Overcoming the barriers to effective innovation

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One CEO summed up his company's dysfunctional approach to innovation succinctly – ''We say innovation is our top priority, but we don't effectively allocate our time, resources and efforts to walk the innovation talk.'' Other executives tell us that the reasons their companies aren't effective innovators are that ''innovation is risky;'' ''the urgent (quarterly earnings) drives out the important (innovation)'' and ''we punish innovation failure but don't reward innovation success.''

We've all heard statements such as these that indicate that many CEOs don't know where to turn to overcome a variety of innovation barriers. While anecdotal examples of successful innovations abound, the reality is that most companies are not good at innovation and few understand what it really takes to build a sustainable organization-wide competence for innovation.

Based on a combination of our extensive experience during the last ten years helping companies develop a core competence in innovation and on the results of a recent in-depth innovation survey[1], we at Strategos have three key pieces of advice for companies that aspire to be successful serial innovators:

1. *Don't just treat the symptoms*. The obstacles most executives identify, such as the ones quoted above, are merely symptoms of a deeper innovation problem. For real traction, you need to act on their root causes found in four areas: leadership behaviors, management processes, people and skills, and culture and values.

2. *Don't only act on one root cause*. It can be tempting to only focus on one underlying issue, but companies that want to become truly good at innovation need to act systemically in all four areas – action in one area alone won't yield sustainable success.

3. *Don't blindly copy best practices*. Instead conduct an ''innovation diagnostic'' to pinpoint your company's specific innovation issues and opportunities, learn from the ways others have addressed similar challenges, and build a tailored action plan to address your company's most critical issues.
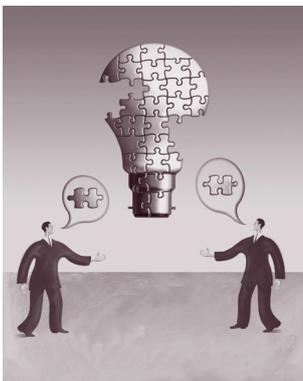
Major obstacles to innovation – symptoms and root causes

In the Strategos survey of innovation practices of more than 550 large companies, an overwhelming majority of respondents in every industry rated innovation as critical and said that the importance of innovation would grow in the future. However, most respondents were critical of their companies' innovation effectiveness – for example, only 19 percent said their companies ''walked the talk'' on innovation, and a majority rated their company's innovation effectiveness below average.

The top six obstacles to innovation identified by respondents were consistent across industries:

1. Short-term focus.

2. Lack of time, resources or staff.

3. Leadership expects payoff sooner than is realistic.

4. Management incentives are not structured to reward innovation.

5. Lack of a systematic innovation process.
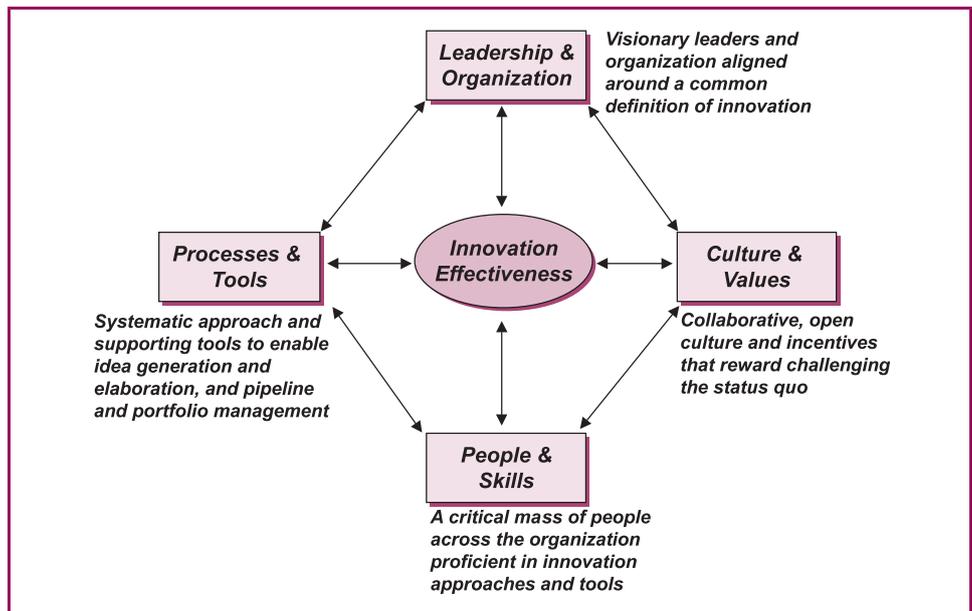
6. Belief that innovation is inherently risky.

