

Procurement is under pressure to deliver speed, control, and supply continuity amid rising volatility and cost scrutiny. Embedded AI enables faster sourcing, real-time spend visibility, and proactive risk response. These capabilities are becoming essential for finance and operations leaders navigating constant disruption.

# Enhancing Procurement Agility and Resilience Through AI

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**Written by:** Stephanie Krishnan, Associate Vice President, IDC Industry Insights

## Modernizing Procurement for Volatility and Control

Procurement is under pressure. Disruptions in global supply chains, increasing regulatory complexity, and mounting cost control expectations have shifted how organizations prioritize technology investments. According to IDC's *Office of the CFO Survey* (August 2024), CFOs are focusing on modernizing procure-to-pay (P2P) processes as part of broader cost containment and risk mitigation strategies.

In this context, procurement agility is emerging as a key differentiator. IDC's 2024 *Services Path Survey* found that 53% of procurement business process services users are already applying generative AI (GenAI) tools, and they are using them to identify emerging trends, predict future market shifts, and suggest new suppliers.

Manufacturers face particular challenges, demanding more responsive and intelligent procurement. GenAI technologies offer an opportunity to improve decision-making, increase efficiency, and enhance supplier diversification. AI-powered spend classification and source-to-pay solutions can support more resilient and agile procurement operations.

Key dynamics shaping this shift include:

- » **Geopolitical risk exposure:** Unpredictable trade policies are raising supplier risks and pushing sourcing diversification.
- » **Raw material and input price volatility:** Fluctuating prices and freight costs are tightening margin control.
- » **Rising expectations for procurement agility:** Manufacturers need faster sourcing, real-time visibility, and scenario planning.

## AT A GLANCE

### KEY STATS

IDC's 2024 *Services Path Survey* showed that procurement is an early application area for AI to support:

- » 53% of procurement business process service users already employing GenAI
- » 37% of enterprise IT buyers preparing for greater AI use

### WHAT'S IMPORTANT

Procurement is moving beyond experimentation. GenAI is being embedded into source-to-pay workflows to improve sourcing agility, enforce spend control, and strengthen supplier decision-making at scale, especially in volatile and high-risk environments.

- » **Digital enablement via AI:** GenAI is being embedded to automate tasks and improve procurement insights.

This Spotlight explores how AI is applied in procurement, and outlines associated trends, benefits, and stakeholder value.

### Key Definitions

- » **Spend classification:** The process of categorizing procurement spend data to enhance visibility and control, enabling better decision-making and negotiation leverage.
- » **Generative AI (GenAI):** Advanced AI technology that generates new and original content by learning patterns from vast amounts of training data.
- » **Procure-to-pay (P2P):** A comprehensive process encompassing procurement of goods and services through to invoice payment, critical for cost control and risk mitigation.
- » **Supplier diversification:** The strategic approach to expanding supplier networks to mitigate risks and enhance procurement resilience.
- » **AI agents:** Software systems capable of directed, independent action that are context aware, and able to make decisions, take actions, and interact with users or other systems in a human-like manner, combining interaction, planning and action layers to execute complex tasks independently.

### Procurement Trends Shaping AI Investment

Procurement modernization begins with digitalization to improve visibility, progresses to modernization for consistency and control, and culminates in data-driven applications that shape strategy and mitigate risk. For senior procurement and finance leaders, the priority is delivering measurable business value, including reducing leakage, compressing cycle times, improving compliance, meeting evolving environmental, social, and governance (ESG) standards, and responding faster to supply-side volatility, enabled by investments in platforms, automation, and data governance. The most forward-looking teams are now building on this foundation to scale AI capabilities that drive deeper insights, strengthen supplier engagement, and increase sourcing agility. This includes investment in:

- » **Unified source-to-settle platforms:** The push for integrated platforms reflects growing adoption in procurement management, contract award, and post-award management, where seamless data flow and supplier coordination enable agility and control in an environment shaped by volatile input costs, geopolitical pressures, and fragmented supplier ecosystems.
- » **Automation and workflow-centric solutions:** Use cases like sourcing optimization and procurement management are driving automation of approvals, cycle time reduction, and intelligent task routing, enabling procurement leaders to shorten sourcing lead times, respond faster to demand changes, and ensure compliance with internal controls.
- » **Predictive analytics for spend management:** AI/GenAI-enabled forecasting is being embedded into cost optimization and procurement use cases to help procurement leaders anticipate demand shifts, monitor supplier performance risk, and proactively manage cost volatility. These capabilities support smarter sourcing decisions, improve inventory planning, and give teams the foresight needed to negotiate more effectively under dynamic market conditions.

