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.

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THE GOAL:
Understand the “big picture” of data analytics and how to cash in on the data your organization already has.

NANO TOOL:
According to McKinsey, organizations that leverage the behavioral insights that their data reveals about customers outperform peers by 85 percent in sales growth and over 25 percent in gross margin. Most companies seem to be aware of this advantage: spending on marketing analytics is forecasted to increase 198 percent in three years. But although they are collecting reams of data about their customers, few companies are turning that data into actionable, value-adding strategies. Gartner’s 2018 Marketing Analytics Survey found that even companies with sizeable marketing analytics teams still aren’t getting what they could from their data. Marketing analysts, according to the survey, spend most of their time on data wrangling.

The good news is you don’t necessarily need technical expertise to benefit from customer analytics. To get the most from customer analytics, business leaders need to understand it from a big-picture perspective (the answer to the “so what”) rather than turning over the entire analytics operations to a siloed or outsourced team. The four action steps detailed below can help you guide your analytics team to turn data-driven results into actionable insights for your team.

ACTION STEPS:

1. **Always start with the business question.** What business decisions do you have to make that would be easier, faster, or more effective with analytics? This should be the critical building block for any analytics that you will pursue. While this first step appears straightforward, it is easy to be swayed by large amounts of data you may have and not see the forest for the trees. A large part of the success of any analytics project rests on the initial problem description and its framing.

2. **Develop a hypothesis.** Once you home in on a business decision that you have to make, translate it into a testable hypothesis (see “How One Leader Uses It” below for an example). Next, determine whether you have the right kind(s) of data to help you test your hypothesis. This step involves taking a critical, proactive view of what data you are already collecting and what data you may additionally need.
3. **Consider starting simple.** The latest machine-learning algorithm is good for some organizations, but might not be what you need. A good starting point is usually simple regression models that are easy to interpret. And don’t fall into the money trap; software for even the most complex analytics has become affordable and easily available.

4. **Hire the right people.** Resources may not be a barrier, but expertise can certainly be. Harnessing your data takes both data engineers, who can collect and manipulate large amounts of data, and data scientists, who analyze the data. To get truly actionable data-driven insights, though, you may need someone who can translate the results through the perspective of your firm’s decision makers. These so-called “translators” connect the technical expertise of your data scientists with the operational side of your business. Translators can also help managers with steps one and two listed above, creating a continuous analytics loop: their role is to generate insights, apply them, and help to determine what additional data and analyses would be beneficial.

**Continuous Analytics Loop**

![Continuous Analytics Loop Diagram]

Leaders who follow the four action steps above — and ensure that someone plays the role of translator to create a Continuous Analytics Loop — are more likely to extract insights and value from their customer data.

**HOW ONE LEADER USES IT:**

Crystal Bray, senior data scientist at Tailored Brands, attended Wharton's [Analytics for Strategic Growth: AI, Smart Data, and Customer Insights](https://www.wharton.upenn.edu/executive/programs/analytics) Executive Education program and began applying the four action steps immediately. The business question she and her team posed was, “How do we effectively manage and monitor our advertising expense?” Their intuition was that expected sales attributed to digital marketing should be greater than that for broadcast television.

Bray says they had data on some media channels, but the marketing media mix model they use requires two to three years of data, which is not available for newer channels such as Facebook. Instead, she conducted research using control and test groups to get return on investment (ROI) rates for advertising buys on those channels. “Based on one test, we could say the average ROI was 300 percent. That might not always be true, but at least we have a number we can start with.”

They used a multiple linear regression model, which she describes as a basic data science model that is easy to use. “There’s a challenge in trying to use something more complex, because if they don’t understand it, they’re hesitant to use it. With our model, we plug in a few linear variables and check the outputs — it’s easy to explain.”

The fourth action step is a work in progress, due in part to a change in senior leadership in the organization, including a new head of analytics and strategy. “The timing has to be right for hiring,” says Bray. “You have to have enough work for them to do that truly delivers value. They need to be solving business questions. But you also have to decide the kind of background you are looking for. You can hire a recently graduated data scientist, but that person will need development on the business side. Finding someone who can do translating from a data scientist to a business leader is also challenging. It’s not easy to find someone who was trained by an analytics translator. You have to look at their experience and determine the lessons they learned from other jobs.”
ADDITIONAL RESOURCES:

- “Separating Better Data from Big Data: Where Analytics Is Headed,” Knowledge@Wharton, May 10, 2018. Wharton marketing professors Eric Bradlow, Peter Fader, and Raghuram Iyengar discuss how the field has developed over time, and what they expect to be the key trends over the next decade. Bradlow and Fader are the founding directors of Wharton Customer Analytics. Bradlow is the current vice dean of Analytics at Wharton and Iyengar is the current director of Wharton Customer Analytics.

- Professor Iyengar directs and teaches in the Executive Education program *Analytics for Strategic Growth: AI, Smart Data, and Customer Insights*.

REFERENCES:

- “Capturing Value from Your Customer Data,” Brad Brown, Kumar Kanagasabai, Prashant Pant, and Gonçalo Serpa Pinto; March 2017.


ABOUT NANO TOOLS:

*Nano Tools for Leaders*® was conceived and developed by Deb Giffen, MCC, director of Custom Programs at Wharton Executive Education. *Nano Tools for Leaders*® is a collaboration between joint sponsors Wharton Executive Education and Wharton's Center for Leadership and Change Management. This collaboration is led by Professors Michael Useem and John Paul MacDuffie.