“In unprecedented situations, effective leadership calls for a problem-solving, experimental approach. We should think of everything we’re doing as our current experiment.”

Herman “Dutch” Leonard
George F. Baker, Jr. Professor of Public Management, Eliot I. Snider And Family Professor of Business Administration

The Critical Role of Leadership in Building a Culture of Experimentation

Harvard Business School (HBS) Professor Herman “Dutch” Leonard recently commented on leadership in times of crisis: “In unprecedented situations, effective leadership calls for a problem-solving, experimental approach. We should think of everything we’re doing as our current experiment.”

Crises are by definition novel and, as Leonard says, unprecedented. This means leaders can’t apply any of their standard playbooks. Nor can they let experience be their guide. Since leaders can’t know what to do in such circumstances, they must experiment to find solutions.
As much as one would like to assume that experimenting and “letting the facts decide” would be part of any organization’s standard operating procedure, that’s often not the case. This is a missed opportunity, because an experimentation mindset is a clear driver of improved business performance.

Consider this: When Harvard Business School’s Baker Research Services compared the stock performance of companies with a strong experimentation infrastructure and culture—Amazon, Etsy, Facebook, Google, Microsoft, and Booking Holdings—against the performance of the S&P 500 over the past 10 years, they discovered that these “experimentation organizations” consistently and significantly outperformed the S&P.

HBS Professor Stefan Thomke has been studying these organizations for over a decade. In his recent book, *Experimentation Works: The Surprising Power of Business Experiments*, he asks the question, “Given the demonstrable value that experimentation can generate, why aren’t more companies adopting and cultivating an experimentation-centric culture?”

In unprecedented situations, developing an experimentation culture is no longer optional; it is imperative. In this Executive Insights paper, we will describe what a culture of experimentation looks like, the challenges that leaders face in building such a culture, and practical steps business leaders can take to overcome these challenges.

**WHAT IS AN EXPERIMENTATION CULTURE?**

Experimentation is the lifeblood of innovation. When a business has an experimentation culture, it deliberately and continuously innovates by systematically testing new ideas and gauging their effects. Big data and new technology platforms now allow for experimentation on an unprecedented scale and in every aspect of the business. The insights and data gleaned from these ongoing experiments lead to incremental changes that cumulatively result in significant business advantages.

Having an experimentation culture that successfully drives superior performance is increasingly necessary to staying competitive. However, implementing and sustaining such a culture require a new way of thinking and a reimagining of what it means to be a successful leader.
ATTRIBUTES OF AN EXPERIMENTATION CULTURE

Professor Thomke writes, “To successfully innovate, companies need to build a culture that invites experiments at large scale, even when budgets are tight.” He identifies seven attributes characteristic of such cultures:

1. **A learning mindset**
   To realize true value from experimentation, organizations need to view experimentation as a continuous process and accept that very few experiments will yield earth-shattering results.

2. **Rewards are consistent with values and objectives**
   A company must be willing to reward experimentation regardless of the outcome. At the same time, the organization also must align incentives with work objectives. When employee compensation depends on performance metrics that make experimentation difficult, experimentation culture cannot flourish.

3. **Humility**
   The role of leadership is very different in an experimentation organization. Instead of gathering information and making top-down decisions, leadership facilitates the process of decision-making through experimentation. The results of experiments must be accepted over opinions and bias, even if those opinions come from senior leadership.

4. **Experiments have integrity**
   An experimentation culture must create and rely on strict ethical guidelines for experiment design and practice. Leading experimental organizations often include ethical guidelines with case studies as part of their standard employee training.

5. **The tools are trusted**
   Tools are only effective if they are trusted. Organizations must proactively manage their tools, ensuring people know how to use them and, more importantly, trust the results they yield.

6. **Exploration and exploitation are balanced**
   The tension between exploration (creating value through innovation) and exploitation (capturing value through operations) is at the heart of running a successful business. Senior management must work diligently to find the right balance between the two.

7. **The ability to embrace a new leadership style**
   Companies tend to become less innovative as they grow larger, often as the distance between upper and lower management increases. Senior leadership must actively promote innovation and experimentation for them to take root and flourish.
FROM AWARENESS TO EMBEDDEDNESS: THE EXPERIMENTATION MATURITY MODEL

Creating an experimentation culture calls for a leadership style that is adaptable rather than authoritarian. This leadership style also emphasizes letting the data decide. Adopting such a style requires humility, self-awareness, and belief in the power of experimentation. As Thomke reminds leaders, “In a true experimentation organization, even the boss’s assumptions are subject to real-world tests.”

Thomke and his colleagues have identified five distinct stages of maturity an organization goes through as it develops an experimentation culture:

1. **Awareness**
   Management understands that experimentation matters to innovation, but there are not yet any processes, frameworks, or tools for facilitating it. Trial and error is still the predominant method of decision-making; initiatives are largely based on experience, intuition, and observation.

2. **Belief**
   Leadership accepts that a more disciplined approach to establishing cause and effect is needed, and begins adopting tools and creating specialized groups to focus on experimentation. At this stage, the impact on decision-making is still minimal.

3. **Commitment**
   Leadership commits to making experimentation core to how the company operates, devoting more resources to it and building it into company processes. Some decisions and product roadmaps now require data from experiments, and the impact of experimentation on business outcomes becomes measurable.

4. **Diffusion**
   Leadership realizes that large-scale experimentation is necessary for superior business performance and rolls out formal standards for experimentation across the organization. This is supported with tools and training.

5. **Embeddedness**
   Experimentation is a fully adopted discipline and becomes deeply rooted and democratized across the organization. Teams and people are empowered and incentivized to design and run their own experiments.

The thread tying these stages together is the scientific method itself: the process of formulating a hypothesis, testing it, and iterating. Moving through the maturity stages should be driven by this experimental method, with critical steps in the rollout and adoption process subject to testing and experiment.
THE EXPERIMENTATION IMPERATIVE

Making experimentation a core organizational capability requires transforming the organizational culture. Business leaders have a number of tools at their disposal to bring about this transformation. But what they need more than anything is to accept that the organization’s ability to adapt and survive depends on it.

Experimentation is key to navigating the sometimes cataclysmic changes that business leaders face today. It is the only way to identify new paths forward and create a sense of certainty based on data. As more and more companies adopt and cultivate this approach, an experimentation culture will become table stakes for succeeding in any industry.