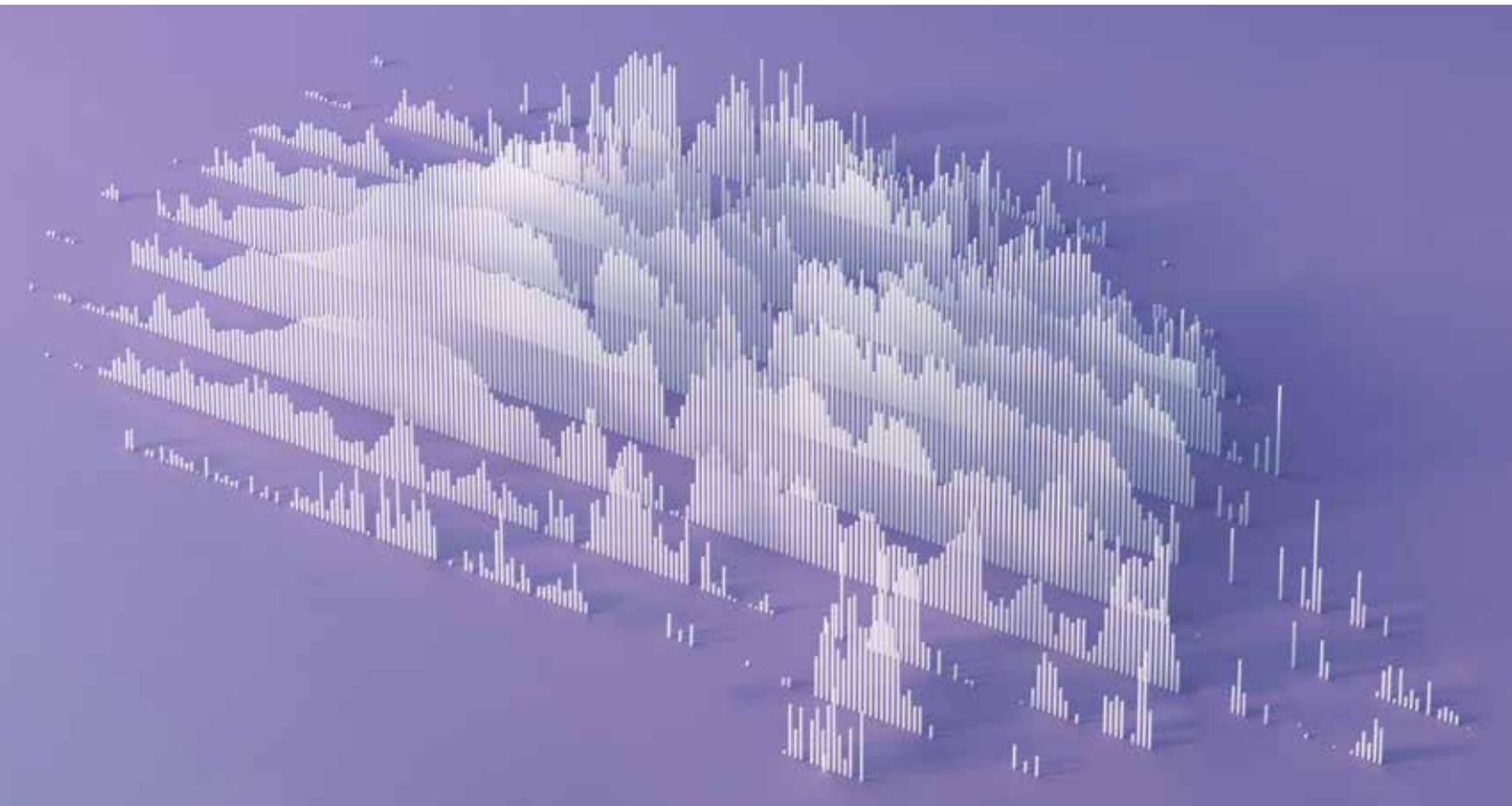# McKinsey & Company

Operations Practice

Building resilience through procurement analytics

New tools can help companies crisis-proof their supply chains. To implement the technology at scale, companies can focus on four key priorities.

