THE PROCUREMENT AND SUPPLY CHAIN IMPERATIVE

The future of systems thinking for industry leaders

Introduction

The strategic importance of the procurement and supply chain functions became abundantly clear during the COVID-19 pandemic. Suddenly, the ability to source essential items around the world was severely limited, with many tier 1 and tier 2 suppliers unavailable or difficult to reach. Entire business models transformed overnight as customer behaviors changed—in particular, as e-commerce exploded during country lockdowns. To maintain business as usual while meeting these changing needs, executives depended on robust data-sharing and collaboration within organizations and across business ecosystems, all underpinned by a skilled workforce capable of adapting on the fly.

These same characteristics are hallmarks of an approach to management sometimes called systems thinking—a strategy that focuses on understanding a broad range of interrelationships within and beyond the organizational firewall as elements of a unified entity. This systems-based approach is meant to enable dynamic, flexible operations that support a single, cohesive strategy.

> **Systems thinking is a way of seeing the entire web of relationships within and beyond the organizational firewall as a unified entity that operates smoothly, dynamically, and as part of a cohesive strategy.**

To gain greater insight into how the procurement and supply chain functions are practicing this management philosophy, Oxford Economics and SAP surveyed 3,000 business leaders—including over 200 procurement and 200 supply chain executives. Our findings show that the strongest procurement and supply chain organizations are built on streamlined, standardized business processes; enabled by the sharing of high-quality data and analysis; and buttressed by strong trading partner collaboration, increased visibility into spend, and highly skilled employees.

Another recent study conducted by SAP and Oxford Economics about procurement solutions reinforces the idea that practicing systems thinking leads to stronger business performance. This research shows that procurement executives who increase procurement-specific technology adoption, share data more fluidly both internally and with trading partners, and integrate processes with other functions, are better able to meet critical targets for sustainability, compliance, and efficiency.

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This type of collaboration is especially important for the procurement and supply chain functions: 79% of procurement executives say working with the supply chain function is critical to success, and 72% of supply chain executives say the same of the procurement function. In practice, though, this can be difficult to achieve. Procurement executives are more likely than other respondents, for example, to say that working with the supply chain function and within their own function is highly complex.

The prominence achieved by the procurement function during the pandemic will outlast the crisis. These executives have shown how critical they are to the day-to-day functioning of the business, in terms of making sure resources are where they need to be and adding overall business value. As executives look for competitive advantage in the new era, they will need to embrace a systems thinking mindset.
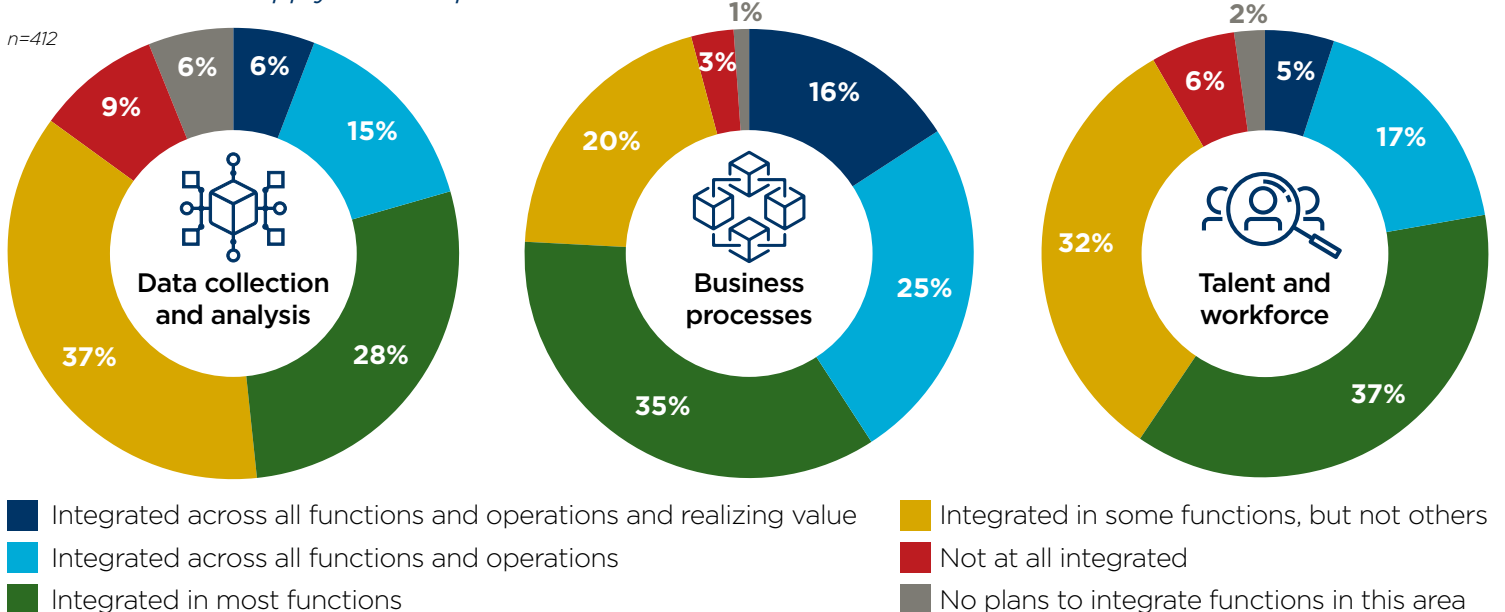
The data imperative

