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Predictive Procurement Orchestration:
Four Ways It Can Transform the Industry

Andrew Bartolini

Founder & Chief Research Officer

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Executive Summary

Ardent Partners research shows that a majority of Chief Procurement Officers ("CPOs") believe the ability to use data to make better-informed decisions across an organization is the largest game-changing opportunity for the profession. Despite this view, there is a clear disconnect between the value in supply chain data and the ability of procurement teams to extract it. More pointedly, a majority of procurement organizations have failed to leverage technology to its full effect.

By utilizing a unique blend of predictive AI technology, machine learning, game theory, and behavioral science, new Predictive Procurement Orchestration ("PPO") solutions have the potential to harmonize this dissonance and help sourcing and procurement professionals scale their expertise and best practices (while also driving impactful results). This report examines the emerging field of Predictive Procurement Orchestration and identifies four key ways that PPO can help transform the procurement industry.

"The best way to predict the future is to create it."
~ Abraham Lincoln

More than twenty years into the great procurement transformation that elevated the function from a largely tactical operation to a strategic hub of business operations, intelligence, and results, most procurement teams have not yet realized their full potential. That said, procurement has certainly played a major role in helping modern businesses grow and expand. The impact has, in many cases, been significant with a clear majority of procurement departments noting they have made a powerful impact on the enterprise during the pandemic. Nonetheless, in a recent Ardent Partners survey, 90% of CPOs stated that they could and should be doing more with the resources they have in place today and that their overall performance should be better. Procurement's transformation has been an exciting and impactful journey; but "what got us here won't get us there." New and innovative strategies, tools, and approaches are needed to propel procurement to the next level of performance. The next phase in procurement's transformation journey is only just beginning.

The State of Procurement: Opportunities Lost

The COVID-19 pandemic has shown business executives in all industries and regions many examples of how critical the procurement function is to operations and the supply chain. During the pandemic, many businesses' top priorities have played to the strengths and expertise of their procurement department. For example, the ongoing and all-too-common global supply chain disruptions that have captured headlines have highlighted how most enterprises' revenues, profits, and customer experiences are directly tied to the performance (and management) of their strategic suppliers. Likewise, as more companies begin to see their top-line revenues stagnate or fall, cost containment, a major focus for any procurement department, has gained in significance. Cost savings is a major business lever for profitability. In many businesses this year, procurement's performance will be the difference between profit and loss.

Nonetheless, a majority of procurement departments still struggle to execute with precision and efficiency and fail to realize their goals and potential. Ardent Partners research has shown that the procurement profession has made significant strides over the past twenty years, but the returns are diminishing and many challenges remain. Here are four examples.

Lost Opportunity: Unmanaged Spend

In 2022, the percentage of spend under management of the procurement department at the average enterprise sits at 67.4%, a number that has remained relatively flat over the past decade. After many years of consistent growth, the industry's all-out drive to place more spend under management is slowing, with more procurement organizations seemingly satisfied to manage around two-thirds of total spend. Ardent Partners believes tracking this metric is important and trying to increase it makes sense. Ardent's research has shown that for every new dollar that is placed under management of the procurement department, the average enterprise realizes a benefit of between 6% and 12% during the first contract cycle. There are other benefits beyond savings that also result from procurement's influence, including improved quality and lower risk.

And yet, during the pandemic, only 9% of all CPOs have focused on increasing this number and only 5% have this figure as a top three reporting metric. Managing more spend should not be the CPO's sole focus, but it is the most direct means to expanding procurement's overall impact. Improvements can be made in managing the current spend, but most CPOs have essentially given up trying to expand their influence via new spend — simply, a lost opportunity.

Lost Opportunity: Reduced Sourcing

Sourcing and procurement professionals are living in interesting times, with a turbulent market caused by the pandemic, broad-based supply chain disruptions, and the emergence of rapid inflation. Sourcing professionals accustomed to driving innovation AND cost reductions from their suppliers with each successive renewal are dealing with an entirely new market paradigm.

Since customers will only bear some of the impact, CPOs and their teams will need substantial sourcing pipelines and fast and decisive execution to ease inflation's burn on enterprise financials.

Ardent Partners' research shows that competitive sourcing directly increases savings rates. And yet, the average procurement team's ability to increase its sourcing pipeline can be severely constrained by a host of factors across its talent, systems, and operations. For a majority of procurement teams, the amount of competitive sourcing conducted is less than what is needed. In fact, the amount of competitive sourcing actually decreased for the average procurement department last year, even as more CPOs prioritized the need to increase savings as a top goal.

