were contacted to participate based on the scope of their service areas and numbers of employees. The intent was to select participants in very different industries, none of whom competed with one another.

Interviews with participating companies were held with senior leaders (CEO and/or COO/CFO), innovation leaders (designated job title), and/or business unit or functional heads (marketing, technology and/or R&D). The scope of the interviews was limited to discussions of the innovation process and practices and did not include specific information about

current products or services being explored.

## Innovation Is about Creativity and Economics

The dictionary defines innovation as “the introduction of something new” (Morris, 1981). Afuah (2003) describes innovation as the use of new technological and market knowledge to offer a new product or service that customers will want—either the cost is lower, attributes are improved, or it has attributes new to the product or market. Research participants provided a broader view that is embraced by most of the business leaders interviewed—adding the dimensions of scope and economic value.

Regardless of the type of innovation—whether it be product, process, or service—it results in *significant* change. This change could be as simple as “changing the way we do something tomorrow,” a breakthrough which provides a substantial benefit to the customer, or one that dramatically increases the revenue or profitability of the company.

According to McDermott & O’Conner (2001), if companies are seeking breakthrough change, they must ask very different questions and use very different methods for seeking answers to those questions. “Radical” innovators, according to these researchers,

start with the technology and ask questions like “What applications will this technology enable?”; “What is the potential impact of this technology on the market?”; and “What is the order of magnitude of the potential market size?” Incremental innovations, on the other hand, ask questions like “How much market share can we attain?” and “How should we position the product?”

Other than the scope and focus, participants interested in breakthrough innovation believe “if innovation doesn’t deliver bottom-line results, it is just creativity” (see Appendix). Indeed, the very definition of innovation for Afuah (2003) is “invention plus commercialization.” The relationship of innovation to financial performance was well demonstrated in a study by Kim and Mauborgne (1997). In manufacturing environments, they found that while 86 percent of the product launches were line extensions—that is, incremental improvements—they accounted for only 62 percent of total revenues and 39 percent of total profits. The remaining 14 percent of the (product) launches—the true value innovations—generated 38 percent of total revenues and a whopping 61 percent of total profits. Businesses understand that innovation can have a significant impact on their long-term financial successes.

Not every innovation needs to be directly measured by a financial return on investment. As mentioned previously, incremental changes in quality and process improvement often yield important results such as improving work flow, efficiency and quality. Still, most of the focus remains on “breakthrough” change for our study participants.

All of the participant companies believe their prior and future successes have much to do with their innovation capacity—and all describe themselves as industry leaders. Three of the five companies say that innovation is a primary source of competitive advantage.

Applying the Five-Forces Model of Competition (Porter, 1979); rivalry, suppliers, buyers, and substitutes are all strong forces. Given that barriers to entry are high (a weak force), innovation may offer one significant way that these companies can gain advantage. Utterback’s (1994) concept of “dominant design” provides good insight into how an innovation can create a temporary monopoly situation that will weaken competitive forces; however, once an innovative product or service is launched, rivals typically begin to copy it (once patents run out). Hence, it is incumbent on the company to continuously seek innovation.

Innovation is not limited to products or services.

According to Afuah (2003), innovation is gained through a high correlation between competencies and assets. Companies that build a core competence are in an excellent position to take advantage of radical ideas throughout the entire value chain. Successful innovators are able to scan suppliers, customers, competitors, complementary innovators, related industries, research laboratories, universities, and their own value chain for any ideas or inventions that can be turned into profitable innovations. This idea is supported by Tushman and O'Reilly (1997) who talk about ambidextrous organizations—organizations that create innovation streams through all aspects of processes, structure, and culture. Indeed, those companies self-described as successful innovators work hard to take advantage of all potential areas for innovation and to nurture and support innovation.

## Study Findings

### Having a Structured Process Increases Innovation

Three of the five companies have highly-structured processes to drive innovation. Whereas some processes have hundreds of steps outlined in detail with accountabilities and responsibilities clearly assigned, others embrace a less rigorous approach.