When respondents discussed their attempts to address these obstacles, it became clear that they were dealing with them piecemeal rather than in a systemic way. For example, some organizations sought to make their management incentive plan more innovation-focused, but couldn't sway their leaders from focusing their energies on the latest cost reduction exercise. Others dedicated more people to innovation – but failed to get time and attention from the line organization. Others put an elaborate innovation process in place, but didn't reward innovators and business leaders for innovation successes.

Many approaches to innovation only address the obvious symptoms of a company's innovation problem. For example, if scarcity of ideas seems to be the issue, a common tactic is to hold more idea generation sessions. If resources appear to be the problem, then a standard solution is to appoint an innovation team to carry the innovation effort forward. If lack of process is a concern, then firms often implement a stage gate process. While many of these suggestions have merit in their own right, our work has shown that to become a successful serial innovator, you need a systemic approach that addresses all four underlying interrelated root causes of innovation ineffectiveness – leadership and organization; processes and tools; people and skills; and culture and values (see Exhibit 1). Without a systemic attack in all four areas, your innovation efforts are likely to fail – or at best to produce a one-time gain that won't be repeated.

Leadership and organization

In our survey, among the companies who ''walk the talk'' of innovation, 80 percent have leaders who frequently reinforce the importance of innovation – versus only 8 percent

Exhibit 1 Four keys to a systemic innovation capability

Leadership & Organization — Visionary leaders and organization aligned around a common definition of innovation

Innovation Effectiveness

Processes & Tools — Systematic approach and supporting tools to enable idea generation and elaboration, and pipeline and portfolio management

Culture & Values — Collaborative, open culture and incentives that reward challenging the status quo

People & Skills — A critical mass of people across the organization proficient in innovation approaches and tools

among companies that are happy to be followers. Many company mission statements list innovation as a core value. But when executives ask only about daily sales, the latest headcount reduction project, or the improvements in inventory turns, guess what their people focus on? As one of the respondents to our innovation survey said: ''Executives that are serious about innovation think about it, demonstrate its importance through their actions, and then follow through to make sure it gets done. Innovation without follow-through is resources wasted.''

The CEO of a large aerospace service provider provides a good example of appropriate leadership behavior. He realized that his leadership team was spending too little time on growth and innovation issues. He then ordered the entire senior team to meet over the course of ten days to discuss only innovation and strategy issues until they developed a shared understanding of their growth strategy, understood its implications and resolved associated resource concerns. Since then, the executive team has held regular venture council meetings focused only on growth opportunities, and leaders are evaluated based on their success in meeting growth objectives. The CEO personally holds his leadership team accountable for putting the dollars he has earmarked for innovation to good use.

Of course, ''walking the talk'' of innovation needs to go beyond the CEO. But that is where it has to start. Without this leadership, innovation efforts are doomed to fail.

Processes and tools

In many companies we have worked with, people are told to go innovate, but they are not given the processes and tools they need to succeed. Other companies go to the other extreme by implementing rigorous processes that squeeze the life out of would-be innovations instead of nourishing good ideas into better ones. As a chemical company executive once told us ''we have a good New Product Development (NPD) process, but we are not getting results in either size or number of opportunities.'' The company had become so caught up in their stage gate process that they had lost sight of the outcomes. People even stopped submitting new ideas for fear of having to fill in the paperwork (their process required filling out over 50 documents).

