Is Your Organization Ready for Cognitive Procurement?

Although Procurement is Ripe for Cognitive Transformation, Organizations Must Address Existing Challenges to Maximize Returns

Shirley Hung, Vice President
Vatsal Gupta, Senior Analyst
Vani Oswal, Senior Analyst

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Introduction

In this era of digital disruption, business requirements have become more diverse and complex. Enterprises and their suppliers have to adjust to next-generation technologies, and there has been a significant rise in organizations’ expectations of their procurement teams. Today, procurement’s role has moved beyond cost influencer; they are now seen as growth-contributors as well.

For procurement, the key to delivering more strategic value to the organization lies in effective leverage of next-generation solutions. Companies have already started to realize the benefits of analytics and automation in enhancing the efficiency of their procurement processes. To achieve the next-level benefits of technological advances, procurement teams need to leverage AI/cognitive solutions, as they are enablers of intelligent automation. Cognitive solutions present unique opportunities for organizations – enabling them to generate supplier intelligence, perform contract analysis, prevent fraud and duplicate payment, and enhance buyer decision-making.

The definition of AI/cognitive is continually evolving, and understanding of its capabilities and applications varies widely in the market. Because it is a relatively new area in the procurement services space, many organizations are in the early education and adoption stages. Companies are seeking to understand how to drive maximum value from their cognitive deployments and how they can ease the implementation process.

Against this backdrop, this viewpoint explores the rise of cognitive solutions in procurement processes and addresses the following questions:

- What are the new expectations of the Chief Procurement Officer (CPO) to deliver strategic value to the organization?
- How can cognitive solutions help the CPO meet those objectives?
- What key factors do enterprises need to consider to enable smooth deployment of these cognitive solutions?
- What best practices can enterprises consider to successfully deploy these cognitive solutions?
Key CPO imperatives

The world of procurement has become deeply complex. CPOs, who historically have focused on saving cost and securing supply, are now required to play a much more strategic role within their organizations. Instead of only minimizing cost, they are now required to “add-value” and help the business achieve its goals. This new procurement mandate includes multiple levers, as described in Exhibit 1.

EXHIBIT 1

Key CPO focus areas

Source: Everest Group (2019)

Handle rising procurement costs

- Rapidly changing consumer demands are leading to complex business requirements, which, in turn, are increasing the cost of procurement processes
- In addition, lack of streamlined process, low digitalization, and scarcity of talent are further increasing the cost of operations

Minimize risks

- CPOs have to deal with multiple risks, both internal (manufacturing delays, shortage of material, etc.) and external (supplier performance, natural disaster, price volatility, etc.)
- These risks are further complicating procurement functions and lengthening decision-making cycles

Decrease lead time

- The procurement cycle is lengthening due to myriad uncertainties such as prolonged decision-making processes and supply chain challenges
- These challenges are having a direct effect on production and impacting business output, increasing complexities for CPOs

Drive supplier collaboration

- Growing regulatory and quality pressures are straining supplier relationships
- However, enterprises’ expectations from their suppliers are moving significantly beyond cost and risk management
- As a result, driving supplier collaboration is becoming crucial

Enhance spend visibility

Disparate data sources, limited digitalization, and significant manual intervention limit visibility into spend data, subsequently limiting CPOs’ ability to drive savings and streamline the process

Optimize working capital

Many businesses are facing cashflow problems, requiring CPS to streamline their payment cycles, reduce early and excess payments, and help optimize working capital
Rise of cognitive procurement

The new mandates for the CPO have resulted in a rash of transformation initiatives, driving significant investment in procurement process revamping. While investing in talent and skills has always been important, next-generation digital technologies are becoming the key focus for CPOs.

Although procurement platforms have made the procurement process more efficient, multiple gaps remain, which enterprises are trying to address with analytics, robotics, and mobility solutions. Analytics can provide deeper insights and, consequently, smarter decisions. Robotics can further automate transactional activities, thereby enabling the procurement team to focus on more judgment-intensive tasks. Mobility has enabled procurement executives to make decisions on-the-go. While the deployment of these newer technologies has truly revamped the process, we argue that it is only half the battle. The move to cognitive procurement is the real procurement nirvana.

In essence, cognitive solutions consist of Artificial Intelligence / Machine Learning (AI/ML) interventions in combination with the above mentioned technologies. AI/ML helps remove humans from the loop by codifying their intelligence. AI/ML allows computers to perceive process scenarios, analyze and understand collected information, recognize possible problems, make informed decisions, and take appropriate actions – all without significantly involving the procurement team.