Interestingly, a key difference between those companies self-described as “highly innovative,” or not, is that all of the “highly innovative” companies have a structured innovation process. Every innovation process has its strengths and weaknesses, but it seems articulating a process communicates the importance of innovation to the entire organization. In these companies more resources—people, technology, and funds—are devoted to developing new products, processes, and services. This supports positions taken in the literature.

The best innovators aren't lone geniuses. They're people who can take an idea that's obvious in one context and apply it in not-so-obvious ways to a different context. The best companies have learned to systematize that process (Hargadon & Sutton, 2000: 157).

For those companies without a centralized, defined process, innovation is focused on developing new products and services *in response* to a customer need, or an anticipated need. These companies build competitive advantage through customer satisfaction and measure that rigorously. Companies with a structured innovation process focus much more on *creating or predicting* the future needs

of customers.

### Not Having a Structured Process Increases Speed to Market

The primary disadvantage to having a structured innovation process is speed to market—the more structure, the longer the lead time is from idea to product or service. The only company that described its process as “quick” did not have a structured innovation process. Its mission and values communicated a strong focus on the customer. Employees were empowered to solve problems and create new products for the customer on an *ad hoc* basis. While this is highly beneficial for customers, the company stated it does not have a good process to share learning and avoid duplication of effort in other segments of the organization. A potential disadvantage of this approach, according to Utterback (1994), is that evolutionary change can be missed when companies are too focused on pleasing customers. Indeed, a senior leader at the participant company with this “customer-focused” innovation process believes it is potentially missing out on breakthrough opportunities.

### Determining ROI Is The #1 Challenge

The most challenging aspect of any innovation is determining marketability. Every company said it does

not lack creative ideas or creative people. In fact, most companies have more ideas than they are able to process in as timely a manner as they would like, but many ideas require significant resources to test, develop, and launch. Millions of dollars are at stake. Two factors seem to be at play in the “business evaluation” of a creative idea—the first is the degree of risk-taking required, and the second is accurately scoping the market potential.

**Risk-taking.** Taking risks is generally defined as being able to drive new ideas forward in the face of adversity (Byrd & Brown, 2003). Risk carries with it some potential for loss or gain, whether it is physical, financial, or emotional risk. Publicly-traded companies have a major dilemma. To guarantee a leadership position in their markets, they must stay on the leading-edge of innovation. This requires a long-term approach and a high tolerance for risk. Investors, especially in a down economy, want short-term results. As investors’ tolerance for risk decreases, so does the company’s ability to take the significant financial risk necessary to create breakthrough change; however, most recognize that investing in innovation is the “right thing to do” and are looking for ways to accelerate the process.

None of the companies in this study described them-

selves as high risk-takers. This may seem to contradict the fact that the companies studied are considered innovation leaders. Examining these companies using the Entrepreneurial Orientation Construct (Lumpkin & Dess, 1996) provides some insight into this seeming discrepancy. According to Entrepreneurial Orientation (EO) theory, successful new entry of a company, product, or service can be achieved when several of the following:

- a) autonomy (self-directed),
- b) innovativeness (engaging in and supporting new ideas and experimentation),
- c) risk-taking (venturing into the unknown, committing assets),
- d) proactiveness (first-mover advantage), and
- e) competitive aggressiveness (outperform industry rivals)

is present. Research (Lumpkin & Dess, 1996) has demonstrated in different contexts or environments that these variables are independent. Hence, it is entirely possible that such factors as proactiveness and aggressiveness can compensate for a tendency to be risk-avoidant. This would also seem to suggest that risk-taking can be viewed not only in terms of the potential for

loss but also as a means of achieving a sense of challenge and excitement.

Companies that are highly tolerant of risks generally provide rewards for trying something new, whether it fails or succeeds. The key is having a systematic process to debrief “failures” and use that learning to try something that does have more potential value.

**Predicting the market.**

Some companies are more risk-taking and comfortable with a “build it, and they will come” approach, while others find that the pressure to predict a monetary return on investment poses a barrier to innovation. Especially when totally unfamiliar ideas are being explored, a leap of faith is sometimes justified. Unfortunately, past failures may make the current climate for risk-taking especially difficult. Every participant cited the business evaluation or market predictive function of the process to be the most difficult one to manage.