Lost Opportunity: The Technology Gap

Today, a majority of CPOs look at technology as a key part of their overall operation, particularly as they are managing a more transient team (i.e., shorter tenures) that is likely to be working remotely. They also understand that gaining sizable investment to grow staff headcount remains difficult and competitive. It is why driving a digital transformation has been a major focus for CPOs in recent years. By automating processes and becoming more strategic, procurement departments are driving value well beyond what they did years ago, while the CPO role itself becomes more valuable and strategic to the greater executive team. Automated solutions have also helped procurement teams gain greater visibility into their processes by capturing and managing procurement data and converting it into intelligence. Leveraging that intelligence to make faster, more-informed decisions across the full scope of procurement operations is critical.

The successful users of supply management solutions prove year-in and year-out the value that technology can play in helping scale a procurement operation and maximizing its impact and performance. And yet, more than twenty years after the first procurement automation solutions were brought to market, a fully automated procurement department remains the exception and not the rule. Of all related solutions, only eProcurement and eSourcing have adoption rates approaching 50% in the market. Lack of automation across the source-to-settle process limits a procurement team's ability to maintain consistency and optimize operations and performance over the long term.

Lost Opportunity: The Proficiency Gap

Technology deployment and technology adoption are two different things. The existence of process automation tools does not mean they are utilized well or at all. Today, the average procurement department generally struggles to use its technology effectively.

Getting a team to consistently use technology to deliver dependable results is more difficult than it would seem. When CPOs were asked to grade their teams' level of proficiency in using current technology, only a sliver (4%) replied they were sophisticated users with systems that are highly adopted. And only a small group (11%) of procurement departments reported advanced technology usage by targeted users.

The Technology Paradox

When supply management solutions are well-deployed and used proficiently, they can serve as a force multiplier for procurement teams. High adoption and strong usage of automation tools are fundamental characteristics of today's Best-in-Class procurement departments (defined in Ardent Partners research as the top 20% of overall performers).

Despite the large number of successful technology-driven procurement transformations, an even greater number of organizations have been unable (or unwilling) to leverage technology for leading results. How can technology be so impactful for so many, yet hinder so many more?

There is no single reason why these solutions have not uniformly delivered on their promise. Plenty of blame can be shared among all the stakeholders, including the technology providers, procurement leaders, procurement teams, business users, and IT departments. The reasons for enterprise technology failure are numerous, but they are also well-documented.

Many procurement teams fail to optimize the use of their systems. And, there needs to be greater accountability by the procurement team and its leaders for this. Since most CPOs now speak of digital transformation and agility as cornerstones to their overall strategic plan, any evaluation of a procurement department must include a review of technology usage, proficiency, and results. A subpar or failing grade in any of these areas demands attention and corrective action. Ineffective and inefficient procurement technology infrastructures are unacceptable in 2022.

Predictive Procurement Orchestration: Opportunities Found

While the problems with today's supply management technologies are abundant and sizable, the solutions are fairly straightforward: (1)

design and use smart systems that simplify, eliminate, and fully-automate procurement tasks, (2) apply data science to large data sets to both prioritize those activities and set the strategy that drives them, and (3) utilize artificial intelligence to ensure that the system continues to learn from results and improve upon them. Straightforward, but not simple.

Predictive Procurement Orchestration ("PPO") attempts to do all of the above through a unique blend of data science, behavioral science, and machine learning to enable more procurement organizations to better utilize technology to scale operations and optimize results. Through usage, these autonomous PPO systems learn key patterns across the full procurement process and can develop/enable smarter processes that require less (or no) human intervention to improve efficiencies. By combining workflows with actual transactions, the systems can begin to anticipate and predict the steps needed to generate and deliver optimized management of addressable spend. Here are four ways that PPO can help transform procurement.

I. Expands Procurement's Reach and Influence on Spend

The key premise behind PPO's success is that if enough historical procurement activities, negotiations, and transactions (or outcomes) can be analyzed, patterns will emerge. A smart algorithm can be created to successfully predict future activities and their likely outcomes. There are literally thousands of examples of industries (and companies) that have been entirely reshaped by the use of data analytics to predict behaviors, tendencies, and outcomes. Whether it is the type of pitch a Major League Baseball pitcher will throw in a specific game situation, the number of social media users who will like and share a post, or the many oil companies that have dramatically improved their drilling success rates, big data analytics can be used to predict an action and generate a smarter response to or result from said action.

The predictive nature of a PPO system can drive efficiency across a procurement organization by identifying patterns to help reduce the amount of time procurement teams spend on tactical activities. For example, given the right data set, a PPO system could automatically convert a requisition to a purchase order, approve it, and route it to an optimal supplier. Suppliers are selected based on an analysis of historical orders, the weighting of line items, and current organizational buying preferences. The net result is that a procurement organization has the opportunity to increase the percentage of spend under its management without an increase in staff and other resources.