Data is the lifeblood of the modern procurement function: real-time information about everything from supplier operations to contract management is critical to efficiency, spend management, and compliance.

Despite that reality, our research shows that procurement executives are not always using data to effectively drive decision-making at scale, possibly due to a lack of integration with other functions. In fact, our research indicates that fewer than a quarter of procurement and supply chain executives say their data collection and analysis processes are integrated across functions.

The pandemic has shown the need for greater cross-functional and external collaboration to maintain business continuity and increase resilience, and executives are making progress in this area. Nearly half (49% of procurement executives and 47% of supply chain executives) have increased their data-sharing in some areas or across the business. Some are acting on the need to build a workforce with the right skills to make meaning from that data; more than a third (39% of both procurement and supply chain executives) have retrained employees to work with data.

Fig. 1: Fewer than a quarter of procurement and supply chain executives say data collection and analysis is integrated across all functions

Q: To what extent are your organization's business functions integrated in the following ways?
Procurement and supply chain responses combined

n=412

Data collection and analysis
- 6%
- 15%
- 28%
- 37%
- 9%
- 6%

Business processes
- 1%
- 3%
- 16%
- 25%
- 35%
- 20%

Talent and workforce
- 2%
- 5%
- 17%
- 37%
- 32%
- 6%

- ■ Integrated across all functions and operations and realizing value
- ■ Integrated across all functions and operations
- ■ Integrated in most functions
- ■ Integrated in some functions, but not others
- ■ Not at all integrated
- ■ No plans to integrate functions in this area