While no one thought he or she evaluated ideas as *efficiently* as possible, one company thought it did this *effectively*. The key to effectiveness seems to be a balanced focus on both the customer, i.e., anticipating or changing future needs, and the technology. The technology component addresses

- a) the capability—can we produce this product;

- b) the synergy—does it capitalize on our unique talent; and
- c) the differentiation—does it differentiate us against competitors' products.

One company actively pursues a strategy of “acquiring” innovation by purchasing other smaller companies or partnering with small, specialized companies. This enables the acquiring company to more quickly bring a product to market and gives the smaller company access to funds it might not otherwise have.

**Inconsistently Applied Recognition and Rewards**

Every company indicated that recognition and rewards are important to innovation; however, no one in the study said his or her company had a highly effective system of

recognizing and rewarding all employees who bring forward creative ideas (except for those professionals whose job it is to create new ideas). While this can be difficult for large corporations, the methods that underlie many quality and continuous improvement initiatives empower employees to create ideas and reward them through gain-sharing or other incentives. Idea-generation is encouraged by rewarding team members for their involvement, as well as for the team results.

**Challenges to the Innovation Process**

Few differences in challenges were perceived by innovation-focused vs. customer-focused companies, but many challenges were common to both. Innovation-focused companies are defined as companies that provide

significant money and time to develop products or services *not yet defined* as a need or want of the customer. Customer-focused companies invest in ideas that *respond* to a customer need or are viewed as a potential solution to a customer’s current problem (Table 1).

**Best Practices Review**

Regardless of whether a structured innovation process is in place or the company implements new ideas in a more *ad hoc* fashion, innovation may be supported in many different ways. Some practices were focused on helping the individual generate new ideas (people), others at creating an effective idea-evaluation process (process), while still others aimed to structure the process itself in the most efficient way (structure) (Table 2).

**Table 1**

Major Challenges of Innovation-Focused Companies	Major Challenges of Customer-Focused Companies	Major Challenges Common to Both
<ul style="list-style-type: none"> <li>• Making “go” or “no go” decisions more quickly</li> <li>• Pulling people away from their “real work” to innovate</li> <li>• Predicting future customer wants and needs</li> <li>• Continuing to invest in innovation with long-term potential, but that may not yield short-term returns for investors</li> <li>• Having so many layers of evaluation that creativity is actually stifled</li> </ul>	<ul style="list-style-type: none"> <li>• Creative ideas occur in pockets, but the learning is not necessarily shared across the organization</li> <li>• Lack a process to capitalize on the creative idea in another part of the organization</li> <li>• Employees are not encouraged to think about products or services that may be a future need that the customer would not now perceive as a need</li> </ul>	<ul style="list-style-type: none"> <li>• Fostering cross-business functional opportunities, especially those in which a particular technology or process could be utilized by both to innovate</li> <li>• Gathering creative ideas of those not in management positions</li> <li>• Creating a need in the customer’s mind when one does not currently exist</li> <li>• Making risk-taking more acceptable and part of the culture</li> <li>• Creating appropriate performance measures for innovation, especially when business units are measured on individual P&amp;L</li> <li>• Providing incentives for both small and breakthrough innovations</li> </ul>