II. Drives Smarter Decisions with Contextualized Intelligence

As procurement organizations become more automated, the amount of data generated by system usage can grow exponentially. While the efficiency gains achieved by automation can be substantial, the larger opportunity for most organizations is the visibility and intelligence generated from system usage that enables more data-driven decision-making. Linking procurement data to direct decision-making is where top-performing organizations are focusing their efforts. Processes and outcomes can be improved when key information is presented directly within workflows. PPO solutions have the potential to deliver information efficiently by applying their machine learning ("ML") and artificial intelligence ("AI") capabilities to large data sets. This can support smarter decision-making by providing deep insights and data intelligence to system users. For example, a spot buying opportunity is more likely to be successful when it is packaged with a list of recent transactions and the prices paid for similar items/services. A better outcome is not guaranteed, but when the decision-making process is bolstered by relevant, accurate information, the odds of success are improved.

III. Enables Smarter Sourcing with Predictive, Autonomous Capabilities

Many studies have shown that individuals generally place more value on not losing than on winning. This is known as loss aversion and frequently leads to risk aversion. eSourcing tools have been shown to deliver consistently superior results compared to other negotiation methods. Nonetheless, one of the reasons eSourcing solutions are not more widely used is that they are perceived as professionally risky since there is inherent uncertainty in an eSourcing event's final results. The broad visibility that these events have within the procurement department and the larger enterprise only magnifies the concern.

The developers of PPO solutions believe they can bypass these and other specific challenges that reduce the number of competitive or active supplier negotiations. Their approach is to combine classic behavioral science strategies with machine learning that analyzes historical purchases, present-day market conditions, and current user requirements to autonomously generate and present desirable offers and counteroffers to suppliers that have a higher likelihood of acceptance. By analyzing supplier pricing and historical purchasing trends, PPO systems can begin to autonomously generate offers to suppliers that align with the organizational goals of the transaction on multiple line items (i.e., lowest price, DE&I targets, quality, etc.). If they choose to do so, buying teams can review, modify, and approve the system-recommended offers (and counter-offers) before they are delivered to the suppliers. The data-driven nature of the negotiation eliminates the time and tension involved in developing a negotiation strategy and empowers the team to increase this activity. This approach can also be a powerful way to influence more tail spend and minimize maverick spend in a period of high inflation.

IV. Accelerates Activity (and Results)

At a higher level, PPO's AI capabilities can help transform a procurement department into a more agile and strategic hub of efficiency. Artificial Intelligence leverages algorithms and tools that not only drive procurement processes without human interface, it enables these processes to continually improve. In essence, AI can be used to free the procurement staff from tactical tasks and allow the team to focus on its more strategic work.

In the case of sourcing, a PPO solution can use AI to read, understand, and make independent decisions by automatically proposing preferred buyer outcomes and providing instant feedback to suppliers during a negotiation while continuing to improve upon them. AI-driven technology can operate independently, with procurement staff providing limited or no tactical intervention and management oversight only as needed or preferred, driving strong results at a faster pace.

Summary

Up to this point in procurement's history, efficiency, compliance, and basic execution have been paramount. But procurement organizations that were designed solely to control both spend and stakeholders are not built to last. Rather, it will be those agile, data-driven organizations that can sense, adapt to, and predict the dynamic changes and growing complexity within their departments, enterprises, and supply chains that will become the true industry standouts. Today, many procurement teams struggle to draw deep value from their technology investments. These same groups have acknowledged their challenges with Big Data management, but they also understand the large opportunities that must be improved, and the role technology will play in aiding those endeavors. More specifically, a majority of procurement leaders (61%) believe that supply management technology, predictive analytics, and data science applied to procurement's Big Data will have a significant impact on their operations over the next few years.

This naturally opens the door for the emerging category of Predictive Procurement Orchestration to utilize AI/ML capabilities to build upon a procurement organization's current set of systems and processes, and help it accelerate its transformation – from basic automated processes to more autonomous operations – across the scope of its operation. The ability to consistently leverage new technology innovations can create a significant competitive advantage, and PPO has the potential to challenge the conventional wisdom of what is possible for procurement and start a new chapter.

About the Author:
ANDREW BARTOLINI, FOUNDER & CHIEF RESEARCH OFFICER, ARDENT PARTNERS

With 23 years in the industry and 13 years leading the charge at Ardent Partners, Andrew Bartolini is a globally-recognized expert in sourcing, procurement, supply management, and accounts payable.

As the Chief Research Officer at Ardent Partners, Andrew oversees all research and client programs including the annual State of the Market and Metrics that Matter eBook Series', Technology Advisor Reports, Ardent's monthly webinar series, as well as its in-person and virtual CPO Rising Summits.

