

CHANGE LEADERS: CREATING RESILIENCE IN UNCERTAIN TIMES

by Kathleen Allen

I'm not sure I completely understood what I was facing three years ago when I cleared security and was escorted to my first meeting with management. I was about to enter the world of top secret projects where the government was the primary customer. I had been asked to take on the task of helping the CEO of a large engineering firm bring more entrepreneurial thinking to the company as it began to explore new opportunities in the commercial world in an effort to offset the downturn in government contracts. Having worked with scientists and engineers for many years, helping them successfully bring their new technologies to market, I was optimistic that I could do the same thing inside this company.

It was 2008, and the financial crisis was going full throttle, yet there was no sense at the time that we were seeing the end of a relatively stable and predictable business cycle. For decades, business leaders had been able to do five-year strategic planning and be assured that in those five years nothing would deviate from what had been predicted to the detriment of the company. I had no idea at the time that my real contribution would not be the number of technologies we commercialized but rather the way the company managed to get on a path to becoming a resilient organization capable of withstanding and proactively dealing with uncertainty.

My experience over three years as the “entrepreneur-in-residence” at the company has given me a new perspective on leadership in times of uncertainty. The approach presented

here is research based as well as practice driven, and it can be applied in any business or industry. Although the primary example is that of a government contractor, it is readily adaptable by leaders who seek to withstand the impact of unpredictable events.

The Unpredictability of Uncertainty

Before delving into the challenges this traditional engineering firm faced on the path to becoming a resilient organization, it is useful to address the issue of uncertainty. All indicators point to the fact that we are in a protracted period of uncertainty that may become the new norm for businesses. Global interconnectedness and the power of social networks and the technologies that support them ensure that the events that affect one nation likely affect every other nation. Like the proverbial butterfly that flaps its wings in the Brazilian rainforest and produces storms in Europe, seemingly minor actions thousands of miles away can create chaos for any company. The fast-changing external environment, which we can't control, is making it increasingly difficult to plan with any degree of certainty. Moreover, the frequency of events coming out of the blue, such as September 11, 2001—and some would argue the financial crisis of 2008—adds yet another layer of complexity to business planning.

In his ground-breaking book *The Black Swan: The Impact of the Highly Improbable*, Nassim Nicholas Taleb discusses unpredictable, rare events with enormous impact. Taleb's "black swans" happen because we don't really know the business world as well as we think we do, so we often perceive patterns and trends that turn out to be false. If we've invested company resources in plans associated with those false patterns, we put our company at great risk. With uncertainty, we cannot know in advance the potential results of a decision we've made, and we have no historical pattern on which to base a prediction or assign a probability.

The unpredictability of uncertainty is particularly troublesome for engineering and science-based companies because they are accustomed to calculating risk and acting on those calculations with a high degree of confidence. What this means for business leaders

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today is that they must immediately take steps to make their organizations more flexible and resilient to the shockwaves of uncertainty, and to do that requires a new way of thinking.

Start with Reality

My first few meetings with management were designed to give me a taste of the culture of the company. When you're attempting to redesign an organization, diversify, or take the organization in a new direction, it may seem counterintuitive to spend time examining the company as it is now rather than immediately imagining the company as you would like it to be. Actually, quite the opposite is true. Seriously dealing with reality enabled us to identify what *could* change and what might have to be handled as a workaround for a while.

The context for this company's reality was government contracting, which meant that the company bid on competitive contracts and built to well-defined specifications. Every hour of the day had to be accounted for, and the vast majority of employees were I-shaped—that is, they had deep knowledge in a fairly narrow area where they spent all their time. The company structure was rigid and bureaucratic, much like other large companies. Management and employees took their work very seriously and their pride was reflected in the fact that the company had not experienced failure with any of its products. Of course, the consequence of not fail-

ing was that the company was challenged by its own inertia of success. I recall someone saying to me early on, “Keep in mind that everyone thinks they’re the smartest person in the room.” They were engineers; they could do anything. Nevertheless, because their work was so difficult and demanding, they had a tendency to dismiss business as an easy discipline; therefore, they couldn’t see the commercial world as opening up a new set of challenges they might not understand.

On the positive side, the company was fortunate to have a CEO with entrepreneurial skills who was dedicated to ensuring the sustainability of the company and making the needed changes to adapt to the uncertainty in the industry. That didn’t make him popular among those who didn’t see the need for change, but it made him a hero to the younger employees, who viewed engineering much differently from their older counterparts. The CEO believed that relying solely on government contracts was a recipe for disaster; it was time to pivot, to change the business model and take their strengths in technology and significant talent into new industries in the commercial world. He knew instinctively that the tremendous success streak could end at any time. If the company was not positioned to sense and respond quickly to the unavoidable changes that were bound to come its way, it might not be able to sustain itself or continue to be successful. The company structure and its people had to be resilient.

The Goal: A Resilient Organization

What does it mean to be a resilient organization? From research we find that it is the ability to anticipate and resist or adapt to unpredictable events of enormous impact. In short, a resilient organization will thrive in both good times and bad. Interestingly enough, a firm’s resilience is a direct function of the organizational structure it has in place before an unpredictable event occurs. It is, in fact, much easier for leaders to adjust their thinking and priorities in the face of a disruptive event than it is for the organization as a whole to respond appropriately or successfully recover from the crisis. Organizational structure and its associated policies are key predictors of resilience. For this reason,

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much of the literature on resilience is about operational issues.

What I discovered in my work inside this company, and other companies as well, was that in times of great uncertainty an organization that is making a major cultural shift must incorporate three elements to maximize its chances of success:

- Employ a design thinking approach to problem solving.
- Develop structural resilience before strategy.
- Create options to reduce the impact of uncertainty.