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Managing supply chains can be tough for many organizations, whether because of too much organizational complexity, too little spending transparency, or too heavy a reliance on gut instinct—usually resulting from siloed data and manual processes. COVID-19 exacerbated these challenges, even as it made an even stronger case for the analytics-driven future that companies have sought to achieve for years.

The promise: by better using a company's own data, analytics can help organizations spend more intelligently and efficiently, improving their liquidity and cost position. It can increase transparency and speed, giving decision-makers crucial insights for determining when, where, and how to act. And in so doing, it can help organizations become more resilient.

Vulnerable supply chains, difficult solutions

In a recent webinar poll we conducted, procurement organizations reported seeing some improvement in their ability to react to disruptive events. When comparing COVID-19 to the global financial crisis of 2008–09, about half of organizations say they improved their spend visibility and were equipped to respond more effectively. Yet more than one-third saw only a slight improvement, and 16 percent, or nearly one in six companies, saw no improvement at all (Exhibit 1).

In an increasingly volatile business environment, that limited progress is not sufficient. Quite simply, too many of today's procurement and supply-chain functions are unnecessarily vulnerable. Yet companies can take substantial steps improve their ability to respond to internal and external obstacles—especially by staying more up to date with economic and technological developments that help create a stronger, more resilient organization.

Analytics, for example, is not a secret. But companies face challenges in trying to implement it at scale, primarily because procurement data can be inherently messy and fragmented. A given product's purchase order could be stored in the company's procure-to-pay system, while the invoice is stored in the financial system and the referring contract is stored in the customer-relationship management (CRM) system. When data are stranded in siloes such as these, companies cannot create a single source of truth.

Exhibit 1

Only 50 percent of procurement professionals say their organizations performed better in 2020 than in 2008-09.

Not at all
16%
We were again taken by surprise

We have taken initial steps
35%
We made investments in analytics and capabilities, but there are gaps

Our response was better
41%
We improved spend visibility and now understand levers to react

Our response was significantly better
8%
We were able to anticipate challenges and react at speed

[1]N=165 procurement professionals; survey conducted in July-December 2020

Deep, category-level content and experience are also notoriously difficult for many companies to develop, retain, and share consistently. They have few benchmarks to work from, which means they cannot access potentially powerful demand and commercial levers to drive better terms. When teams do run analyses on specific product categories, that process is often manual and thus not scalable, leaving much of procurement's volume unmanaged. In this environment, automation is essential to manage large volumes of data and execute rote processes faster and with greater accuracy. But most procurement functions haven't applied automation at scale—yet.

Four actions for analytics in procurement

To make faster progress in using analytics to optimize procurement—and thus become more resilient in a time of immense disruptions and technological change—four actions are particularly important.

Look beyond spend data

For understandable reasons, procurement functions often focus almost exclusively on spend data. But those data give only a partial picture of what's happening. To generate true, actionable insights, it is crucial to develop a single source of truth that incorporates all sources of relevant data, along the entire supply chain, and from all relevant functions—including sales, finance, product development, R&D, and operations (Exhibit 2). When these sources are not linked to each other, executives are hard-pressed to form an accurate understanding of the entire data situation.

Making connections between these sources is a first step in generating value. A utility used this approach to consolidate procurement's enterprise-resource-planning (ERP) data along with general-ledger and cost-item data. The goal was to differentiate operational and capital expenditure and set a baseline for external spend. By consolidating procurement and financial data and creating a common taxonomy of procurement

Exhibit 2

Spend analytics harvests all relevant sources of data.

External environment
Types of data

Suppliers, service providers
Current and potential suppliers

Regulatory
Legal, financial, auditing, environmental, governance

Market and finance
Supplier finance, currencies, commodities

Design and technical standards
Reflecting latest changes

Spend analytics

Internal functions
Sources of data

Supply chain
Planning, manufacturing, warehousing, sales

Engineering and technology
R&D, product development

Support functions
Legal, finance, HR, compliance

Business strategy
Strategic planning, merger and acquisition teams

categories, the utility identified spending reductions of between 9 and 12 percent—all while maintaining strict regulatory standards across its operations.