Our experience suggests that good innovation processes share the following characteristics:

■ *Allow divergence and exploration at the front end*. This helps ensure that the new ideas generated aren't simply a re-hash of what has been done before.
At Best Buy, members of the innovation team built new business concepts based on their ''hands-on'' experience of observing consumers behave – in their normal habitats[2]. Best Buy realized that with the proper tools and guidance, anyone on the team could collect the insights that would form the basis of its new businesses. Teams were empowered to conduct study missions in the most atypical places. To expand their customer view beyond the typical young techno-centric male customer, Best Buy employees visited the American Girl store in Chicago and learned how the store provided a destination for girls and their mothers. And to understand the frustrations of less tech-savvy consumers, they went to the Amish country in Indiana and to the poorer neighborhoods of Mexico City. The result? Hundreds of new ideas in Best Buy's innovation pipeline which stretched the existing business model in new directions – to new consumers, to new shopping destinations and to new services.

■ *Synthesize individual ideas into bigger platforms before selecting individual ideas to develop further*. This enables the company to avoid ''betting the farm'' on one idea without first learning about the larger opportunities at hand.
The Valvoline Company, a division of Ashland Inc., identified several technologies and products that could be used to delight the senses (scent, sound, sight) in the interior of a car. Before rushing off to launch these promising new products on a one-off basis, Valvoline grouped its ideas into a larger business platform – ''the Car Environment'' – and developed a migration path for how these product ideas would evolve over time. It also took the time to observe how consumers spent time in their cars – and to understand

consumer frustrations, for example, that many shoppers felt that the odors of existing air fresheners were too strong. The first product on the migration path – AroMetrics, a line of automotive fragrances that are designed to be long lasting, consistent, controllable and to smell good but not be overpowering – was introduced to the marketplace in January of 2005. The product line has exceeded planned expectations.

▪ *Use experiments to test critical assumptions and refine the business model before locking it in.* This helps minimize the risk associated with market entry and incorporate key learning into the business model before it is too late.

Like other world-class innovators, McDonald's understands the value of experimenting before committing to a new business. A recent *Wall Street Journal* article[3] revealed that the world's largest quick service restaurant is scaling its vending subsidiary, RedBox, to 1,000 locations in the USA. Before launching its 24-hour automated vending machines, McDonald's ran a test project under the name TikTok Easy Shop. Initially launched as a test in the Washington area, the first wave of pilots was tested iteratively by a group of enterprising associates. Today, it has evolved into a successful business, with 550 locations, focused on video rentals. The early pilot enabled McDonald's to test the critical assumptions of the new business, especially whether consumers would be willing to ''trust'' vending machines, and permitted it to improve the initial technological limitations of the first kiosks. While most RedBoxes are located at McDonald's restaurants, the company continues to test them in alternative locations, including drugstores and supermarkets.

▪ *Adjust evaluation criteria throughout the process to reflect the stage of development of the innovation.* This helps ensure that promising ideas are not killed prematurely.

For example, rather than using typical ''business case'' financial criteria throughout the entire innovation process, one of our medical products clients uses a different set of criteria for each stage in its innovation pipeline – from ideas just generated, to ones being tested, to ones being scaled up, to those being developed into full-fledged businesses. Though the bar becomes higher over time, users of the process view the criteria not as bureaucratic hurdles but as mechanisms for improving the quality of their ideas. ROI-type financial measures are used at late stages of the process to assess whether to take well-developed opportunities to market. But such metrics are not appropriate for fledgling ideas because the numbers are simply meaningless. At early stages in the innovation process, the company finds it much more useful to ask the kinds of questions a venture capitalist would ask – such as ''how big is the space?'' and ''is there a significant customer unmet need here?''

People and skills

Building a sustainable competence for innovation requires an organization to harness the creativity of its employees. In our survey, companies that involved many employees had better innovation results than companies that involved few people.