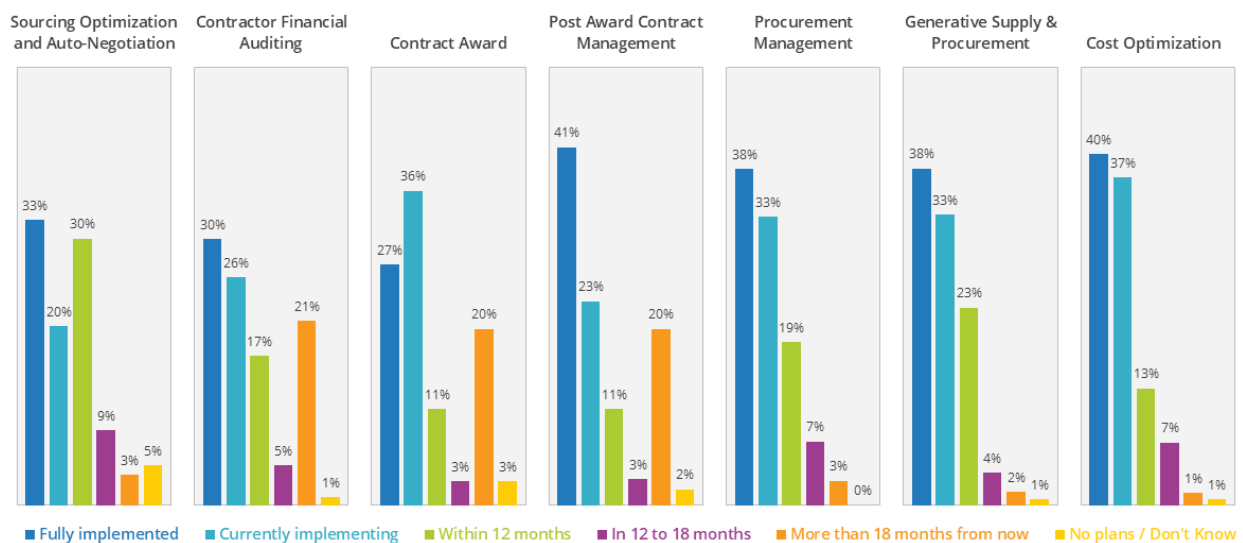
- » **Resilient source-to-pay processes:** AI and GenAI are helping manufacturers build more resilient procurement operations by addressing some of the most disruption-prone areas such as financial auditing, sourcing, and post-award contract management. By embedding intelligent automation and insight generation into these functions, organizations can flag anomalies early, adapt contracts to changing conditions, and ensure continuity of supply.

These trends are driving procurement transformation from both the top down (strategy and architecture) and bottom up (tools and workflows). These priorities are also echoed in how organizations are phasing their adoption of AI. They are prioritizing use cases that directly support visibility, supplier responsiveness, and process efficiency. This is evident in IDC's 2025 Vertical AI Use Case Survey (Figure 1), which shows higher implementation rates for use cases such as cost optimization, procurement management, and generative procurement. These reflect the market's focus on foundational value levers like control, efficiency, and agility before extending to more advanced life-cycle activities such as contract award or post-award management. Generative AI is increasingly being used to automate request for quotation/proposal/information (RFx) creation, classify supplier risk profiles, and flag compliance outliers, enabling teams to redirect effort from routine processing to more strategic sourcing tasks.

However, future adoption is planned for areas such as sourcing optimization, auto-negotiation, contractor auditing, and contract award. These areas are more complex and often require deeper integration with supplier ecosystems, structured data models, and policy frameworks. Their later-stage adoption reflects the path many organizations are following. This starts with foundational value levers like cost optimization and supplier management, then expands into advanced negotiation and compliance domains. For 2025, procurement and finance leaders increasingly recognize that scaling AI is not only a technology challenge, but also a data and governance challenge, requiring unified taxonomies, harmonized workflows, and stronger collaboration between IT and procurement teams. This progression highlights the importance of building data maturity and automation capabilities early on, so that higher-order use cases can be tackled with greater confidence and return on investment.