Andrew is also the publisher of CPO Rising, the news and research site for Chief Procurement Officers and other procurement leaders (www.cporising.com) and the host of the industry's exciting new podcast, Procurement Rising.

Advisor to corporate executives and leading solution providers alike, Andrew is a sought-after presenter, having lectured and presented more than 525 times in nine different countries. Over the past decade, Andrew has benchmarked thousands of enterprises across all facets of their sourcing, procurement, supply management, and accounts payable operations and his research has been part of the Supply Chain Management curriculum at several US universities.

He actively covers the technology marketplace as well as trends in sourcing, procurement, supply management, and accounts payable and has been published or quoted in leading business publications including The Wall Street Journal, Business Week, Investor's Business Daily, Forbes, and Fortune, as well as the major trade publications focused on accounts payable and supply management.

Prior to becoming an industry analyst, Andrew developed, packaged, deployed, and used supply management solutions on behalf of enterprises in the Global 2000 while working for several prominent spend management solution providers. Additionally, his experience in strategic sourcing (where he managed sourcing projects totaling more than $500 million in aggregate client spend), business process transformation, and software implementation provides a "real-world" context for his research and writing.)

Andrew's post-MBA work started in management consulting and investment banking where he structured, managed, and advised on large capital market transactions. Andrew began his professional career running a homeless family shelter in Los Angeles. He welcomes your comments at abartolini@ardentpartners.com or 617.752.1620.

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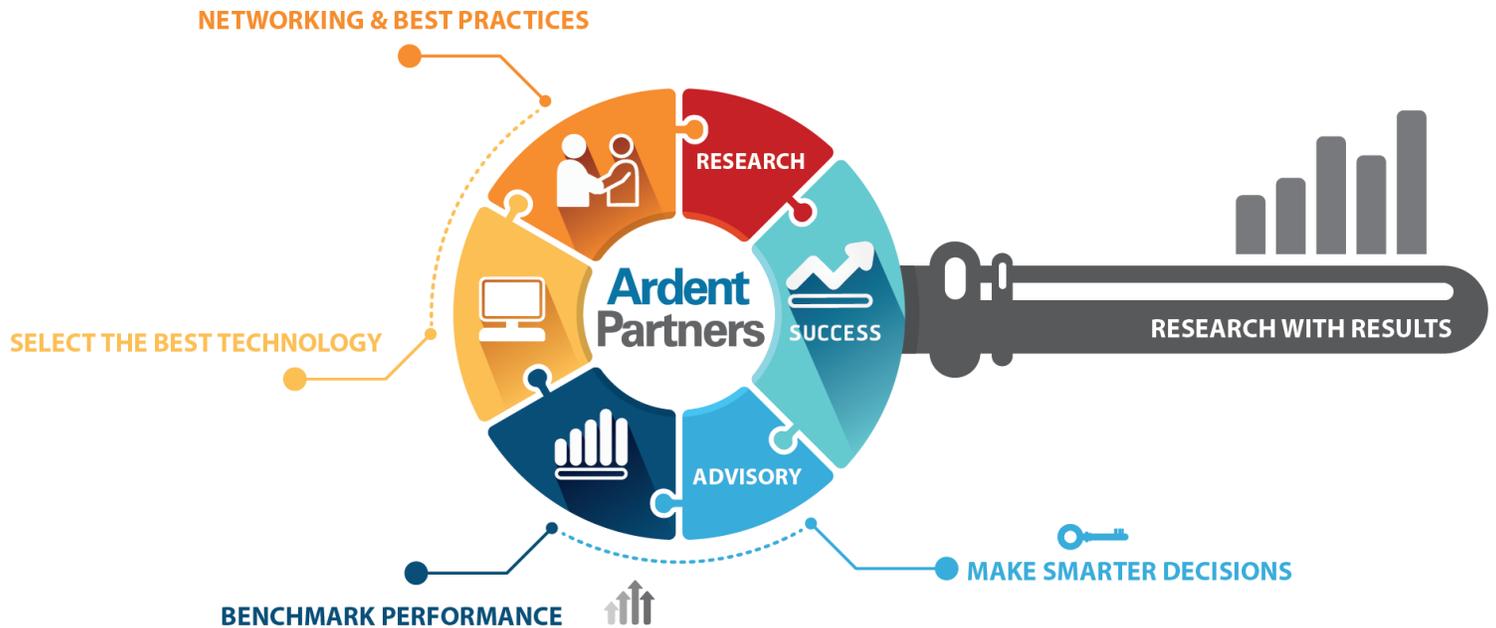
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