AT**Kearney**

Disruptive Procurement

Reinventing and Transforming the Procurement Function

A radically new approach that focuses on an entire product or service line can boost the savings performance of companies in a disruptive way.



Use a Beginner's Mindset to Redefine Procurement

Procurement is a relatively new discipline. It really only caught attention in 1985 when General Motors' European Opel division launched "Global Sourcing" under the leadership of Ignacio López. The timing could not have been better, since only a couple of years later the former Communist bloc opened up and added one billion people to the global workforce. Initially, this brought prices down and, a little later, led to an unprecedented period of global economic growth.

In those heydays, procurement savings were a safe bet. Tumbling labor costs gave suppliers plenty of wiggle room, and the promise of more business sweetened the pill even in case of hefty concessions. Consequently, most procurement organizations made do with relatively simple tools such as requests for proposal (RFP), online auctions, and low-cost-country sourcing.

Today, after multiple rounds of cost reductions, customers and suppliers find themselves in a markedly different world. Demographics in China have become unfavorable, and the cost of Chinese labor has more than quadrupled over the past 15 years. Growth rates are slowing or stagnating around the world, and nativist politicians in Europe and the United States are promising to roll back globalization.

In this new reality, even a diligent procurement organization will not have much leverage over suppliers. Procurement professionals will have analyzed supplier markets, factor costs, and competitive prices, and they may even have benchmarked the cost elements that are critical for providing their products and services. But all this research—which we call desktop procurement—will not yield significant savings, as suppliers are operating on shaky ground. Pushing them any further may even lead them to cut corners in dangerous ways that could compromise product quality, delivery reliability, or working conditions.

To overcome the limitations of desktop procurement, seasoned professionals need to become curious and open-minded like a beginner. The well-known Zen Buddhist monk Shunryū Suzuki wrote, "In the beginner's mind there are many possibilities. In the expert's mind there are few." We encourage procurement professionals to examine established beliefs, facilitate innovative solutions, and even challenge what is core.

Get out there

Over the past 20 years working with procurement teams, we have been struck by how little time procurement people spend trying to understand the value creation processes of their suppliers. It didn't matter whether the client was American or European, whether it was in the manufacturing or the services sector, whether it was a giant global corporation or a German Mittelstand player. In almost every case, key procurement people spent most of the time at their desks. Unfortunately, there is no way to understand what your supplier is actually doing just by sitting at your desk and reading a lot.

Let us be clear about one thing: we are not blaming procurement people for not going out to suppliers more. First, in the past it simply was not necessary to do so as prices were coming down anyway and desktop procurement did deliver positive results. Second, budget constraints regarding travel made trips to suppliers look questionable or even frivolous. Third, without prior knowledge it is not easy to reap the full benefits of a factory walkthrough. To a novice, a well-run iron casting facility may look messy and poorly managed, while a surface mount technology line with 40 percent slack may impress with shiny and clean equipment.

Grab a coffee (or a screwdriver)

Even more worrisome than the fact that procurement people rarely get out to suppliers is that many of them don't really understand the products or services they are buying. In the most extreme cases, procurement is simply buying article numbers with zero knowledge of the actual content. So although procurement has largely earned a seat at the table with higher-profile business functions, the discussions often remain abstract and do little to help it better understand how value is created for customers.

A little bit of curiosity can go far, and there always is a way to better understand what you're buying. Grabbing a coffee and talking to engineers, marketing people, or others in your own company can work wonders. Trade journals and online courses offered by universities are also valuable sources of critical knowledge. In cases where the product being bought is affordable and physically manageable, a screwdriver can become a powerful procurement tool. Of course, many times it's not so easy to peek inside a product.

A Radically New Approach to Procurement

"Get out there" and "Grab a coffee (or a screwdriver)" are the two main axes that define the Disruptive Procurement approach for the 21st century. More formally, we call the axes "Knowledge of how suppliers create value for us" and "Knowledge of how we create value for customers" (see figure).