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But data-sharing cannot stop at the front door. As the pandemic so painfully illustrated, executives must increase visibility with business partners—especially their most critical suppliers. Increased data-sharing and visibility outside the organizational firewall enables executives to plan around unforeseen disruptions, from natural disasters and plant closures to resource shortages, allowing them to act before such events result in empty shelves and darkened factories.
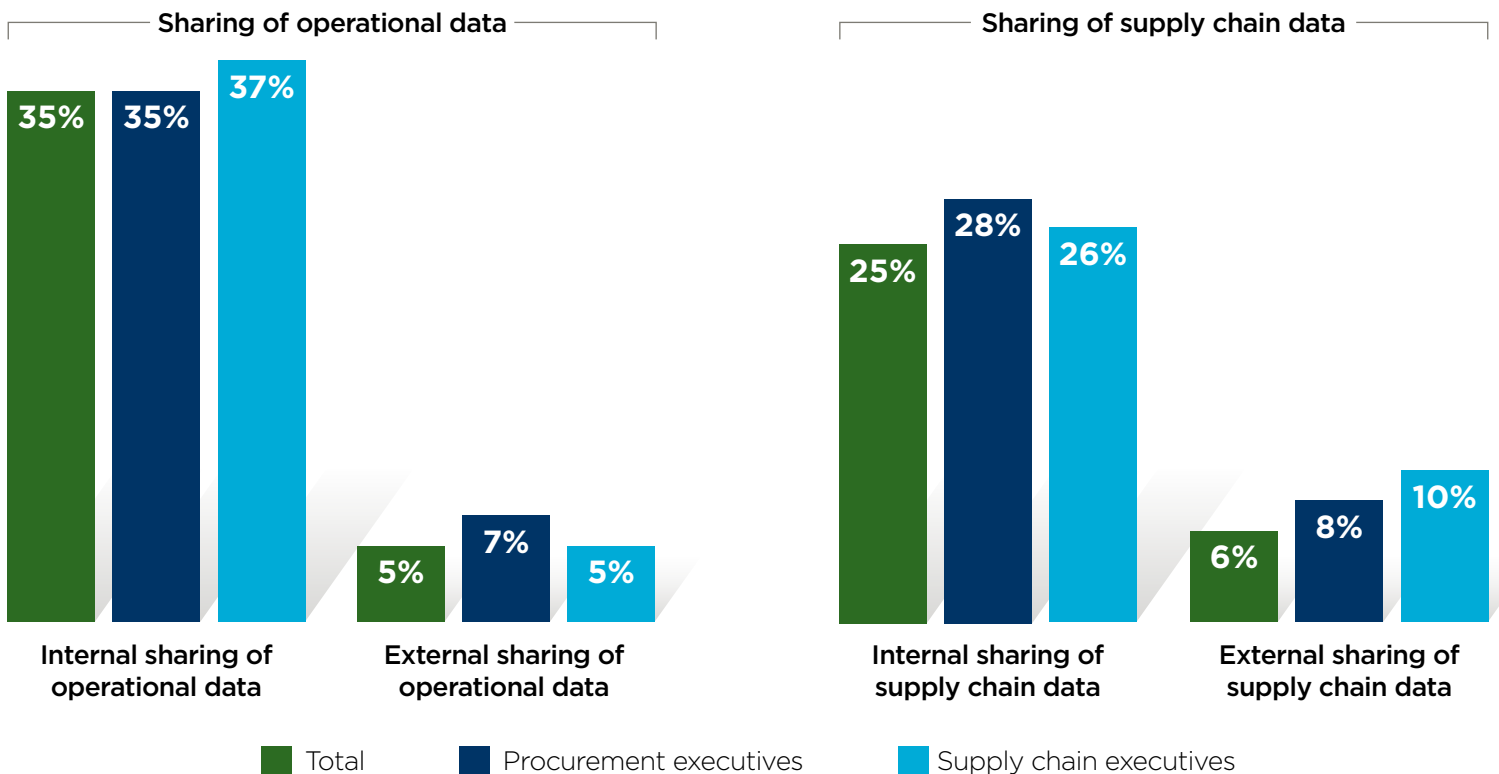
Yet just 21% of procurement executives and 24% of supply chain executives say they have increased data-sharing with ecosystem partners. And certain types of data that would be useful to partners and suppliers currently are underutilized. Only about one-quarter of procurement executives report moderate or fluid sharing of operational data or supply chain data with business partners.

Many companies that share data across functions and with partners are seeing the benefits. More than one-half of procurement and supply chain executives say their data-sharing has increased visibility into tier 1 and 2 suppliers (55%); improved internal efficiencies (53%); and improved existing products and services (56%).

Effective collection and analysis of data—long hallmarks of successful procurement and supply chain management—emerged as critical differentiators during the crisis. Executives will need to better integrate these disciplines across functions to achieve the benefits of systems thinking.