Though companies often pay lip service to the need to harness innovation talent throughout their organizations, in practice they restrict innovation to a few areas or departments in their company. Numbers are not enough. Diversity matters too. Too many companies view innovation as the domain of R&D only, or perhaps of R&D and marketing. But people in manufacturing, supply chain, human resources, finance, service, and other functional areas can be creative too – if given an opportunity. Creativity and imagination are unevenly and somewhat randomly distributed, and one never knows where the next big idea will come from.

A large privately held chemicals company, in its effort to transform itself from a commodity to a specialty provider, created a cross-functional global innovation team to explore new opportunity areas for the company. Traditionally R&D was responsible for innovation, which the company defined in terms of new technologies. The innovation initiative provided a chance for the organization to think more holistically about innovation from a business model perspective as accountants and plant managers worked alongside salespeople, engineers and chemists. Each team member brought his or her own expertise to the table; it wasn't

long before R&D managers were developing go-to-market strategies and accountants were applying emerging technologies to customer needs. This cross-functional effort enabled the company not only to discover new talent in the organization, but also to enhance the quality and quantity of its innovation initiatives.

Culture and values

Far too often, companies minimize the importance of organizational culture when it comes to innovation. As one executive told us, ''real and continuing innovation comes about as a result of a deeply ingrained culture of innovation.'' Many companies we have worked with suffer from a fundamental cultural flaw – a fear of failure. These organizations do not consider failure to be an option and unsuccessful risk takers are stigmatized.

In contrast, Virgin is a company that has done an exceptional job of creating an environment where employees feel that not only it is acceptable to innovate, it is expected of them. The actions the company has taken to promote this broadly held innovation culture are wide ranging. They include making the home phone number of CEO Richard Branson available to everyone in the company who wants to share a new idea, focusing its hiring on people who aren't afraid to challenge the conventional wisdom, making bureaucracy and hierarchy anathema, and talking about the business as being about ''creating memorable events'' for customers.

Google is another exemplar in this respect. It reinforces the importance of innovation by letting employees spend 20 percent of their time working on their own ideas and keeping several active e-mail lists to collect ideas from all employees.

Organizations can't expect to transform their corporate cultures overnight. But they need to create a ''safe zone'' for innovators and to accept ''mistakes'' as a necessary part of innovation. If not, fear will prevent step-out ideas from being put forward and companies will remain trapped in their status quo.

Case: the holistic approach to innovation at Whirlpool

Whirlpool is among a select group of companies that have taken a holistic approach to building a competence in innovation by addressing leadership and organization, process and tools, people and skills, and culture and values all at once[4]. Since it first conducted a global innovation project in 2000, Whirlpool continues to walk the innovation talk and act on its vision of ''Innovation from Everyone Everywhere'':

- Leaders are held accountable not only for the development of new products and services but also for the creation of processes and systems that foster innovation throughout the organization. Importantly, Whirlpool's efforts have not been hindered by the changing of the guard at the top: Jeff Fettig, who took over as CEO from Dave Whitwam – who had started the whole innovation effort – continues to drive the company's innovation agenda forward.

- On the process front, Whirlpool actively uses its Innovation E-Space knowledge management system to provide a ''dashboard'' view of its innovation activities, to track the mix of incremental versus radical ideas and to engage would-be innovators throughout the organization. To debunk the myth that innovation has to be risky and costly, it has established a seed fund for innovation in each region that is accessible to innovators at all levels, not only business unit heads.

- Whirlpool recognized early on that harnessing the talents of its people would be critical to its success. It created a team of Innovation Consultants whose job was to teach others in the organization about innovation and help them with their innovation challenges. Over time, more and more people through the organization have been touched in one way or another by the innovation effort, and many of them have emerged as innovators themselves.