FIGURE 1: *Timeline for Procurement Use Case Adoption*

**Q When does your organization plan to fully implement GenAI in each of these use cases?**



Source: IDC Vertical AI Use Case Survey, 2025

## Unlocking Value Through AI-Enabled Procurement

As organizations embed AI across procurement workflows, the benefits are beginning to surface in both strategic and operational areas. The shift from manual effort to AI-driven execution is reshaping how procurement leaders manage data, engage suppliers, optimize demand planning, and respond to market pressures. These gains are not just theoretical. They are measurable, visible, and increasingly expected across the enterprise.

Key outcomes of AI-enabled procurement include:

- » **Enhanced spend visibility:** AI-driven classification delivers accurate, consistent insight into procurement patterns and spend categories reducing off-contract purchases and improved category-level compliance. For finance teams, this results in better accrual forecasting and reduced budget variance.
- » **Smarter demand forecasting:** AI analyzes historical spend patterns, supplier performance, and market signals to forecast demand trends, helping optimize purchasing schedules, inventory alignment, and supplier capacity planning.
- » **Improved supplier management and collaboration:** AI supports supplier diversification and integrates qualification and risk scoring into core workflows, allowing procurement teams to monitor supplier stability, ESG alignment, and delivery performance more effectively. Predictive analytics can also anticipate supplier capacity constraints, enabling earlier collaboration and joint problem solving.
- » **Faster time to source and contracting:** Automated discovery and classification reduce sourcing cycle times and manual effort. AI-assisted contract authoring and clause analysis further accelerate negotiations and compliance checks. This frees procurement teams to focus on higher-value activities such as supplier negotiations, strategic sourcing, and stakeholder engagement.
- » **Accurate spend control and policy enforcement:** Centralized taxonomies and GenAI automation improve compliance, allowing for consistent benchmarking of prices, outliers to be flagged, and enforcement of preferred supplier usage, which can strengthen negotiation positions. For example, by automatically routing purchases to pre-approved suppliers and alerting teams when pricing deviates from negotiated rates, procurement functions can reduce maverick spend, improve policy adherence, and secure more favorable contract terms.
- » **Real-time insights and scenario modeling:** Dashboards powered by AI deliver actionable metrics and early signals for procurement decision-makers. Scenario modeling allows teams to simulate the impact of supplier disruptions, price volatility, or regulatory changes, enabling proactive strategies and risk mitigation.
- » **Reduced cycle time and operational load:** AI helps organizations compress the source-to-pay cycle by automating tasks like invoice matching, approval routing, and purchase order (PO) validation, while surfacing recommended actions based on contextual data. These automations reduce manual entry errors, accelerate exception handling, and ensure consistent policy enforcement, leading to faster approvals, fewer processing delays, and more reliable working capital planning.

Together, these benefits reflect what AI can do when embedded within procurement's day-to-day operations as a lever for measurable business impact. With the right data foundation and governance in place, AI unlocks a new level of responsiveness, insight, and control increasingly expected from procurement by finance and business leadership.

## Considering TCS & Oracle Fusion Cloud Procurement

Tata Consultancy Services (TCS) has been one of Oracle's strategic partners for more than three decades. TCS offers services tailored to both industry and business processes, including consulting, implementation, and managed services, helping businesses to modernize and drive value. TCS offers fully managed support services for enterprise applications, including enterprise resource planning (ERP), supply chain management (SCM) and manufacturing, human capital management (HCM), customer relationship management (CRM), and workforce management, and supports major technologies such as Oracle, SAP, Microsoft, and Salesforce. TCS is known for its end-to-end service offerings, including advisory, implementation, cloud migration, and ongoing operational support, often leveraging automation and analytics to enhance operational efficiency.

Oracle Fusion Cloud Procurement is a source-to-settle platform designed to optimize procurement through integrated modules for sourcing, purchasing, supplier management, sustainability, and contracts. It combines automation, analytics, and AI-driven insights within Oracle's ERP and SCM ecosystem to support spend management and compliance. With embedded workflows and a modern interface, the solution enhances decision-making, streamlines operations, and improves supplier collaboration, particularly for organizations with complex supply chains or regulatory demands. Recognized as a leader in IDC's Worldwide AI-Enabled Source to Pay 2025 Vendor Assessment MarketScape, it delivers agility, control, and strategic value.