Fig. 2: Few executives are sharing data fluidly

Q: How effectively are you sharing the following sources of data internally/with your business partners? *"Rapid, fluid sharing of data" responses*

Sharing of operational data

- Internal sharing of operational data: Total 35%, Procurement executives 35%, Supply chain executives 37%
- External sharing of operational data: Total 5%, Procurement executives 7%, Supply chain executives 5%

Sharing of supply chain data

- Internal sharing of supply chain data: Total 25%, Procurement executives 28%, Supply chain executives 26%
- External sharing of supply chain data: Total 6%, Procurement executives 8%, Supply chain executives 10%

Legend: Total | Procurement executives | Supply chain executives

n=3,000 total; n=202 procurement executives; n=212 supply chain executives

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Lessons from industries

Our systems thinking research offers lessons on data, collaboration, and workforce strategy from industries that tend to be more reliant on strong procurement and supply chain functions.

Automotive

The automotive industry depends on its highly complex procurement and supply chain functions: more than three-quarters of automotive executives identified working with these functions as important or critical. The industry shares data internally better than most others surveyed, but external data-sharing remains challenging: nearly three-quarters say supply chain and logistics data-sharing is effective within the organization, but just one-quarter say the same about sharing with outside suppliers.

The industry is among the most likely to describe its processes (e.g., communication, data-sharing) as completely integrated, and is well ahead of others in realizing value from data collection and analysis.

Consumer products

More than four in 10 consumer products executives say their supply chains are highly complex, and one-third say the same about the scale of their geographic operations. Executives from this industry struggle with data-sharing, process integration, and talent.

Compounding the issue: fewer than one-fifth of consumer products executives say their communications, data-sharing, and process management are completely integrated. And they are less likely than other executives to say data collection and analysis are integrated across most or all functions.

Ultimately, data and talent should be part of a virtuous circle. However, just 45% of consumer products companies say their external workers are well integrated into company culture, a potential blind spot as the contingent workforce continues to grow in importance.

Oil and gas

After a stellar safety record, an efficient supply chain is perhaps the biggest differentiator for a successful oil and gas company, so it makes sense that this sector shows more maturity in this area than other sectors in our survey. Coordinating operations between oil fields and refineries and transportation by land and sea is a daunting and data-intensive feat. Unsurprisingly, 42% describe their supply chain as highly complex, and 38% say supply chain and logistics interactions are critical to success.

