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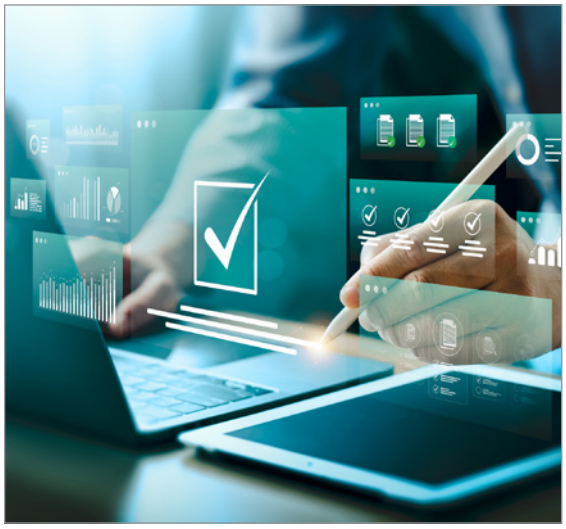
NANO TOOLS FOR LEADERS®

DATA-FIRST LEADERSHIP: A CHECKLIST FOR THE AGE OF AI

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.



GOAL

Build the leadership capability to move fluidly between commercial judgment and data-driven learning, and deploy that capability to shape priorities, decisions, and investment.

NANO TOOL

We are living through a major shift in how firms use information to compete. Machines now augment human intelligence, enabling faster experimentation and sharper decisions. This convergence of human insight and machine capability is redefining how organizations create value—and rewarding those who can integrate both into a single system of learning and growth.

Becoming a *data-first leader* means knowing how to translate data into business value. It's the executive equivalent of pairing an Hermès tie with a Uniqlo hoodie—moving fluidly between commercial judgment and analytical rigor, and grounding technical possibilities in a clear understanding of how people and organizations behave.

ACTION STEPS

1. **Inventory Your Data as a Strategic Asset, Not an Afterthought.**
   Data may not show up on the balance sheet, but it can drive real value—or risk. Establish a routine process to inventory your data, verify its quality, and standardize definitions. When everyone works from the same facts, you prevent time-wasting debates over the numbers and keep decision making focused on the real issues.

2. **Start with a Commercial Statistical Mindset.**
   AI can be described as statistics at scale. Treat key business drivers as distributions, not fixed numbers, and ask how conclusions were tested before acting on them. Make statistical reasoning a standard part of strategic discussions, not a technical afterthought.

3. **Lead with a Hypothesis Orientation.**
   Augment gut instinct and static forecasts with testable hypotheses. Ask "What truly drives our growth?"—and use granular, transaction-level data to prove or disprove it. Move from guesswork to validated insight: In *God we trust—everyone else brings data.*

4. **Map Your Data Flows Like a Process Engineer.**
   As Eliyahu Goldratt taught manufacturing leaders in *The Goal* to find their "Herbies," find the bottlenecks in your data flow. Connect business processes, technical architecture, and data processes into one integrated picture. Streamlining this flow accelerates both scale and insight.

5. **Integrate Data, Software, and Services into One Value Engine.**
   Just as Lou Gerstner once redefined IBM's value as *software + services = business value*, today's formula is *data + software + services = business value*. Ensure these three elements operate as one coherent process, not competing silos.

6. **Foster a Culture of "Test-Experiment-Learn."**
   AI models improve with iterative results. Foster curiosity, testing, and learning across every level of the organization. Encourage experimentation through "what-if" statistical simulations, iterating thousands of offers, channels, or pricing models to discover what truly drives outcomes.

7. **Balance the Artist and the Scientist.**
   Data-first leadership is not only analytical, it's also creative. Ask questions, tell stories, and exercise judgment. Blend quantitative precision with the humanistic skills that turn information into meaning and actionable outcomes.

8. **Build Historical Context into AI Decisions.**
   Schedule periodic briefings (internal or external) that walk your leadership team through prior waves of enterprise innovation—what drove adoption, what bottlenecked progress, and what differentiated winners. Use those patterns to make better calls about where AI investments will produce value.

9. **Turn Data into Story and Story into Strategy.**
   Data alone doesn't lead; stories do. Use analytics to craft narratives that inspire action and align stakeholders. When data becomes narrative, it becomes strategy, and the CEO becomes both storyteller and scientist. Think like an *investor* (who financially re-engineers balance sheets), an *operator* (who impacts P&L drivers), and a *technologist* (who builds systems to liberate insights from raw data). Together, these perspectives create data fluency at the top. *Remember:* not every AI initiative ticks and ties to an ROI. Some elements, just like electricity, need to be treated as cost of doing business.

10. **Bring Your People Along on the Journey.**
    Your employees are nervous about their jobs. You are asking them to input their human knowledge and domain into an AI agent that could displace their work. Help them to see this as an opportunity to move up the critical-thinking value chain, and to let go of rote, mundane tasks.

HOW AN ORGANIZATION USED IT

A newly appointed CEO of a private equity-backed software company found sales and marketing working in silos with no shared data. To shift the growth trajectory, he launched a data-first effort to unify and analyze the customer base. Data Engineering consolidated 28 million historical records from legacy systems, and machine-learning models were used to de-duplicate accounts and rebuild accurate customer hierarchies. Sales and Finance then validated the results to ensure the new data matched operational reality and official financials.

With a single, trusted dataset in place, the team could finally see where the real opportunities were. The analysis uncovered $1.1 billion in potential cross-sell revenue over two years, including $788 million that could be pursued right away, plus $52 million in possible product upgrades. Most of this value was concentrated in just the top 20 percent of customer-product pairs. A predictive scoring model, applied across 70,000 customers, then helped sharpen both sales targeting and retention efforts—especially for the $71 million in annual revenue at risk of churn.

By aligning decisions around shared, trusted data, the CEO and CRO were able to realign teams and direct effort where it mattered most—turning fragmented information into coordinated, high-leverage growth.

CONTRIBUTOR TO THIS NANO TOOL

Sajjad Jaffer, WG'01, is on the Advisory Board of the Wharton AI and Analytics Initiative. He is co-founder of Two Six Capital, the Silicon Valley firm that pioneered data science for private equity, based on 25 years of PhD research developed by Wharton professors Eric Bradlow and Peter Fader. The firm's data-science platform was applied to over $30B of global private equity deals that closed, analyzing over $160B of granular receipt-level data.

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, 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 (PVMI) at Wharton's Mack Institute for Innovation Management.