Figure

Disruptive Procurement framework

High	3	Function analysis	Core cost engineering	Disruption	
Knowledge of how we create value for customers	2	Design for value creation	Collaborative business development	360° supplier development	
	1	Desktop procurement	Supplier fitness program	Prescriptive value creation	
Low		X	Y	Z	
		Low Hig Knowledge of how suppliers create value for us			

Source: A.T. Kearney analysis

The underlying assumption of the Disruptive Procurement framework is that the more you know about both axes, the more effective you will be in dealing with suppliers and the higher the savings you will achieve by focusing on entire product or service lines. Let's test this hypothesis before we dive deeper into the framework:

- High knowledge about how suppliers create value for your company allows you to spot shortcomings in suppliers' value creation processes. Acquiring and applying this knowledge involves several stages. The first is seeing many suppliers and taking what is good at one supplier and applying it to the others. Be careful, though, because sometimes entire industry clusters suffer from similar performance issues—issues grounded in practices that were perceived to be good because everybody followed them. Bringing in insights from other industries can help overcome this. For example, asking "How would Toyota produce this part?" is always a good idea when it comes to discrete manufacturing. Helping the supplier to identify and realize opportunities in its value creation processes opens new chapters in the relationship that can lead to savings and other benefits.
- Similarly, understanding how your own company creates value for its customers helps you identify products and services that have been specified to ensure performance, quality, and other considerations—but at a cost that exceeds their value to your customers. Products that are close to impossible to assemble and that have over-specified or redundant components are legend. Helping a supplier to relax or optimize specifications reduces cost and allows the supplier to pass along the savings without eating into profit margins.

The Disruptive Procurement framework breaks down into a three-by-three matrix. Its nine boxes stand for different combinations of "Knowledge of how suppliers create value for us" and "Knowledge of how we create value for customers." In the lower-left-hand corner, desktop procurement characterizes a typical procurement organization that is busy conducting all kinds of analyses to determine proper price levels, but without much concrete knowledge. This would also be the area of lowest savings. Disruptive thinking resides in the opposite corner of the matrix. Here, a highly knowledgeable procurement organization challenges industry beliefs to define breakthrough products and services delivered with pioneering processes at a radical cost advantage for both the customer and the supplier.

Let us now dive deeper into the nine boxes for better understanding.

X1. Desktop procurement

Desktop procurement encompasses all the good processes, frameworks, and tools that have made procurement successful over the past 30 years. In that old paradigm, a lot of energy is poured into analyzing the spend, assessing the supply market, and developing lots of ideas to get higher savings from suppliers. In the past, this was done with homegrown tools such as Excel spreadsheets. Today, software companies offer a plethora of procurement tools comprising areas as comprehensive as source-to-pay workflows, category strategy development, and idea implementation management. With yet another analysis being just a mouse click away, procurement professionals can easily get absorbed by these tools and end up spending most of their time looking at their screens.

Nothing is inherently wrong with desktop procurement and, in fact, it is a very necessary foundation for any subsequent work. The only problem is that in the new low-growth global economy, desktop procurement has become a pretty blunt instrument to achieve meaningful results. In the best case, it will deliver some savings; in the worst case, suppliers that are

facing the choice between losing substantial revenue if they don't give savings or making a loss if they do, may go for a dangerous third option, which is to cut corners.

Search the web and you will find many stories of suppliers using adulterated ingredients or resorting to unacceptable practices such as unsafe working conditions or child labor. A less visible but equally dangerous way of cutting corners is to stop investing in the future. Suppliers are an important source of innovation and once all heads in R&D are cut, the flow of good ideas comes to an end.

Y1. Supplier fitness program

A supplier fitness program is the logical next step after having a good desktop procurement in place. Looking back at Opel's original 1985 Global Sourcing project, this is what Ignacio López did after the first cost reduction rounds with suppliers. He took a team of seasoned manufacturing people and had them spend quality time in the factories of suppliers. They analyzed production processes in detail, identified shortcomings, and helped suppliers to increase their efficiency. The resulting savings were shared between the supplier and Opel. The automotive industry has embraced this approach enthusiastically. Toyota is the shining example in this regard and has a highly structured program in place to ensure that all its suppliers are fully compatible with its Toyota Production System (TPS).