To manage that complexity, oil and gas executives are among the most likely to have increased transparency into their supply chains; they also report the highest level of supply chain data-sharing with external partners.
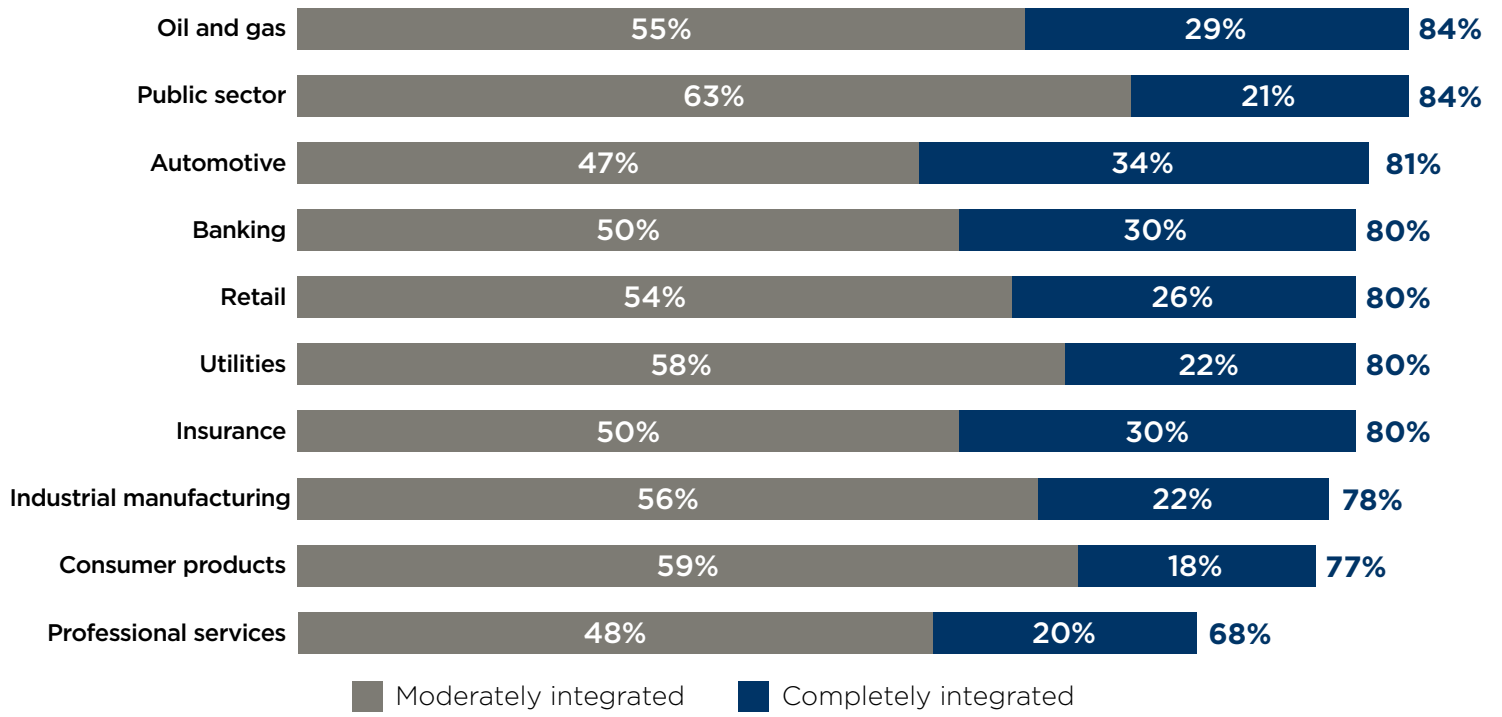
Public sector

The public sector relies on transparency, trust, and effective collaboration within and outside complex bureaucracies to deliver the most effective, efficient, and equitable services to citizens. Because of this complicated remit, the sector is more likely than others to say that working with outside partners and across functions is highly complex. For public sector administrators, increasing transparency is not only essential to better performance, it may be a compliance requirement.

Some progress is being made—approximately three-quarters of public sector respondents say they are piloting programs to increase data-sharing (78%), investing in collaborative technologies (72%), and breaking down organizational silos (72%).

Fig. 3: Industry progress toward functional integration

Q: Which best describes your organization's operations across functions, in terms of their communication, data-sharing, and process management?

Industry	Moderately integrated	Completely integrated	Total
Oil and gas	55%	29%	**84%**
Public sector	63%	21%	**84%**
Automotive	47%	34%	**81%**
Banking	50%	30%	**80%**
Retail	54%	26%	**80%**
Utilities	58%	22%	**80%**
Insurance	50%	30%	**80%**
Industrial manufacturing	56%	22%	**78%**
Consumer products	59%	18%	**77%**
Professional services	48%	20%	**68%**