### TCS Crystallus: Extending Oracle's AI-Driven Procurement Capabilities

TCS Crystallus incorporates Oracle's AI-enabled procurement foundation, preconfigured services and advisory support designed for strategic procurement. It combines TCS' domain expertise, contextual knowledge, and established industry best-practices with Oracle's AI-enabled procurement foundation. This partnership aims to accelerate time-to-value through TCS's structured implementation methodologies, process design frameworks, preconfigured instances, process documentation, and implementation accelerators to support digital procurement transformation.

TCS Crystallus enhances the agility and resilience of procurement operations by:

- » Providing an end-to-end process foundation for digital procurement, with industry catalogs and aligned key performance indicators (KPIs), that enables transformative partnerships with customers.
- » Enabling design experience to identify risks and critical challenges associated with adoption of AI-based solutions for an enterprise.
- » Supporting an AI adoption strategy that addresses both short-term challenges and enables long-term business benefits in alignment with client-specific goals.
- » Focusing on strategic use cases such as supply chain risk mitigation, supplier diversification, and data-driven decision-making, which are core areas where procurement and finance leaders seek measurable ROI.
- » Enabling an ecosystem operating model with Oracle Cloud at its core, and simplifying the cloud transformation journey by automating processes, connecting disparate systems, and leveraging next-gen technologies to facilitate data-driven decisions with actionable insights.

## Challenges

While interest in AI- and data-driven procurement is high, not all organizations are fully equipped to translate that interest into impact. Some are still navigating the shift from legacy systems and processes, lacking the digital foundation or operational flexibility required to scale modern procurement capabilities. For these organizations, aligning technology with internal stakeholder needs and overcoming data silos can pose significant hurdles. However, this also presents an opportunity to reassess procurement strategies, invest in foundational capabilities like spend classification and supplier visibility, and build internal alignment between procurement, finance, and IT teams.

Even with modern platforms, organizations may face onboarding and adoption challenges. Extensive functionality and configurability can require a period of orientation for users, especially those unfamiliar with cloud-based procurement systems. However, the introduction of AI-driven guidance can mitigate this learning curve by offering contextual assistance, automating routine setup tasks, and accelerating time to value through more intuitive user experiences. Likewise, advanced customization or integration with non-Oracle legacy systems may extend implementation timelines, but this also creates a chance to streamline processes and align procurement with broader digital transformation goals.

In a market shaped by economic uncertainty, cost discipline, and geopolitical complexity, these challenges underscore the need for strategic planning, flexible deployment models, and a clear road map to realize the benefits of AI and digital procurement.

## Conclusion

In today's volatile environment, procurement must deliver speed, resilience, and process efficiency, on top of cost discipline. This means better visibility, faster sourcing, and tighter supplier alignment, even as market conditions shift without warning. AI and GenAI matter not because they're new, but because they help organizations meet these demands without burning out teams or breaking workflows. When deployed with intent and embedded into real processes, they enable procurement to act faster, see further, and control more.

## About the Analyst



### ***Stephanie Krishnan, Associate Vice President, IDC Industry Insights***

Stephanie Krishnan is Associate Vice President at IDC, where she leads the global research direction for supply chain studies and oversees IDC's Manufacturing, Retail, and Energy Insights programs across Asia/Pacific. Her research focuses on digital transformation, Industry 4.0, and intelligent operations, with particular emphasis on global manufacturing, logistics, transportation, and warehousing, as well as the impact of shifting market conditions on supply chain performance. Stephanie also continues to write on sustainability, exploring its operational and technological implications across the sectors she covers.

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Oracle (NYSE: ORCL) offers integrated suites of applications plus secure, autonomous infrastructure in the Oracle Cloud.

- » To learn more, please visit [www.oracle.com/procurement](http://www.oracle.com/procurement)
- » [Watch a demo video to see how AI can help you simplify supplier qualification management](#)

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[TCS' Manufacturing Oracle Practice](#) brings together extensive procurement expertise and advanced Oracle Procurement skills across both on-premises and cloud platforms to deliver end-to-end advisory, implementation, migration, support, and managed services. Leveraging TCS Crystallus, manufacturing customers benefit from AI-driven procurement foundation, which comes with preconfigured services, industry-specific context, and strategic advisory support. This holistic approach streamlines the adoption of intelligent procurement processes, accelerates time-to-value, and empowers organizations to make data-driven decisions for long-term success.



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**IDC Research, Inc.**  
140 Kendrick Street  
Building B  
Needham, MA 02494, USA  
T 508.872.8200  
F 508.935.4015  
[blogs.idc.com](http://blogs.idc.com)  
[www.idc.com](http://www.idc.com)

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