To overcome the limitations of desktop procurement, **seasoned professionals need to be curious and open-minded.**

We are not suggesting that every company develop its own version of TPS. What should be expected, though, is that category managers go out to their suppliers, understand their value creation processes, and guide them in conducting programs to cut costs, reduce inventories, and improve quality. This is by no means limited to the manufacturing sector. Think of an airline, for example. Ground handling, which includes services such as ticketing and baggage handling, is a major cost element. Rather than trying to squeeze rates once again, airlines achieve much better results by developing expertise in ground handling and highlighting inefficiencies when they see them.

We have warned about how tools can end up taking on a life of their own in a pure desktop procurement approach. To be clear, we are not opposed to using analytical tools—quite the contrary. What we are advocating for is a smart deployment of the right tools that, even more importantly, tap into the right data sets. Big data analytics and industry 4.0 concepts are the foundational pillars of many of the most powerful supplier fitness programs. There is a vast array of opportunities to press technology into the service of improved supplier fitness, ranging from simple predictive maintenance tools to extensive ecosystems that integrate even our suppliers' suppliers.

Z1. Prescriptive value creation

Prescriptive value creation takes knowledge of supplier value creation to the extreme. Rather than helping the supplier to improve its value creation processes, it introduces a process that is

new to the supplier. A common form of prescriptive value creation is outsourcing. A company deems certain elements of its operations no longer core and looks for a third party that is suited to host those operations. Suitability often just means that the third party is located in the right region with the right labor cost. The third party does not necessarily need to have concrete experience, provided it has the required managerial skills to master new challenges. In those cases, the value creation processes are wholly prescribed by the customer.

Apple can be considered best practice in this space. When Apple develops a new product such as the iPhone it does not stop at industrial design and product architecture, as many of its high-tech competitors do. Instead, Apple takes a broader view that encompasses which materials to use, how to work with those materials, how to assemble the product, and how to prepare it for shipment to the end customer. When working on the chassis for its MacBooks and iPads, Apple dedicates many hours of highly skilled individuals to understand the physical properties of different aluminum alloys and ways to shape them suitably. The outcome of these studies may be counterintuitive to the industry. For example, Apple determined that a technology previously applied to relatively small series of high-precision components, computer numerical control (CNC) machining, is the perfect way to make chassis. In a relentless effort, Apple's internal labs got the technology ready for mass production, and the company ended up buying most of the CNC machining equipment made globally between 2010 and 2012. These machines are now installed in the Chinese factories of Foxconn and other Taiwanese suppliers, which are responsible for operating them. The entire "knowledge of how suppliers create value for us" was developed and provided by Apple.

X2. Design for value creation

Design for value creation requires disciplined thinking. It is not enough to just define an element of a product or service that can successfully compete in the market. Rather, the product or service must also be specified in a way that the supplier says it is able to deliver efficiently and effectively. Design for value creation is a two-way street. The supplier must be forthcoming about its core competencies but also about areas that are outside of its core competencies. A supplier that is too hungry for business may grab whatever it can get and paint itself into a corner. At the same time, the customer needs to listen to the supplier. And this listening process must start long before business is actually awarded. Ideally, the suppliers get on board at the concept stage, when specifications are still fluid.

Design for value creation is not a new concept, but it has become much more sophisticated with the availability of big data and the possibility to conduct multivariable optimizations. Think, for example, of a gas pipeline project. Normally procurement's challenge is to optimize along the dimensions of price, quality, and time. A large-scale capex project such as construction of a gas pipeline, however, requires much broader thinking. Sourcing the pipeline itself seems rather simple—mainly construction work, tubes, and compressors. Less simple is the overall setup: different countries, different legislations and governments, highly variable export credit agency coverage, and construction work spanning several years (over which time prices can vary considerably). At one client project we worked on, a cross-functional task force from engineering, procurement, and finance teamed up with a specialized analytics group to find the optimum among all these variables. Thousands of different combinations had to be evaluated and the "best design" of the overall deal had to be found. This led to a significant reduction of the planned time horizon and to a significant cost decrease—quite unique for capex projects—compared to budget.

Y2. Collaborative business development

Imagine a customer and a supplier are engaged in a fairly mature relationship. They already collaborate on a supplier fitness program to upgrade the supplier's value creation process. At the same time the customer designs its products and services in a way that matches the supplier's competencies. When the customer and the supplier build on these two streams to define new, breakthrough products or services, we call this collaborative business development.