■ Moderately integrated   ■ Completely integrated

Streamlining and standardizing processes

Upgrading processes across the business is a critical part of applying systems thinking and pursuing broader organizational goals. However, our survey reveals that at many organizations, procurement and supply chain processes remain manual and inefficient. Our procurement solutions research revealed that 35% of procurement executives say most of their processes are manual, and one in four cite a half-manual, half-automated approach.
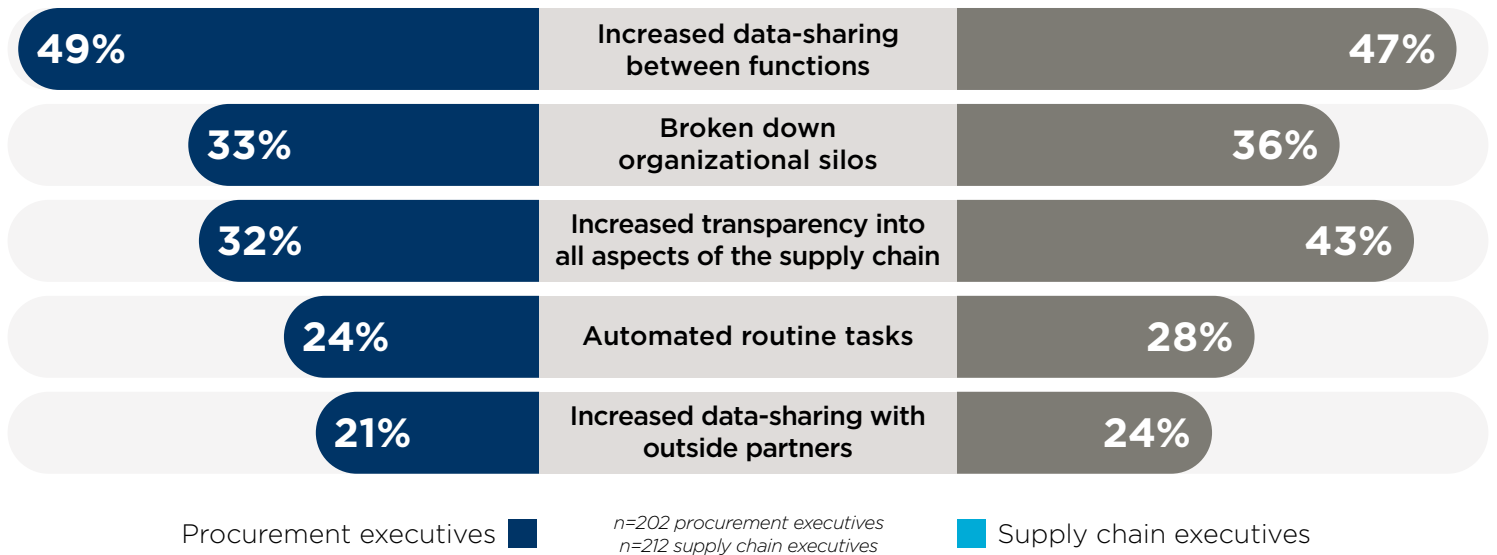
This should raise a red flag: a reliance on manual processes means executives have reduced visibility and control over spending, while many employees are occupied with low-level tasks. Additionally, too many analog tasks may negatively affect the employee experience, leading to decreased retention and increased difficulty attracting new talent.

More executives should pursue this opportunity for digital transformation: just 26% of procurement and supply chain executives in our systems thinking survey say they have implemented automation of routine tasks in at least some areas, and only 8% say they have automated routine tasks across all areas. Procurement-specific technologies can automate reconciliation or routine purchases, freeing up employees and executives to focus on higher-value tasks.

Manual processes make organizational silos harder to tear down, obstructing functional integration and collaboration. Just one-third of procurement executives say they have broken down silos. But visibility across silos is growing; supply chain executives are more likely to say that their organization has incorporated increased transparency into all aspects of the supply chain (43%, vs. 33% total). And two-thirds of supply chain and procurement executives say they have increased transparency into their operations in some or all areas.