Table 2

Best Practices of Study Participants	
<b>Structure</b>	<ul style="list-style-type: none"> <li>• Innovation is a prominent feature of the corporate strategy.</li> <li>• Funding to develop new products and services is provided separately from operational funds so that business unit P&amp;L measures do not influence innovation decisions.</li> <li>• An innovation committee structure, which includes experts from both marketing and technical functions, meets to discuss and review ideas.</li> <li>• Annual or bi-annual two-to-three day innovation summits bring together people assigned to the innovation process to listen to innovation leaders from around the world and brainstorm opportunities for the company.</li> <li>• A state-of-the-art physical office space houses R&amp;D and marketing leaders from different parts of the company—this encourages informal communication, builds relationships, and provides an environment in which ideas can be more quickly discussed and explored.</li> <li>• Extensive worldwide bench-marking of companies defined as innovators in the company's field is completed annually.</li> <li>• Acquisitions are a key strategy to find products or services to complement the company's existing portfolio.</li> </ul>
<b>Process</b>	<ul style="list-style-type: none"> <li>• Prior to being reviewed by a committee, ideas go through a high-level "concept-testing" process that may involve focus groups, a pilot, or an environmental scan.</li> <li>• Scenario planning is used extensively to think about how the world will be significantly different in the future than it is today.</li> <li>• A metrics-based process is applied to the innovation process itself to track performance at multiple levels of the process.</li> <li>• Experts outside of the company's field are routinely hired as employees to learn the business and then brainstorm "out-of-the-box" ideas; i.e., creating a think tank.</li> <li>• Using play money, leaders are presented with various ideas and asked to "fund" the best ones.</li> <li>• Idea generation is linked to the quality process so that ideas can be generated at multiple employee levels, not just by managers or R&amp;D.</li> </ul>
<b>People</b>	<ul style="list-style-type: none"> <li>• An "innovation leader" is assigned full-time to oversee the innovation process and drive performance.</li> <li>• Executives are rotated through different business units and/or divisions so that everyone learns about each others' businesses.</li> <li>• Recognition and rewards are provided at all levels so that individuals not routinely charged with creating new products or services are encouraged to think about innovation.</li> <li>• Cross-functional teams are routinely used for everyday tasks to help drive innovation through a natural exchange of ideas.</li> <li>• Every employee is given 15 percent of his or her work time to generate and explore creative ideas.</li> <li>• The commitment to education and training, attendance at conferences, etc., is strong to continuously keep employees thinking about new advances in their industry.</li> </ul>

**Commonalities of "Highly Innovative" Companies**

While the best practices review presents specific

activities used to identify new ideas, evaluate the ideas, and launch the product or service, each company has its particular strengths and weaknesses with regard to innovation.

Clearly, the companies that described themselves as successful innovators have several things in common:

- A designated sponsor or someone to maintain focus and visibility and make sure resources are available to the innovation process (ACCOUNTABILITY);
- Idea-generation opportunities that are separate from day-to-day task assignments (EXPLORATION);
- A business analysis process that anticipates future customer needs and tolerates the pressure to provide short-term solutions to customer needs (DISCIPLINED PROCESS);
- A recognition that too many steps in the business analysis process can dilute the original idea or slow down the process to the extent that the product may not be leading edge by the time it is actually launched (EFFICIENCY);
- A willingness to tolerate failure but learn from failure (RISK TOLERANCE); and
- A culture of learning—at all levels (LEARNING AND COLLABORATION).

This model is supported by Hargadorn and Sutton (2000). In a five-year study of businesses that innovate constantly, they found that the best innovators systematized the generating and testing of new ideas.

Further, that this system can be replicated because “it has everything to do with organization and attitude and very little to do with nurturing solitary genius” (Hargadorn & Sutton, 2000: 158). The key steps in innovation are

- a) capturing good ideas;
- b) keeping ideas alive;
- c) imagining new uses for old ideas; and
- d) putting promising concepts to the test.

These are the success factors that other companies can adopt and foster within their innovation processes.

### Recommendations

Though the scope may vary, most of the practices utilized by participant companies can be implemented in any organization. While at least three of the companies studied demonstrated excellence in many of the best practices areas, the researchers identified three areas as having significant improvement potential.

#### Creating an Idea-Generation Process, Consistently Practiced, That Includes Employees from All Levels

This may be as simple as requesting new ideas from every department quarterly. A brainstorming session during a

staff meeting need only take 30 minutes. Another idea is to bolster existing “suggestion box” processes so that everyone feels that contributing is worthwhile. This would require some attention to the suggestion process itself, as well as the recognition and reward process associated with it. Employees should be trained in how to make suggestions and how to test ideas for process related changes before submitting a suggestion. Each suggestion must be evaluated by a committee and *responded to* so that individuals will know that suggestions are not a useless exercise. Involving employees in idea-generation, especially those not directly responsible for developing products or services, can reap some large benefits at a very low cost. Only modest monetary rewards are necessary for successful innovation ideas, especially since many companies have found that employees place high value on recognition.

Hargadorn and Sutton (2000) reinforce this need in their “knowledge brokering cycle.” Many good ideas can be captured simply by doing some focused work on specific problems. In other words, employees recognize that old ideas are their main source of new ideas.

