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The Innovator's Dilemma

Everyone wants to be innovative — the best returns come to those who are first to market with a new product; those who innovate new and better processes that can provide much better quality at much lower costs; those who can create a management system or culture that constantly is clicking on all cylinders. Innovations such as these create powerful competitive advantages. But how often do they happen? Innovation is challenging for all of our organizations: large and small.

In our experience and research, we find that innovation is truly enigmatic:

- Large organizations have more wherewithal to invest in systematic innovation, but smaller organizations seem more capable of capitalizing on innovative ideas. Why?
- Most innovations come not from visionaries at the top but from people closest to the work. Yet paradoxically, strong leadership and vision at the top of the organization are required to create an environment that fosters innovation and risk taking. Without strong leadership, organizations become bureaucratic and risk-averse.
- Outsiders often have the most innovative ideas, but insiders' know-how and buy-in are required to get them implemented.

This newsletter will first discuss some of the barriers to innovation and second, some ways to overcome these barriers.

Mary Jane Conway-King

Innovation — Necessity is the Mother of Invention

by: Sheila Julien, Senior Associate

Barriers to Innovation

Our experience and research into barriers to innovation surfaced some paradoxical observations. Organizations may give innovation too little time, or too much. Large organizations have lots of resources, but perhaps too much to lose. Some people or organizations can generate too many ideas to actually accomplish anything.

Lack of Time or Too Much Time?

Many organizations cite the lack of time and attention to innovation as a major barrier. People are too busy to think about innovation. "If my boss's boss is too busy to think about new and better ways of doing something, I better be too." This is a good recipe for keeping things exactly the way they are while the world passes by.

But dedicating resources to innovation does not seem to work that well, either. It may foster a creative environment, but this does not necessarily translate into more workable innovations. One organization created an innovative think tank with 12-14 people led by a senior executive. After two years they were disbanded because while they came up with some innovative ideas, none of them were financially viable. Similarly, Xerox created an inventor's paradise, Palo Alto Research Center (PARC), assembled incredible talent, big budgets, and freedom from oversight by senior management back East. They envisioned a great number of wonderful things, but that did not enable them to bring these visions or prototypes to market. Many of their greatest ideas were brought to fruition by other companies.

Too Much at Stake

Innovation requires risk taking, and large, well-established organizations simply have a lot on the plate to risk. When the large financial information firm, Bloomberg, was a small start-up with a few big ideas, the founders carried their prototype via taxi over to Merrill Lynch, their first customer. The computer had only partial functionality and nowhere near the required reliability — yet. But the risks of not bringing it out, of waiting until everything was in order, exceeded the risks of showing the product, even with some flaws remaining and some features not quite built. The meeting went very well, and the rest is history. But when a well established company with a broad customer base introduces a new product (a position Bloomberg finds itself in today), expectations are quite high and risks must be carefully weighed. Each potential innovation must be considered and evaluated in light of the existing portfolio of products and commitments. Innovation becomes much more complicated and difficult.

Similarly, managers at middle or high levels in an organization often have completely different risk profiles than they had in their twenties when they were just trying to make a name for themselves. For middle management, the costs of introducing a bad idea can far outweigh the costs of not introducing a good idea, and they become risk-averse.

Consider the impact of risk-aversion when the number of great ideas is a function of the total number of ideas. When it comes to innovation, the win/loss ratio is meaningless. All that matters is how many wins you have. And the number of wins varies with the number of tries. As Thomas Edison once said about his long journey toward a working light bulb, "I have not failed; I just found 10,000 ways that didn't work." How many incomplete or unworkable ideas must one consider to find a real winner? Quite a few. Yet at what ratio of rejected ideas to accepted ones do people decide to keep their heads down and continue doing things the way they have always been done? Little wonder innovation is so hard to come by.

"Too Much of a Good Thing"

We cannot innovate with too few ideas, but can't get anywhere with too many. Innovation requires a well disciplined process as well as a fast flowing stream of ideas. An organization needs to have an effective way to pivot from idea creation to sifting, sorting, choosing, and doing. Ideas can get in the way of deeds, and effective innovation requires both.

Tools & Methods that Help

As challenging as it is to create an innovative organization, we have identified some important observations and enablers for innovation. These methods require strong and empowering leadership to lay out the market constraints, make clear the threats from the changing environment and the opportunities that may arise, and provide the amnesty to take a risk to put ideas and observations on the table.

"Necessity is the mother of invention"

When Xerox PARC created the mouse, it was simply amazing. And it cost $300 to build and only worked for a few weeks, but they had a generous budget so it was okay. Yet to make the mouse truly innovative required something quite different: constraints. Steve Jobs had the vision to add the constraints: the mouse must be buildable for under $15 and operate reliably for two years.

The Toyota Production System was another innovation born of scarcity. When, in the 1950's, Taiichi Ohno led a delegation to visit Ford to learn how to build automobiles, he was dismayed by the inventory, the huge warehouses and sprawling production facilities, the staggeringly large workforces. Toyota had nothing like those resources to emulate that system. They lacked the capital for all that inventory and they lacked the space for those sprawling production facilities. They needed a much leaner system, and so they invented one, quite improbably, from studying the way the Piggly-Wiggly grocery store operated its bread replenishment!