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Fig. 4: Process change needed

Q: To what extent has your organization incorporated the following into its digital transformation efforts?
"Implementing in some areas" and "fully implemented" responses combined

Procurement executives		Supply chain executives
49%	Increased data-sharing between functions	**47%**
33%	Broken down organizational silos	**36%**
32%	Increased transparency into all aspects of the supply chain	**43%**
24%	Automated routine tasks	**28%**
21%	Increased data-sharing with outside partners	**24%**

Procurement executives ■   *n=202 procurement executives*
n=212 supply chain executives   ■ Supply chain executives

Procurement executives also acknowledge that integration is an important way to optimize processes. More than three-quarters (76%) say they are moderately or completely integrated in terms of communication, data-sharing, and process management, while 68% say they have integrated business processes. Executives who have done this see strong results—with nearly half saying it has led to reduced operational costs or spending.

The pandemic led to increased scrutiny of the procurement and supply chain functions; inefficiencies, organizational silos, and a lack of visibility became critical operational risks. Our survey shows that executives recognize the need to integrate and digitally transform their business processes, ameliorating the risks while supporting new business opportunities, and ensuring business preparedness for any future disruptions.
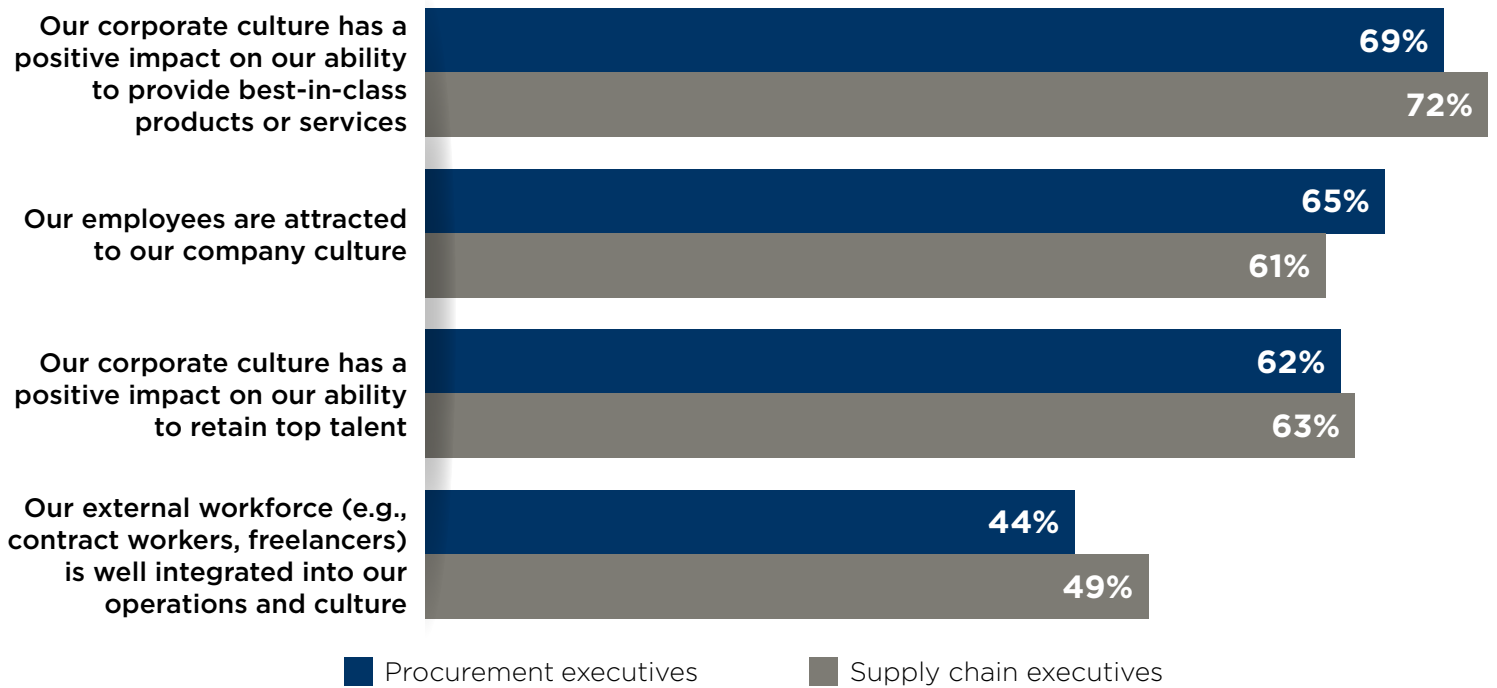
People drive everything

Data-sharing, transparency, and process integration are not possible without a skilled, engaged workforce. Yet only 43% of procurement executives in our procurement solutions research say they have the skills needed to support data-driven decision-making. These executives—and many others we have surveyed—have work to do to increase their employees' skills.