Employ a Design-Thinking Approach to Problem Solving

It is a fact that left-brained thinking has been the dominant mode in both engineering and business for a long time. While linear, analytical thinking works quite well in predictable environments, it is not well suited to dealing with unpredictable events. Over the past few years the design-thinking movement has begun to pick up steam, finally coming into its own in these turbulent times. More suited to uncertainty, design thinking is right-brained and conceptual, and it embraces the fundamental tenet of paradox. The idea of embracing paradox is probably foreign to most business leaders because it essentially requires them to permit more than one reality to exist at a time. This was the dilemma the CEO faced. While developing a new portion of the business that would take on very different types of proj-

ects with commercial customers, he also had to maintain intact the original government contracting culture, which for now represented the core business model and the biggest source of revenues. This was no easy task because the overall structure of the organization was aligned with government processes, not with the speed and agility required by commercial markets. Furthermore, the company's product development timelines were far longer than the commercial world normally tolerates. By contrast, design thinking is based on deep empathy with the customer, and commercial customers are used to relatively fast response times from their partners and suppliers.

Management ultimately realized that to win in the long run they had to allow for two realities to coexist in the same company, at least in the short run. Everyone agreed to this in principle—but the implementation was difficult because the CEO quickly determined that he didn't necessarily have all the right people on board to master the commercial world. What he needed were more T-shaped people, people who had depth in a specific area but also had knowledge and experience across a breadth of areas, particularly business and markets. A group of T-shaped leaders would have a common language but different expertise in all the major technological areas in the company. They would serve as the core group of change agents who would begin the long process of refitting the company for a new age. Allowing for paradox means that one reality does not exclude the other. However, enabling that possibility has significant ramifications for the structure and leadership of the organization.

Create Structural Resilience Before Strategy

The management team had spent a lot of time crafting a strategy for how they were going to innovate and reach their goals in the commercial market. However, when it came to implementing the strategy, they were quickly challenged by the lack of flexibility in their organizational structure. Simple things like securing purchase orders for materials and conducting market research in the field became stumbling blocks. The company's layered corporate approval structure

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slowed development and frustrated engineers who were trying to work with customer needs. Moreover, because management was essentially borrowing people from core programs to work part time on the new initiatives, employees weren't sure where to place their priorities.

If a company does not have structural resilience, when the unpredictable happens (and that could be a negative event like the unrest in the Middle East or something positive like a new opportunity) it will not be able to respond quickly and effectively without sacrificing its core business. Strategic decision making under uncertainty cannot be effective without a resilient organizational structure. Resilience keeps the organization moving forward while strategists attempt to figure out where it should go. And this is no small challenge, because in today's environment, the world may change in the time it takes to go through a major strategic planning process. How many companies were caught off guard by the financial crisis of 2008 and were no longer able to implement the strategies they had developed?

Create Options to Reduce the Impact of Uncertainty

One important way to integrate resilience into the organizational structure is to take an options approach, which is simply a way to reduce the risk of decision making through a series of small experiments to test

the waters. In uncertain times, one thing we know for certain is that the outcome of a decision cannot be known in advance. If an organization has put in place policies and a structure that enable faster opportunity decisions and equally quick abandonment decisions, it will do a more effective job of managing and allocating its resources in uncertain times. Unfortunately, many companies suffer from the inability to abandon an effort quickly and at an early stage. They tend to hold their options open indefinitely, hoping to gather more information in a failing effort to reduce uncertainty. We call this *escalating commitment to a failing course of action*. Lack of an abandonment policy drains the company's resources at a time when it can least afford the loss.

One way that the CEO created options was by first testing the level of interest on the part of employees to be part of a cultural shift to a more entrepreneurial view. We conducted workshops that put employees into the new mindset and let them experience the skills required to identify a new market opportunity, get out in the field with customers, and build a business case to present to management. We structured the experience with abandonment options so that if a particular opportunity had reached a point where it was clear that it couldn't meet the company's requirements or there wasn't a big enough market, the team would abandon it and join another team to lend their support and continue to learn. Similarly, if a new opportunity emerged during the process, the team could abandon the less promising idea for the new one without consideration for sunk costs.

Through this process, we quickly spotted the emerging leaders in the company—the individuals who had the right mindset to be on this new innovation team, and who were self-motivated enough to take a risk. This approach enabled management to begin to form the core team for the new initiatives and to identify the gaps that would require some new hires.

The Path to a Resilient Organization

It is not an easy task to turn a rigid, bureaucratic organization into a resilient one that can thrive under un-

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certainty. Unfortunately, many organizations today are faced with the immediate problem of how to integrate flexibility into their existing structure. My experience dealing with companies of all sizes tells me that it's possible, but it takes top-down commitment and a leader who can take a design-thinking approach to looking at the organization. The path to a resilient organization is long, and it must include all of the following steps if the company is to achieve its goal:

- Understand the current reality: Where are the opportunities for flexibility and where are the structural barriers?
- Remove the structural barriers and integrate flexibility into the structure.
- Design the future: What will this resilient organization look like?
- Get T-shaped people on board: You need design thinkers who use their right-brained capabilities for problem solving.
- Take an options approach: Design small experiments to reduce uncertainty and incorporate abandonment options for flexibility.
- Be vigilant: Monitor the organization for sources of rigidity and inflexibility.

The CEO and his team have made enormous progress in moving the company toward resilience. In an established organization, it's the embedded structure that usually prevents the achievement of true resilience. If the structural barriers can be removed early on, it will create the resilience needed to respond effectively to uncertainty.



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