Creating a full picture of risk, however, will mean bringing together even more data sources and integrating them even more deeply, reflecting more perspectives across the enterprise. Consider a chemical company that needs specific raw materials for its production processes. The company faces potential risks in the supply chain: export barriers in the material's source markets, environmental policies, geopolitical events, and other external shocks. The procurement function analyzes this problem through a very specific lens, typically boiling down to a three-part question: What is my risk exposure for this raw material, are the materials coming from a single source, and can I line up an alternate source?

But finance looks at the problem from a different view: what is the revenue at risk if the company can't access that material? Similarly, the production department looks at it through yet a different perspective: is there an alternative material that we can use?

By connecting finance, product development, and procurement data, companies can gain the transparency they need to understand their true risk exposure, and thus take the steps needed to increase operational and financial resilience.

Adopt an end-to-end view
It isn't just the data that need to reflect as many sources as possible. All too often, individual departments make decisions in a vacuum, based on their own budgets, KPIs, and department-specific criteria, leading to inconsistency at best and strategic errors at worst. Ideally, the decision-making process in procurement should also incorporate multiple perspectives, so that the company understands the full implications across the entire value chain.

For a simple example, think of time periods in payment terms. Companies often impose one standard time period for the payments they make

to their suppliers, and another—typically much shorter—for the payments they receive from their customers. That difference has financial and long-term relationship implications for executives to identify, quantify, and think through. By adopting an end-to-end view, companies can better understand both the buyer and supplier side, and potentially negotiate payment terms that better reflect the full value at stake.

Similarly, if the procurement department identifies a cost-savings opportunity, top-performing companies ensure that the entire organization is able to track progress and course-correct if needed. The objective is to ensure not only that the promised improvements actually occur, but also that they don't trigger negative ramifications elsewhere in the organization.

Change the organizational mind-set about benchmark data
In some organizations, employees have concerns about using data to improve procurement spending, worrying that applying benchmarks and quantifying performance will expose individuals to unfair consequences. That sort of resistance can undermine analytics initiatives right out of the gate.

To overcome these concerns, leaders can launch strong change-management practices that help shift mind-sets, for a culture in which data are seen as a powerful tool for helping people achieve better results, rather than for "naming and shaming" exercises. Well-designed communications reinforce that the company wants to generate objective information and benchmarks, shining a light on top performers so that their best practices can be codified and shared. The people who use these insights to make the most dramatic improvements in performance can become change agents whose stories help inspire the rest of the organization.

Add automation capabilities
Finally, procurement organizations have major opportunities to automate processes and analyses. The need to automate is growing in line with the volume and complexity of procurement data, which

are increasingly difficult to analyze manually in a way that leads to specific, actionable insights.

Because automation comes in different types, ranging from full analytics suites to digital assistants, companies will want to test options and tailor the right set of solutions for their needs. The critical common factor underlying most automation tools, however, is their ability to free employees from repetitive, routine tasks and processes. The most effective solutions can identify relevant data patterns and deviations from the expected, explain results and their impact, and even suggest measures to take in response. The very best can also assist in data visualization, synthesizing immense amounts of data and delivering insights to decision-makers in a clear, intuitive format.

One apparel company used spend-analytics automation to understand small-value orders. Most companies have a value threshold below which employees do not need to go through formal procurement channels and can instead place orders directly. But that pragmatic practice can encourage workarounds that undermine the policy's intent, such as large orders broken into smaller ones that are all below the threshold—the $25,000 purchase that is broken into five $5,000 purchases, each one well below the $10,000 threshold. Digital assistants can handle small orders and spot such patterns and discrepancies, and flag them for a human employee to address. In this way, they improve compliance and generate savings by bundling those orders and (re-) negotiating with suppliers.

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Procurement functions are growing more complex, and the business environment is becoming more volatile. As a result, procurement analytics can deliver real value by taming complexity, increasing transparency, and giving managers the insights they need to make better decisions. Through these measures, the procurement function—and the entire enterprise—can become much more resilient.

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