#### Using Teams to Create

In most organizations, teams are extensively used to



evaluate ideas but rarely to generate ideas. Companies need to learn how to construct teams for the purpose of innovation. A team member should be selected based on his or her propensity to be more creative or more risk-taking. This could markedly increase innovation output. Better team selection can provide a balanced approach to addressing key challenges. Also, using teams builds a culture that demonstrates the company's commitment to innovation. According to Hargadorn and Sutton (2000), using teams to capture and share ideas is one method of keeping ideas alive—a key step in their “knowledge brokering” innovation process. Good ideas need to be nurtured by groups and incorporated into the information and communication systems of the company.

#### **Matching Creative and Risk-taking Individuals to Specific Tasks and Teams in the Innovation Process**

Some individuals are more likely to generate creative ideas and/or to be more risk-taking than others. Assessment tools to measure these propensities are readily available. By selecting individuals to participate in specific activities that further innovation, companies could capitalize on the unique talents of individuals. While the innovation literature is inconclusive about the

relationship between an individual's risk-taking propensity and that of the organization, research on entrepreneurial self-efficacy (ESE) indicates that innovativeness and risk-taking in individuals distinguish entrepreneurs from managers (Krueger, 1993). Thus, a company can help nurture individuals with ESE through its innovation process and reward systems.

#### **Conclusions**

Most companies in the study agreed that innovation is the implementation of a creative idea. Further, they strive for the type of innovation that significantly changes something about the way people live or do business and also provides financial gain.

Innovation can be very difficult to structure, as the companies in this research study have found. When providing a highly structured process to generate and evaluate ideas, the process itself may limit innovation in a number of ways. Requiring the idea to go through multiple “screens” before being funded can limit the scope of the original idea and potential impact of the final product. A further limitation on innovation occurs in evaluating marketability of an innovation. Frequently, marketability is perceived to require a “leap of faith” rather

than good, creative market research. It is the authors' perception that even the most innovative companies in the sample *underinvest* in market research *during the concept refining phase* of the innovation process. Risk could be reduced considerably by adoption of this strategy, but, of course, it could not be eliminated. Risk will still exist.

Most of the “problems” cited by participants were due to a low tolerance for risk—by employees (what they would or would not say), by committees (being afraid to invest money without knowing the return on investment), and the culture (wanting to be “right”). Raising the risk tolerance would reduce the amount of analysis required to bring a new idea to market, thus shortening the cycle time of new product/service development and increasing the likelihood of being first to market. According to psychologists, Kahn (1992) and Hirshorn (1988), people come alive when they feel safe. It is threat and anxiety that inhibit and deaden them. It would follow that in order for people in organizations to take risks failure must be tolerated. In other words, it must be safe to fail. The organizations that manage risk most effectively transform those risks into challenges and opportunities.

How to foster an innovative company presents difficulties. Innovation

requires that creative individuals be given the opportunity to test their ideas. Innovation requires the company invest in those ideas by taking risks. Most structured innovation processes are designed to minimize both psychological and financial risk.

The companies that participated in this study are clearly leaders in their fields. The same commitment to excellence demonstrated in their day-to-day operations also holds true to their standards for innovation. Innovation, however, by its very nature, is less controllable, less predictable, and more subject to failure.

Failure is difficult for anyone to accept, much less companies that have prided themselves on success and excellence. This is a difficulty seen by outside observers. The very values and standards that have made a company great can also impede its progress. Certainly, the participant companies will continue to be leaders, but, as the pace of change quickens, customers' expectations increase and investors demand returns, innovation will be even more threatened.

Companies have difficult choices to make in the years ahead. Much of the current research on innovation focuses significant attention on "creativity." Perhaps equal focus on how to help companies manage "risk-taking" more effectively will dominate the next phase in innovation research.

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### Appendix A Comparisons of innovation practices, profiles of participant companies

Companies were selected for this study from the *Chicago Tribune's* listing of "top 50 companies," defined by both revenue and number of employees. The government agency represents the only not-for-profit organization in the study.