- As a result of its innovation efforts, Whirlpool's culture has evolved. The company has made great strides in addressing some of the cultural barriers to innovation it encountered, such as risk aversion and the not-invented-here syndrome. In the past, most Whirlpool employees left risk taking to the upper echelons of the organization for fear of failure. Today, there is widespread belief that failure is part of learning – and hence a critical component of innovation. Cutting risk through experimentation is an essential part of the company's innovation process and the organization routinely looks to ''shelved projects'' from other parts of the world for application in new marketplaces.

Getting started

Organizations can't expect to get overnight to where Whirlpool is today. Building an innovation competence takes time, but getting started is simpler than it looks.

An approach that a number of our clients have used successfully is to conduct an Innovation Diagnostic to identify their organization's enablers and impediments to innovation. Unlike other approaches, it identifies the root causes of the problem – not just the symptoms. As root causes vary by company and by industry, companies should not expect to adopt an ''off the shelf'' approach to building an innovation capability. They need to build an action plan that reflects their specific innovation situation and identifies the priority areas that need addressing.

Our experience suggests that an innovation diagnostic should take between four and eight weeks and include three main components:

1. A review of the opportunity pipeline and marketplace results.

2. A ''health check'' of the four keys to a systemic innovation capability – leadership and organization, processes and tools, people and skills, and culture and values.

3. Comparison to the practices of leading innovators.

Opportunity pipeline review

To determine the health of the new product or business pipeline, a portfolio review should analyze a company's track record in bringing new businesses to market (often determined by assessing the percentage of a company's revenues that can be attributed to innovation). It should also look for a balance of short-term versus long-term opportunities and for a healthy mix of incremental and breakthrough innovations.

For example, we recently helped a toy manufacturer realize that it was spending too much time trying to reach the current year's revenue goals at the expense of meeting evolving consumer needs and developing products for several years out. As a result, the organization decided to re-map its existing products and services into a set of platforms which enabled the organization to more effectively deploy R&D, design and marketing resources to generate both incremental and breakthrough opportunities. By bringing discipline to its product development process, the company better prepared itself to manage the short-term demands of its retail customers while at the same time driving its longer-term growth agenda.

Innovation capability health check

This part of the analysis assesses the specific barriers a company faces in all four key areas: leadership and organization, processes and tools, people and skills, and culture and values. In addition to understanding how effectively the company is deploying innovation processes and tools, it assesses the extent to which levers such as resource allocation mechanisms,

reward systems, measures and metrics, leadership behaviors, organizational structure and corporate culture support or hinder innovation. The diagnostic includes interviews with both users and ''customers'' of innovation levers, processes and tools and results in a tailored action plan for addressing the most critical gaps in the company's innovation capabilities (See Exhibit 2, a simplified sample of the Strategos innovation diagnostics used in practice).

Comparison with innovation best practices

While there is no cookie cutter approach to innovation, there is much to learn from the practices of successful innovators. For example, a leading financial services company recently held a series of two-day workshops for their top 200 executives over the course of a year in order to understand and apply innovation best practices within their own organization. Beginning with a sobering assessment of their own capabilities, they learned to appreciate why it is so difficult to innovate profitably within a large enterprise. Yet, by understanding and challenging innovation myths, the barriers to innovation began to fall. At present, this organization is conducting several pilot programs that challenge the basic

