

NANO TOOLS FOR LEADERS®

MAKE BETTER DECISIONS UNDER UNCERTAINTY: TAKING CHARGE OF CHANCE

Nano Tools for Leaders® are fast, effective leadership tools that you can learn and start using in less than 15 minutes — with the potential to significantly impact your success as a leader and the engagement and productivity of the people you lead.

Contributors: B. Cade Massey, PhD, Practice Professor, Operations and Information Management, The Wharton School

THE GOAL:

Improve your success rate on risky decisions by accepting uncertainty and adapting your decisions to the “logic of chance.”

NANO TOOL:

“Uncertainty is an uncomfortable position. But certainty is an absurd one.”

—Voltaire

Most leaders believe their environment is more like a math problem than a lottery. Gather enough data, understand the formula, study how it’s been done before, and you get the right answer. The reality is, though, that leadership requires constant judgment under uncertainty. Whenever we estimate the timing and cost of a project, decide to merge with or acquire another company, or choose an investment vehicle, we need to factor in the role of chance: there are some variables we just can’t account for.

Why, then, do we neglect chance, or pretend it’s not there? Most people simply don’t believe they can do anything about it. But they’re wrong. There is, in fact, a lot we can — and should — do.

Start by acknowledging that there will almost always be some degree of uncertainty, however psychologically difficult that is to accept. Those who don’t acknowledge this reality believe every decision requires lots of data, including information about how the issue at hand was handled in the past. That approach can lead to overconfidence and can often miss important risk-management opportunities. Many situations instead call for another kind of logic: the logic of chance. This logic recognizes that there is no one “knowable” answer. When you adapt your decisions to the logic of chance, they will improve. Below are five active strategies to help you make that adaptation.

ACTION STEPS:

- 1. Acknowledge uncertainty.** This step is a constant, and grows in importance the higher the level of uncertainty you are facing (keeping in mind that it is always higher than you think). As author and investment advisor Nassim Taleb said, “My lesson from [George] Soros is to start every meeting at my trading boutique by convincing everyone that we are a bunch of idiots who know nothing and are mistake prone, but happen to be endowed with the rare privilege of knowing it.”



2. **Consider more options.** In his book *The Wisdom of Crowds*, James Surowiecki reveals that the average of a large number of forecasts reliably outperforms the average individual forecast. Widening your scope can increase the odds of making a better decision. You can do this by involving others to get multiple perspectives, and allowing debate and dissent.
3. **Take more chances.** Expand the probability that one option will be right. A study of 8,526 potential National Football League draft picks over a 14-year period found “overwhelming evidence” that teams that traded away one high pick to receive two lesser ones did better in terms of player performance in ensuing years. For new product development, which is expensive and has about a 20 percent success rate, crowdsource ideas. You’ll have better odds of success than if you look only internally for ideas and idea acceptance.
4. **Expect to be wrong.** Even the world’s best stock pickers are wrong more than 40 percent of the time. If you are consistently playing it safe to avoid making errors, you are missing powerful potential opportunities. Instead, build in room for error while working to downplay its effects. One way to do that is to manage as a coach instead of a judge. Consider venture capitalists, who are well aware of the 75 percent or higher failure rate of the companies they invest in, so they don’t just select companies — they help manage them.
5. **Learn.** Take an active role in assessing what works and what doesn’t by experimenting. For example, no one knew what reward structure maximized customers’ time and “investment” on slot machines, although the industry’s conventional wisdom held that gamblers would not tolerate any change in payouts. Harrah’s Casinos then-COO Gary Loveman decided to challenge that premise and starting running experiments, which proved it false — and improved the company’s profits and stock price. Making small experiments can definitely improve your odds of success. See the Nano Tool “[Adaptive Experimentation](#)” for ideas.

HOW LEADERS USE IT:

- Since at least 3000 BCE, sea-bound merchants and militaries have responded to uncertainties such as weather by spreading their resources across multiple, smaller vessels rather than in one larger boat, minimizing the chance of catastrophic loss.
- Acknowledging that most professional managers fail to outperform market indexes, and those who do so rarely repeat their success, Vanguard launched the first (Index 500) fund, Vanguard Index Trust, in 1975. Today, index funds receive three times the investment dollars than actively managed funds do, and they continue to outperform them.
- When Laszlo Bock, Google’s senior vice president of “people operations,” studied employees’ performance and compared it to how the same employees scored in interviews, he found no correlation. Calling their hiring practices “a complete waste of time” that served “primarily to make the interviewer feel smart,” they changed the process. For example, the number of interviews with each candidate dropped from 25 to four, and requests for SAT scores and college transcripts were stopped. By challenging and testing established practices, they began to make better hires.
- Professional gamblers acknowledge that their success is due in some part to the cards they are dealt. To mitigate the luck of the draw, they buy shares in each others’ performance to diversify.

ADDITIONAL RESOURCES:

- “The Loser’s Curse: Decision-Making & Market Efficiency in the National Football League Draft,” Cade Massey and Richard H. Thaler (*Management Science*, Vol. 59, Issue 7, 2013). Analyzes the decision-making of National Football League teams during their annual player draft, finding that top draft picks are significantly overvalued in a manner that is inconsistent with rational expectations and efficient markets.
- *The Success Equation: Untangling Skill and Luck in Business, Sports, and Investing*, Michael J. Mauboussin (Harvard Business Review Press, 2012). Provides a structure for analyzing the relative importance of skill and luck, and offers concrete suggestions for making these insights work for better decision-making.
- *The Signal and the Noise: Why So Many Predictions Fail — but Some Don’t*, Nate Silver (Penguin Press, HC, 2012). Reveals how predictions can improve when we appreciate uncertainty and check overconfidence.
- Cade Massey teaches in Wharton’s [Executive Negotiation Workshop: Bargaining for Advantage@](#) and [The Strategic Decision-Making Mindset](#).

ABOUT NANO TOOLS:

Nano Tools for Leaders® was conceived and developed by Deb Giffen, MCC, Director of Innovative Learning Solutions at Wharton Executive Education. It is jointly sponsored by Wharton Executive Education and Wharton’s Center for Leadership and Change Management, Wharton Professor of Management Michael Useem, Director. Nano Tools Academic Director is Professor John Paul MacDuffie, Professor of Management at the Wharton School and Director of the Program on Vehicle and Mobility Innovation (PVMII) at Wharton’s Mack Institute for Innovation Management.

Wharton@Work