Imagine a scenario in which most invoice processing activities are already optimized by using process improvement techniques and leveraging technology platforms, robotics, and mobility. While the process would be much better than before, exceptions such as duplicate vendor, PO mismatch, incorrect classification, and overpayments would still require human intervention – humans would be required to review, assess, and manage these exceptions.

A cognitive solution, in this case, can help embed the “brain” within the process, which would learn how to handle exceptions over time based on continuous learning.

<table>
<thead>
<tr>
<th>Traditional procurement</th>
<th>Cognitive procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactive supplier management</td>
<td>Proactive supplier management</td>
</tr>
<tr>
<td>Limited consideration of market risk</td>
<td>Comprehensive risk management</td>
</tr>
<tr>
<td>Annual contract review</td>
<td>Ongoing contract optimization</td>
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<tr>
<td>Multiple procurement touchpoints</td>
<td>Conversational sourcing assistant</td>
</tr>
<tr>
<td>Multiple process exceptions</td>
<td>Touchless process</td>
</tr>
<tr>
<td>Limited checks on payments</td>
<td>Fraud payments prevention</td>
</tr>
</tbody>
</table>

Source: Everest Group (2019)
What does cognitive procurement look like, and what are its attributes? While the possibilities are endless, we explore four aspirational – yet realistic – solutions below.

### EXHIBIT 3

**Key attributes of cognitive procurement**

Source: Everest Group (2019)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smart sourcing</strong></td>
<td>Generate supplier intelligence and assist in vendor selection, Offer real-time price benchmarking, Identify ways to control maverick spending</td>
</tr>
<tr>
<td><strong>Intelligent purchase agents</strong></td>
<td>Virtual purchase agents guide buyers to the right decisions, Agents answer queries and enable policy adherence, Agents improve over time based on buyers’ past purchases</td>
</tr>
<tr>
<td><strong>Proactive vendor management</strong></td>
<td>Real-time monitoring of vendor performance, Ongoing comparison with market benchmarks, Automated handling of vendor communication</td>
</tr>
<tr>
<td><strong>Touchless invoice processing</strong></td>
<td>Automated invoice data capture through intelligent OCR, Learning model minimizes and manages exceptions, Predicts and evaluates overdue invoices and triggers alerts</td>
</tr>
</tbody>
</table>

Clearly, cognitive procurement is a smarter way to run processes. It reduces cost, speeds processes, minimizes risk, and improves stakeholder satisfaction. An indirect benefit of cognitive procurement is that it takes the conversation from an activity-oriented approach to an outcome-oriented approach. The sole focus on activity-linked SLAs, such as processing timeliness and accuracy, makes way for business outcomes such as topline impact, employee satisfaction, vendor satisfaction, and risk mitigation. The cognitive approach enables, in part, the strategic role that procurement aspires to play.
Key challenges to cognitive adoption

Cognitive procurement can positively impact procurement processes in many ways, so why haven’t more enterprises adopted it? The answer to that question is complicated and has multiple facets. Organizations face many challenges in their transformation journeys; it is imperative that they consider and proactively manage these challenges before attempting to implement a cognitive procurement strategy.

Implementation involves training cognitive systems, and this training requires massive amounts of data from which these machines can learn. Furthermore, skilled resources must invest time in fine-tuning the cognitive engine before valuable outputs can be gleaned. These challenges can be classified into the five themes outlined described below.

**EXHIBIT 4**

Leading challenges faced by organizations in adopting cognitive technologies

Source: Everest Group (2019)

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**Data**

- **Limited data availability**: Developing a cognitive system requires training data. Most process data is not captured, and what is captured tends to reside in siloes – the holistic view required for cognitive training generally does not exist. Organizations wanting to adopt cognitive procurement will need to factor in additional investment in data capture and integration.

- **Bad quality data**: A key prerequisite for cognitive is good quality data. Unstructured and/or low quality data creates problems during training, so data enrichment and ingestion technology may be required.

**Process**

**Lack of standardization**: A procurement process that varies significantly across regions/categories or that requires frequent changes and adjustments is not an ideal choice for cognitive implementation. Force-fitting such a process would yield lower returns and might require much higher investments. In such a scenario, the CPO should instead invest in traditional process improvement and redesign techniques to standardize and centralize the process before aspiring to cognitive transformation.
IS YOUR ORGANIZATION READY FOR COGNITIVE PROCUREMENT?