Exhibit 2 A simplified sample of the Strategos innovation diagnostics used in practice		
First, pick the statement that describes the overall state of innovation at your company. Then rate your company on the four levers of innovation effectiveness		Your score (1 = completely untrue, 5 = very true)
Innovation at your company	Which of these statements best describes the reality of innovation at your company? Pick one: We walk the talk. It's systemic and woven into the fabric of the company. Every employee is aware that innovation is important and has the opportunity to participate in programs that use the concepts of innovation We understand and value the concepts and processes of innovation but we use it mostly for incremental improvements. We need to invest more in the discipline, but at least we view it as a process and do see some results We talk about it. We recognize that it's important. We make some attempts at using innovation as the banner under which to seek improvement. But we don't have an innovation process and our attempts to innovate haven't been very effective so far We are happy to be fast followers. We don't think of innovation as a discipline to drive growth	
Leadership and organization	1a. Leadership spends time acting on – and not just talking about – innovation 1b. Company leaders are appropriately assessed and/or rewarded on their innovation performance 1c. Our leaders effectively communicate with the broader organization regarding innovation activities, successes and failures 1d. Leadership consistently allocates the resources needed to fund and staff innovation efforts 1e. Our company has set objectives or measures to drive innovation	
Process and tools	2a. Our NPD/innovation process is effective in turning out new growth initiatives for our company 2b. It is easy to understand and use our innovation/new product development process 2c. Tools and technologies are readily available to help us innovate more efficiently	
People and skills	3a. Our company provides training in creativity, innovation and/or other problem-solving techniques 3b. Would-be innovators can get funding, space and time to pursue promising opportunities and ideas 3c. People are recognized and rewarded appropriately for helping our company innovate 3d. We effectively transfer knowledge, skills and ideas across departments, sites and regions	
Culture and values	4a. Our organization knows how to learn from failure and encourages informed risk taking 4b. Our company strategy is widely understood and believed throughout the organization 4c. Our company is recognized in the marketplace as an innovator 4d. People from throughout the organization are encouraged to participate in our innovation efforts	

Total score:
65-80: Your company is doing what it needs to be an effective innovator
48-64: Your company is making progress but make sure you pay attention to your areas of weakness
16-47: Your company has much work to do. Time to get started

conventions of pricing and underwriting within the property and casualty insurance industry. In one pilot case, the policy is free for the first year. Results to date: new customer enrollments, profitable renewals and an extended leadership team committed to busting innovation myths and industry paradigms.

Conclusion

If you want to stay in business tomorrow but also prosper longer term, you have no choice: you need to proactively improve your organization's innovation effectiveness. The bad news is that there is no magic bullet to doing so and that it can't be done overnight. The good news is that companies have succeeded in building an innovation competence. Conducting an innovation diagnostic and acting on its results is a proven way to get started. Acting systemically on all four root causes of innovation blockages will help companies complete the job.

So what is innovation?

Innovation isn't just about coming up with a new product, an enhanced service or a disruptive technology. Innovation must involve a deep consideration of all the elements of a company's business model, including:

- What customers should we serve? Can we open up new markets or plug into untapped segments?

- What customer benefits will we provide? What products and services will we offer?

- Where in the value chain should we play? What partners can we work with to reach our target customers? How will we get our products to market?

- How will we make money? Are there unconventional ways to generate revenues and profits, or radically take costs out of our business?

- Can we bring this innovation to market significantly better than anyone else – and how can we keep that advantage long enough to make this opportunity pay off?

In a nutshell, some innovations are more about the customer – as when Whirlpool introduced appliances designed for the garage to men via their Gladiator line. Other innovations focus more on product design– as when Apple showed us that computers could come in forms other than grey boxes. Still others distinguish themselves by how they go to market – as when University of Phoenix provided online distance learning without investing in tenured professors or ivy-covered buildings. And new economic models lead to innovation – as when Cadence, the world's leading software firm serving the semiconductor design market, changed the licensing scheme offered to customers from the standard 99-year license to a ''3-year'' license. And of course, if you can innovate on several business model elements simultaneously – as Dell or Southwest Airlines have done – this will make it that much harder for your competitors to copy you.

Notes

1. Strategos Innovation Survey, January 2004.

2. Best Buy, Co., Inc., *(A): An Innovator's Journey*, Video, HBS, Sep 4, 2003, Dorothy Leonard, Brian J. DeLacey

3. ''Buying an iPod from a vending machine'', *Wall Street Journal*, September 1, 2005.

4. For a more detailed account of Whirlpool's innovation efforts, see *Strategic Innovation* by Nancy Tennant Snyder and Deborah Duarte (2003, Jossey-Bass).

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