Company/Industry	Insurance
<p><b>Definition of Innovation</b></p> <p><b>Current Focus</b></p> <p><b>Competitive Advantage</b></p> <p><b>Innovation Process</b></p>	<p>A breakthrough product or process that creates a sustainable competitive advantage.</p> <p>A way to capitalize on the knowledge capital/innovative ideas throughout the organization.</p> <p>Customer service excellence, strong brand equity</p> <p>Do not have a structured or standardized process to develop ideas on an ongoing basis.</p> <p>Will put together design teams on an as needed basis when a) an employee identifies a customer need that is not being met, or b) the customer asks for a particular product or service.</p> <p>Design teams come together for specific projects. Start from the value proposition of the customer. Highly successful innovations in short time frames when very focused on a particular customer need.</p> <p>Able to innovate quickly.</p> <p>Innovations have a quick return; new products or services have immediate market value.</p> <p>Some groups have weekly or bi-monthly service teams that are charged with getting suggestions from other employees and look at potential products.</p> <p>Have an organizational think tank made up of high-level experts in other fields (such as physics) will brainstorm large-scale opportunities and strategies. Currently working on a decision template, i.e., how to assess ideas.</p> <p>Working on a system to rapidly deploy good ideas to include dedicated resources, a knowledge exchange system, and rewards that support cross-region innovation.</p>
<p><b>Key Challenges</b></p>	<p>Much of the company's growth has been through acquisition. While this provides benefits in terms of bringing fresh ideas into the company, the challenge is to leverage the knowledge across the entire organization. There are many creative "pockets" but as yet, no structured approach to merging the knowledge capital.</p> <p>Culture is very independent, resists moving to an integrated system in which autonomy may be lost. A strong sales culture also works against team innovation.</p> <p>Innovation sometimes seen as "contemplating your navel," not a high priority unless specifically driven by customer identified need.</p> <p>Recognize the potential value of a more integrated idea-generation and product development process. Potentially losing opportunities because they are not identifying future needs that the customer is not currently aware of.</p> <p>When a new product or service is created, would benefit from thinking about cost, scalability, quality, and how to share the solution with others on a broader basis, not just create one solution for one customer.</p> <p>Building a reward structure to encourage ideas from everyone.</p>

<b>Company Industry</b>	<b>Manufacturing</b>						
<b>Definition of Innovation</b>	Innovation must deliver bottom-line results, otherwise it is just creativity.						
<b>Current Focus</b>	Developing cross-business product opportunities beyond current products.						
<b>Competitive Advantage</b>	Product Leadership, an industry leader						
<b>Innovation Process</b>	<p>A key element of success is the clear support of senior leaders and the board of directors in the innovation process based upon a general acknowledgement that “makes good business sense” (investigate and invest in innovation).</p> <p>This company has a highly-structured innovation process which has been in place several years. It involves specific steps and tasks associated with</p> <table border="0"> <tr> <td>Determining market interests,</td> <td>Idea generation,</td> </tr> <tr> <td>Development of a business proposition,</td> <td>Product prototype development,</td> </tr> <tr> <td>Roll-out, and</td> <td>Measurement of business results.</td> </tr> </table> <p>Three main committees make the “go/no go” decisions—a strategy board, a marketing committee, and a technical committee, all of which are led by senior officers. Other committees which spearhead specific tasks and functions are cross-business, cross-functional teams.</p> <p>Innovation Summits: Opportunities are provided annually for key people to spend 2-3 days listening to innovation leaders and brainstorming opportunities for the company.</p> <p>After the development of preliminary business cases, leaders are given play money and must determine which ideas to fund through the exploratory phase.</p> <p>Construction of a state-of-the-art physical office space that houses R&amp;D and marketing leaders and professionals from different divisions—this encourages informal communication, builds relationships, and creates an environment where ideas can more quickly be explored.</p> <p>Extensive benchmarking with companies having a strong innovation focus is used to support process design. A questionnaire is used for people to interview others about their innovation process.</p> <p>Very metrics-based, this helps in all aspects of the innovation process.</p> <p>The topic of innovation holds excitement for many people at this company, and most employees know there is a process and a way for them to bring ideas to the innovation team members.</p> <p>Have an assigned innovation leader, whose designated position is to assist in improving the process and introducing new concepts to the innovation team members.</p> <p>A sincere desire to create value for their customers.</p> <p>Though the process could improve, ideas can come from anywhere.</p> <p>The company is an industry leader in its field.</p>	Determining market interests,	Idea generation,	Development of a business proposition,	Product prototype development,	Roll-out, and	Measurement of business results.
Determining market interests,	Idea generation,						
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<b>Key Challenges</b>	<p>This company believes it already has strong processes that generally work well for innovation within a division. The focus is on creating cross-division opportunities.</p> <p>No easy mechanism to encourage ideas from employees not actively involved in the innovation process exists. The tendency is to only involve people at top levels of the organization.</p> <p>Need to train everyone in the suggestion-giving process, offer recognition for suggestions when they are given.</p> <p>Money is not an incentive. Need a stronger recognition system to recognize and reward suggestions and the intellectual property of individuals.</p> <p>Innovation awards are helpful, but need to provide more of them.</p> <p>Having enough projects moving through the process at any one time. Since many projects receive a “no-go,” it is critical to have multiple projects being evaluated.</p> <p>Need to make “no-go” determinations earlier in the process than currently being done.</p>						