People
- **Lack of necessary talent:** One of the key challenges organizations face is finding and retaining the talent necessary to successfully implement and run cognitive. Cognitive implementation requires data scientists, coders, developers, and process and systems experts – all of whom must work together. The need for data scientists or cognitive experts also has led to a supply-demand gap, further complicating the situation. CPOs need to pay special attention to talent acquisition and retention, especially during the transition to cognitive. One solution is to seek external support through procurement service providers.

- **Change management:** The move to cognitive procurement involves multiple changes, including, but not limited to, operating model changes, role reclassification, changes to KPIs, and cross-functional collaboration. Consequently, successful implementation requires significant change and transition management. Alignment of objectives and approach with key stakeholders, leadership buy-in, and proactive communication can help address issues early in the process.

Technology
- **Legacy issues:** Existing investments in technology systems is often a bottleneck for organizations willing to adopt cognitive. It is especially hard for the CIO and Head of IT to justify new investments that might impact the current investment’s ROI. This challenge highlights the need for agile cognitive solutions to adapt to an organization’s technology landscape.

- **Lack of robust solutions:** Even organizations that have made the decision to move to cognitive face the issue of identifying the right technology solutions. Although the market is ripe for innovation, there are no products that offer robust functionalities. Additionally, limited services or partner support impacts successful adoption.

Referenceability
Before adopting such a transformative technology, organizations want to learn from existing implementations. However, lack of successful reference examples is impeding cognitive adoption (a challenge that is not unique to cognitive). This situation is on the verge of change. A few pioneers have already started investing in cognitive procurement solutions. As the market matures and these pioneer organizations lead the change, this challenge should naturally diminish.
Best practices and guidelines

A successful cognitive implementation requires a gradual move to digital maturity. If you forcefully accelerate it, you run the risk of improper contextualization. If you try to bypass some steps, you run the risk of achieving the exact opposite of what you set out to achieve, namely, an efficient and intelligent process.

Cognitive adoption is not a lift-and-shift approach; it requires a transformation journey. Below we outline some best practices to help make the journey a success.

**Planned approach**
- Ensure key stakeholder involvement early in the process
- Plan the implementation roadmap in consultation with experienced specialists
- Start small and focus on specific requirements
- Once pilot projects achieve results and associated benefits, move on to complex processes

**Data management strategy**
- Define a clear data management strategy for cognitive deployments. Start small and probably with relatively mature data sources such as spend and invoice data
- Build the computing power and infrastructure required to quickly process large amounts of data
- Identify and capture data from different sources into a common platform and define security levels

**Drive technology investments**
- Focus more on finding the appropriate cognitive technology and driving benefits than on the science behind cognitive
- Leverage existing third-party solutions to expedite implementation
- Partner with procurement service providers, as appropriate, to lower upfront investment cost, and minimize challenges related to technology knowledge, domain expertise, and talent

**Develop future-ready talent**
- Evolve recruitment and training strategies to ensure the talent pool can easily interface with these technologies
- Build a future-ready employee pool
  - Upskill relevant employees to handle judgement-oriented parts of the process for which they currently handle the transactional tasks
  - Reskill employees, where possible, to perform new roles of similar complexity in different areas of work
Conclusion

Successful global organizations have realized that procurement is one of their most critical business functions. It is no longer being leveraged solely for cost containment, but is seen as a potential contributor to corporate growth. Consequently, organizations’ expectations of their CPOs are growing as well. Business impact and risk management are now important KPIs for the procurement team.

While technologies such as robotics, cloud, and analytics have set procurement on the digital path, true transformation is only possible through the integration of cognitive within the function. Cognitive solutions not only improve process efficiency, they also provide smarter business insights and transform user experience.

While the advantages of cognitive procurement are clear, enterprises struggle to adopt it due to a variety of challenges including poor data quality, broken processes, existing technology landscape, talent gaps, and limited reference examples. However, early adopters are working through these challenges to make cognitive procurement a reality.

It is imperative that organizations that want to stay ahead of the curve, or even on the curve, explore and start investing in this technology. Cognitive procurement is the present and the future; is your organization ready to take the plunge?
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For more information about Everest Group, please contact:

+1-214-451-3000
info@everestgrp.com

For more information about this topic please contact the author(s):

Shirley Hung, Vice President
shirley.hung@everestgrp.com

Vatsal Gupta, Senior Analyst
vatsal.gupta@everestgrp.com

Vani Oswal, Senior Analyst
vani.oswal@everestgrp.com