Employers from our systems thinking survey tend to be focused on two main aspects of workforce transformation. Three-quarters of procurement executives say they are effectively training employees to work with new technologies, and 69% of supply chain executives say the same. An equal percentage say they have made significant progress in improving employee experiences. These changes are having an impact: nearly two-thirds (65%) say their employees are attracted to their company culture, and 62% say it has a positive impact on talent retention.

Fig. 5: Procurement and supply chain executives are focused on the employee experience

Q: To what extent do you agree with the following statements about current and prospective workers at your organization? *"Agree" and "strongly agree" responses combined*

Statement	Procurement executives	Supply chain executives
Our corporate culture has a positive impact on our ability to provide best-in-class products or services	69%	72%
Our employees are attracted to our company culture	65%	61%
Our corporate culture has a positive impact on our ability to retain top talent	62%	63%
Our external workforce (e.g., contract workers, freelancers) is well integrated into our operations and culture	44%	49%

■ Procurement executives   ■ Supply chain executives

n=202 procurement executives; n=212 supply chain executives

In cases where skills gaps exist, procurement and supply chain executives may turn to contingent labor. In this area, fewer than half of procurement (45%) and supply chain executives (49%) say contingent labor is well integrated into company culture and operations—a potential blind spot, and another element where the holistic systems thinking approach can be applied. However, some organizations like oil and gas (52%) and automotive (54%) are more likely than others to say their external workforces are well integrated.

Executives in the procurement and supply chain functions, like their peers across the organization, must continue to improve employee experiences and skillsets. Keeping up with technology change and focusing on human interactions is increasingly important in the new digital era.

Conclusion

How can procurement and supply chain executives help businesses succeed while increasing their visibility and engagement? Our research points to the following calls to action for procurement and supply chain executives:

■ **Remain highly visible.** 2020 brought unprecedented focus on the procurement and supply chain functions; while the crisis will fade, executives should continue to strengthen collaboration with other functions to retain a seat at the table.

■ **Increase data-sharing.** Effective internal data-sharing can increase operational efficiency, while external data-sharing can increase supplier collaboration to help prevent disruptions.

■ **Integrate processes.** A well-integrated organization can more effectively meet strategic goals and break down silos, while increasing transparency and collaboration across the enterprise.

■ **Automate routine work.** Automation should be top-of-mind, as it can free up employees and executives to focus on higher-value tasks.

■ **Keep improving employee experiences.** Satisfied employees are more productive. Executives should also keep an eye on potential skills gaps, which can cascade into major issues.

About the research: Beyond the crisis

Oxford Economics was commissioned by SAP to conduct a survey of 3,000 business executives, including 202 procurement executives and 212 supply chain executives. The survey was conducted between March 2020 and May 2020 via computer-assisted telephone interviewing. Because the data was collected during a time of heavy disruption from COVID-19 and the associated economic crisis, results shed light on data-sharing strategies for long-term success.

Respondents come from the United States, Canada, Mexico, Brazil, France, Germany, the United Kingdom, Nordics (Norway, Finland, Sweden, Denmark), India, Japan, Singapore, Australia, and New Zealand.

All respondents come from organizations with over $500 million in revenue; one-third come from organizations with $500 million to $999 million in revenue, one-third from organizations with $1 billion to $9.9 billion in revenue, and one-third with $10 billion or more in revenue.

For more details on methodology, see our full research report at http://www.sap.com/Oxford-Economics-IE-report.