Daimler and Robert Bosch have a customer-supplier relationship that reaches back more than a century. Both are headquartered in the Stuttgart region, and both share a similar commitment to innovation and excellence. Over time, the product life cycles of both companies have largely converged. Daimler's Mercedes-Benz S-class cars routinely launch with brand-new Robert Bosch technology as a showcase for what can be done. Later, these technologies percolate to other Daimler car lines and to other carmakers. The strong alignment of product life cycles and product launches has greatly benefited both companies. Many of Bosch's products would not have materialized without Daimler as a launch customer, and Daimler's success can hardly be imagined without Bosch's technologies.

Z2. 360° supplier development

Short of acquiring a supplier, 360° supplier development is the most immersive way for a customer to interact with its supplier. Rather than focusing on particular aspects of the supplier's value creation process and product or service design, the supplier's entire business enters into the scope. Elements covered encompass the customer-supplier interface (activities often referred to as SRM and CRM), as well as the supplier's R&D, procurement, operations (for example, factories), and, in fact, its overall product or service architecture.¹ The ultimate objective of 360° supplier development is to make the supplier a much more capable partner that is able to provide better value for money.

Originally, 360° supplier development was largely limited to multinational corporations entering local markets. In the early 1960s, Unilever moved into the Austrian frozen food market. First it built a giant frozen food warehouse on the outskirts of Vienna. Since time from harvest to the frozen food warehouse needed to be as short as possible to ensure product quality, Unilever recruited local farmers to grow peas, spinach, and other vegetables. By deploying a massive program to introduce modern agricultural techniques, Unilever managed to transform a traditional farming region into a highly productive, specialized cluster of industrialized vegetable farms—without changing the established ownership structures. More recently, PC makers are deploying 360° supplier development to make their suppliers more competitive. In a market plagued by sluggish growth and surging labor costs in China, the location of most factories in the PC ecosystem, this is becoming a matter of survival.

X3. Function analysis

Where traditional cost-reduction techniques ask, "How can we reduce the cost of an item?" and then, "How can I do that for less?," function analysis asks, "What does it do?" It starts with a breakdown of the product or service into discrete elements. For each of these elements, the functions are listed, expressed in verb-object pairs consisting of active verbs and quantifiable nouns. As an example, the functions of a mounting bracket are to "support load" and "attach

¹ SRM is supplier relationship management. CRM is customer relationship management.

part." Each function is then classified into two buckets—useful (such as "support load") and harmful (for example, "adds weight")—and the cost of the product or service is allocated across the engineering system. Identifying elements of the product or services with unfavorable cost-benefit ratios highlights where to attack cost. Often, the most straightforward way to attack cost is to simply eliminate an element with high cost and harmful functions. With the elimination, its harmful function and its cost disappear. What remains is the task to teach the remaining elements how to fulfill the useful functions of the eliminated element. In manufacturing industries, this often requires deploying scientists; in service industries it requires raw creativity.

Samsung discovered a type of function analysis in the early 2000s. It was inspired by a school of thought originated by the Uzbek-born inventor Genrich Altshuller around 1950. His disciples in the Theory of Inventive Problem Solving (often referred to by its Russian acronym TRIZ) scored huge successes in the aerospace and defense sector, enabling the Soviet Union to keep up the space and arms race for decades with only a fraction of the budget available to the United States. Hiring entire groups of scientists and engineers conversant in TRIZ helped Samsung to leave its legacy of cheaply made Sony knockoffs behind and ultimately propelled the Korean chaebol to a leading position in the global consumer electronics market.

Those who apply Disruptive Procurement need to adopt an end-to-end perspective and combine it with **readiness to overcome industry thinking in a radical way.**

Y3. Core cost engineering

Core cost engineering takes away layers upon layers of ancillary functions that have piled up on products and services. It starts by asking, "What is the core function that the customer really expects?" Then it looks for the most efficient way to perform this function and, finally, adds minimal extra functions that are required to be able to actually sell the product.