Pressure from shareholders to fund projects with a short-term return vs. long-term return on investment.

Difficulty pulling in people not dedicated to the process to work on the evaluation and prototype development.

Sometimes the marketplace is not ready for our ideas, yet we see the long-range potential.

Though a great deal of emphasis has been placed on innovation, interview participants at best rated the company as a “4-5” on their risk-taking ability. This cultural tendency makes the process longer and makes it harder for ideas to be given serious consideration by the innovation committees. Have lost money in the past, makes it harder to take risks.

Goals and performance metrics are divisionalized, this discourages cross-division risk-taking. Each division must meet its individual targets and goals.

Some interviewees believe the innovation process is too market-driven, that the company may not explore options that may have long-term value, but that the customer does not even know they will want or need. The company is reluctant to create the need.

Sometimes innovation is seen as an “add-on” to regular work.

Need to set aside more time to brainstorm ideas.

Need to provide incentives for “small” ideas as well as the breakthrough ideas. Sometimes the small ideas can make a big impact.

<b>Company/Industry</b>	<b>Pharmaceutical</b>
<b>Definition of Innovation</b>	Breakthrough ideas to solve a customer’s problem.
<b>Current Focus</b>	Faster to market.
<b>Competitive Advantage</b>	Leader in key market segments.
<b>Innovation Process</b>	Innovation is communicated as one of the shared values for the corporation.  In order to tie innovation to customer knowledge, initial efforts to drive innovation were through the quality process. The goal was to secure customer loyalty (not only customer satisfaction).  Now that the quality process is well established, the company is focusing more intensely on educating and providing support for innovation.  The company has a defined process to assist groups from all functions to innovate.  The five-step model has been published on the company’s website.  There is a high-level innovation team responsible for driving innovation throughout the organization.  Idea generation is considered a success. The company has many talented employees with great ideas.  Consistently working to build competitive intelligence, learning how to be more innovative.  Learning how to acquire innovations through other companies.  Strong commitment to education, attendance at conferences, learning from other companies.
<b>Key Challenges</b>	Very networked leaders, can attract and retain key talent. Groups using the innovation model are having difficulty creating a business concept plan and subsequently launching the product or service.  No cross-functional reward system is in place.  Conservative culture makes change to a more innovative culture much more difficult. Risk-taking is consistently rated as “low.” The culture supports a slow decision-making process.  The organizational design is still much layered, does not support fast decisions. The company has seven levels—five within R&D.

Need to focus on process improvement and process innovation. This would allow the company to act faster.

Incentives for risk-taking are not in place.

Individual leaders may allow risk-taking, but not supported as an organization.

Allowing time for employees, especially those not in R&D to develop and launch new ideas.

If there is not a perceived immediate need for a particular product idea, the idea may not be fully explored.

Very market-driven, innovation is primarily about solving needs that the customer identifies.