Perhaps the in-house innovation team that was disbanded because none of their ideas were financially viable simply did not realize that the ideas were not yet complete. For successful innovation, you need people to seek out the real-world constraints that must be respected in order to actualize the idea. Until the idea can work within the constraints — like Apple's mouse, or Toyota's production system — it is still in the germination stage, not yet a true innovation.

"Freedom is just another word for nothing to lose"

One company observed that when their very survival was at risk, they began to implement a program of Continuous Improvement that called on everyone to contribute innovative implementable ideas. Because they had to develop new and better ways of operating, they did! Similarly, a start-up company with few resources must innovate or quickly wither away.

And it must be less scary to try something new and risk failure than it is to stay with the status quo. To create this condition, you must provide amnesty to reduce the risk of sharing new ideas. And it also helps if the status quo looks pretty untenable. Never waste a crisis, and if you don't think you have one, look further around you. Change is inevitable; a threat is always on its way.

Operational disruption can also be a catalyst for innovation. Perhaps this is a variation on the constraint. If the system or tool or supplier or technology you used to use is going away or changing, it is a good time to rethink the work entirely.

"It is easiest to think outside the box, when you are from outside the box"

Outsiders often come up with the best innovations, because they have no ties to the status quo. But outsiders often have a difficult time effecting real change because they are outsiders. A senior manager of a once innovative company wryly observed, "We say we like to bring in outsiders with fresh ideas, but when they share them we explain that's not the way we do it here."

Know the market; know your customers — internal as well as external

Market instincts are more valuable than technological know-how or financial heft. For example, in Malcolm Gladwell's fascinating article in The New Yorker, Creation Myth — Xerox PARC, Apple, and Creation of the Mouse, he suggests that Xerox could never have capitalized on the mouse because they did not have the instincts for the consumer market. They had the technological talent, but that was simply not enough; personal computing is a consumer market and Xerox's reservoir of market instincts was for commercial enterprises. Steve Jobs knew the consumer market. Similarly, Cisco was forced to close down its Flip video and HP pulled out of the tablet market — both retreated from consumer markets back to their core markets.

Process innovation also requires getting close to the customers. To be able to innovate work processes, you must go to the work. 'Go to the Gemba (or work place),' is the Toyota mantra. Asking customers what they need or want is simply not going to be enough. They cannot innovate for you — you must go and watch them use your product to really understand the market. You must go and watch the work flow in order to understand the processes and the problems that workers grapple with. You must see for yourself in order to envision a better product or process.

In It's Not Luck, Eliyahu Goldratt makes a case that a company can grow its market share and profitability simply by better understanding the market. Having the deep insight into market needs enables organizations to customize offerings and convert constraints into opportunity.

Imagine Perfection

Last but not least, to foster process innovation summon the courage to acknowledge the deep areas of waste that are part of our standard work. We all have this: inspection or rework or moving or waiting that is so intrinsically a part of the way we work that we cannot envision the work without it. Because we cannot immediately think of any possible alternatives, we look the other way and thus we cannot innovate.

Summon the courage to put that waste on the table, calling it what it is. We have seen remarkable feats of innovation inspired by this simple act — recognizing waste for what it is. Go ahead and imagine the process without the steps that add no real value — that just compensate for a flaw somewhere in the process — and then take the time to search for ways to get to that vision. Imagine perfection.

Leading an Innovative Culture

Given the challenges of creating a consistently effective innovative organization, nothing is more important than leadership. And this is perhaps the greatest irony: it requires powerful leadership skills to empower and unleash an organization's creative talents and energy. In an organization without strong leadership, inspiring and empowering people to contribute their ideas innovations will be scarce. An innovative culture is not the default position — it must be carefully created.

But empowerment, important as that is, is nowhere near enough. Leadership must also create a challenging vision around which to rally the organization's creative energies. This vision must be grounded in a deep understanding of the market and of the daily struggles of the people who make up that market. Understanding the market is much easier for a small company where everyone deals with real customer needs every day. But as organizations grow, they expand like a balloon — more mass and less surface area. The surface area has the chance to get close to the external customer's needs. As a company grows, leadership must maintain or create a mechanism that will ensure that an understanding of the customer's needs can penetrate beyond the surface area into the heart of the organization. The same is true of internal functions that work together like a chain of customers. As organizations grow, departments grow and they too develop 'more mass and less surface area' — creating the familiar silo phenomenon.

And thirdly, leadership of innovative organizations must, without stifling creativity, challenge the organization's efforts with the necessary, market-driven constraints. Without the right constraints, empowerment cannot succeed. It is too easy to become satisfied with a creative idea before it has been developed into something really workable. An organization that tries to empower innovation without creating the right market-driven constraints, can easily suffocate in an avalanche of incomplete or impractical ideas. Because they are not fully developed to address the real, but perhaps unspecified, constraints, the ideas cannot be implemented and quite soon people cease to feel empowered.

This is a tall order, and it becomes easy to see why innovation isn't easier to come by despite all the human talent and energy brought to bear. But creating an innovative culture is, in itself, a creative challenge. By increasing our understanding of the challenges and constraints, we increase our ability to focus our own leadership talents on the right things to make it happen.