Low-cost carriers started by asking this question and understood that the core function passengers really expected was to travel safely from A to B. Their willingness to pay for legroom, newspapers, meals, luggage space, and drinks turned out to be very limited. More recently, the shaving equipment industry is undergoing a similar transition. Over the past century, Gillette has held about 70 percent of the traditional razor blade shaving market. Gillette's products are fine, but they come with tons of marketing, packaging, and other overhead that drives up their cost. On top, the process of buying a razor blade in a drugstore, where they are often locked up in a glass cabinet, is less than delightful. Led by the Dollar Shave Club, several start-up companies are challenging Gillette's dominant market position. They provide a convenient web-based order process and offer high-quality replenishment razor blades in austere packaging at a fraction of Gillette's price. Harry's, one of these start-ups, has even vertically integrated by acquiring Feintechnik, a 95-year-old maker of high-end razor blades.

Is Disruptive Procurement the New Purchasing Chessboard or a Fresh SRM Approach?

Many readers may recognize A.T. Kearney as the firm that introduced <u>The Purchasing Chessboard</u> and <u>TrueSRM</u>. Our Disruptive Procurement framework differs from the Chessboard and TrueSRM in many ways:

- The first key difference between the three frameworks is in focus. While the Purchasing Chessboard focuses on a category and TrueSRM focuses on supplier interaction models, Disruptive Procurement focuses on an entire product or service line.
- The second key difference is in objective. The Purchasing Chessboard aims to achieve the highest possible sustainable savings, TrueSRM intends to
- achieve competitive advantage beyond just savings, and Disruptive Procurement tries no less than to reinvent the way things are done within an industry.
- The third key difference is how the frameworks are deployed. The Purchasing Chessboard can be introduced from the bottom up by procurement professionals who simply want to upgrade their skills. TrueSRM

requires broad cross-functional alignment to be effective. Disruptive Procurement works best if mandated by the CEO, as it leaves no paradigm unchallenged when fully deployed.

Z3. Disruption

Asking the question, "How would a disruptor who is not burdened by legacy thinking or any other constraints do this?" opens up the door to game-changing products or services. This approach requires top-notch knowledge of how suppliers create value for us and how we create value for customers. Those who apply it need to adopt an end-to-end perspective and combine it with readiness to overcome industry thinking in a radical way. They will need to focus on functions that really matter to customers, minimize life-cycle cost, eliminate non-value-adding components, design for manufacturing, configure an agile supply chain, and ensure disruptor performance in their own and supplier-owned factories.

Elon Musk is thinking like a disruptor and Tesla, one of his ventures, provides interesting insights. Tesla's model S was a shock to the automotive industry. Everybody expected the car to perform poorly in crash tests and in handling, but the opposite was true. Since there is no engine under the hood that threatens to penetrate the passenger compartment in the case of a frontal crash a couple of comparatively cheap and simple aluminum tubes perform better than complicated crash boxes in comparable large vehicles from Audi, BMW, and Mercedes. Similarly, heavy batteries in Tesla's sandwich floor make it behave more like a Ferrari than a four-door sedan. Even more worrying for traditional carmakers than the surprisingly good performance of Tesla cars is their electronic architecture. Tesla's model S has been dubbed a smartphone on wheels, and essentially it is. The majority of Tesla's people have a background in high-tech consumer electronics, and it shows in the car. Where others have arrays of switches and dials, the model S sports one large touch screen. Every Tesla is continuously online and receives software updates to keep it fresh.

Consumer electronics teaches people to deal with technology cycles of a year or less. Compare this to the automotive industry's typically multiyear technology cycles, which freeze their products in the past.

Getting Started

We expect many companies today to squarely sit in the desktop procurement box. This is the result of operating in a global growth market for two and a half decades. What leaders should do with the framework is to begin charting the future trajectory of their procurement function.

The first question to clarify is the ambition level for the product or service line in scope. Do we want it to become a disruptor? Do we have the management bandwidth, the cross-functional buy-in, and the shareholder mandate to go there? For many companies, pushing toward a supplier fitness program (Y2) or design for value creation (X2) may be a reasonable way forward.

There may be different trajectories by division, region, and product or service line. What will be common to all trajectories is that procurement people will apply the beginners' mindset, spend far less time at their desks, and dedicate a lot more time to visiting suppliers and interacting with internal stakeholders (maybe with a coffee in one hand and a screwdriver in the other).

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