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<b>Company Industry</b>	<b>Public Service, Government</b>
<b>Definition of Innovation</b>	Being able to think out of the box.
<b>Current Focus</b>	Implementation of ideas.
<b>Competitive Advantage</b>	Strong leadership, innovative thinker.
<b>Innovation Process</b>	Innovation became a key factor in this organization's vision a few years ago. The company has a well-articulated plan for the next 20 years.
	Aside from the planning process, there is not a structured approach to idea generation, evaluation, or implementation.
	The company recognized the need to utilize more technology and has researched leading edge technology options.
	The company has a strong community base and works extensively with community members to implement improvements.
	There are many innovative options on the table, which would contribute to company growth.
	There are a few innovative pockets, primarily due to the leadership of that particular area.
	At senior level, willing to take risks, try something new, listen to ideas.
	There is a strong desire to do business very differently in the future than is currently being done.
<b>Key Challenges</b>	Currently providing recognition to those bringing new ideas forward.
	Understanding market area needs. Thus, it is not known how successful many of the ideas articulated in the vision will be.
	Employee population strongly unionized, culture that views risk-taking as bad, not wanting to make a mistake for fear of being punished.
	Economy has slowed the organization's ability to implement many good ideas. Partially dependent on government funding.
	Must use current resources to grow and change.
<b>Company Industry</b>	<b>Telecommunications</b>
<b>Definition of Innovation</b>	Change the world order, a significant change in the way something is done.
<b>Current Focus</b>	Becoming more customer and market focused.
<b>Competitive Advantage</b>	Engineering quality and technology.
<b>Innovation Process</b>	This company is working to develop a Strategic Innovation Center to provide a warehouse of ideas and patents. Currently, labs and the product engineering arm in each business unit provide this function.
	People are described as incredibly creative and very leading edge in terms of their knowledge, capabilities, and technical expertise.

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This company has a highly structured innovation process, which is meticulously outlined and communicated to employees. It has five key stages, outlines below, and more than 100 individual steps and/or activities to be performed within these steps.

1. Business case development
2. Portfolio planning
3. Project definition
4. Implementation
5. Launch and closeout

Prior to an idea reaching this stage of evaluation, the idea must go through a "proof of concept" process, which may involve focus groups, a pilot, an environmental scan, or a business plan.

Results of the initial scan are presented to a group of experts outside of the company, who are recognized for their expertise in an area of interest. These experts may be recruited from anywhere in the world.

Extremely strong support of innovation at the board level and significant financial investments made in innovation.

Entire innovation process is very metrics-based, very disciplined.

High commitment to quality, rigorous standards for products.

Six sigma standards are applied to the innovation process.

Have good synergy between divisions as they innovate. This was not always the case, but management recognized that having competition between divisions was not healthy. Thus, they created a single approach to innovation, changed the reward systems to support that approach, rotate leadership among divisions, and train everyone in their common approach. This rotation of executives is considered one of the most important features of their culture because it helps everyone learn about the others' business.

Cross-functional teams are the norm.

Layers of management have been eliminated to make it easier for ideas to bubble up from all employees.

There is no lack of ideas being generated and being evaluated through the innovation process.

Use scenario planning as a key component of the innovation process to create a future vision of how the world will look.

Every employee is encouraged to use 15 percent of their work time to generate and explore innovative ideas.

#### Key Challenges

This company is highly technology-driven, and as such, has a limited tolerance for having creative ideas evaluated, either by internal business analysts, marketing, or external customers.

Making technology customer-friendly, i.e., making sure that products and features are what the customer wants or needs.

Shareholders necessitate a focus on quarterly reporting, this creates barriers to funding projects which have a long-term payoff.

While the innovation process is strongly supported and the company is a leading-edge innovator, the process itself may inhibit spontaneous creativity. Also, the tendency in the process is to be too internally-focused on our technical capabilities and less focused on the needs of the customer.

The company is not organized around market segments but around technology capabilities and geography.

Anticipating what the customer will want in the future, creating a need that the customer does not know about yet.

Economic cycles impact the climate for innovation; in a down or a war economy, innovation becomes more difficult to fund. Innovation requires a tolerance for higher impact, higher risk, and long-range projects. When revenues are down, investments become more difficult to justify.