The Strategic Sourcing Lifecycle:
A Brief Introduction

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Chapter 1
An introduction to Strategic Sourcing

Definitions of Strategic Sourcing

An institutional procurement process that continuously improves and re-evaluates the purchasing activities of a company.
Wikipedia

An organized and collaborative approach to leveraging targeted spend across locations with select suppliers that are best suited to create knowledge and value in the customer-supplier interface.
Institute for Supply Management (ISM)

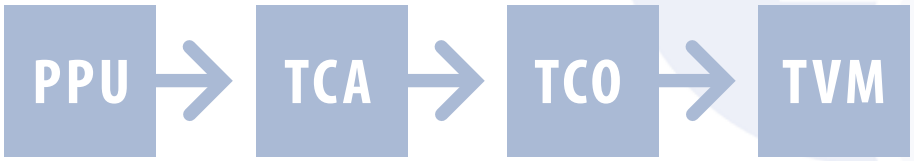
A complex commercial process requiring extensive knowledge and competence that can be defined as satisfying business needs from markets via the proactive and planned analysis of supply markets and the selection of suppliers with the objective of delivering solutions to meet pre-determined and agreed upon business needs.
Chartered Institute of Purchasing and Supply (CIPS)

Regardless of the specific definition that is chosen, strategic sourcing is a process that is designed, and employed, to maximize the value of each purchase made by the company – value that can come in the form of savings, value-add services, risk-minimization, or better supplier relationships. More importantly, it is an evolving process that matures and adapts as the needs of the organization change.

The Evolution of Strategic Sourcing

Strategic sourcing has evolved considerably over the last two decades, thanks largely to the emergence of new software platforms that enable better processes. These new platforms, which started out as simple e-Negotiation Platforms, have evolved into full end-to-end CLM (contract lifecycle management) and SRM (sourcing relationship management) enhanced Sourcing platforms that support the entire strategic sourcing lifecycle. These new platforms allow an organization, that makes the effort, to advance quickly from the classic three-bids-and-a-buy sourcing process, that was largely manual and used fax and e-mail to conduct simple bidding, to a modern value-focused complex tender sourcing process that looks at all costs, benefits, and risks across all viable vendors locally, regionally, and globally. (The reader who is interested in the evolution of the sourcing platform is referred to Appendix C.)

Every successful organization goes through a similar sourcing journey on its way to becoming a best-in-class value-focused Sourcing organization capable of managing, and extracting, considerable value from complex global tenders. This journey, which consists



of four stages and centers around the cost model used by the Sourcing organization, is briefly described below, and the interested reader can find more details on the stages in Appendix B.

Stage 1: Price Per Unit (PPU)

In the mid twentieth century, Sourcing was primarily a back-office function tasked with acquiring the goods needed by Engineering, Maintenance, Accounting, etc. Sourcing, which was typically staffed by individuals with little or no training in Operations Management or Purchasing, typically fulfilled this task by ordering from a catalogue and focused on just getting the best-price, which was traditionally defined as the lowest price per unit as freight (cost) management was typically Logistics' responsibility. (On the indirect side, services were typically negotiated based on an hourly service rate.)

This worked well when everything was ordered locally or regionally, but with the rise of global sourcing in the 1980s, freight costs started to rise significantly and the per unit cost savings was often zeroed out by the increased freight costs.

Stage 2: Total Cost of Acquisition (TCA)

When the expected savings failed to appear on the bottom line because the rise in freight costs cancelled out the per unit cost savings, many Sourcing organizations progressed to Total Landed Cost (TLC) models that included freight, and then quickly replaced this model with a Total Cost of Acquisition (TCA) model that also included import and export duties, temporary storage costs at docks and cross-docking facilities, surcharges, and any other costs associated with getting the product to the warehouse.

On the indirect side, companies started to think about the expenses that went with those services they sourced by the hour or the day. Specifically, how much would the consultancy or service provider be charging in expenses if they had to fly resources in, put the resources up in a hotel, feed the resources, and so on.

Organizations that moved to TCA tended to fare much better than organizations that still focused on PPU, however, these organizations still left money on the table and, sometimes in their pursuit of the lowest cost, increased operational risk by sole-sourcing for a critical product or service. When organizations started to realize that only looking at direct up-front costs still left money on the table or when these organizations were burned by sole-sourcing to new suppliers who were unable to meet demand in the time-frame required, they had to evolve their Sourcing model again.

Stage 3: Total Cost of Ownership (TCO)

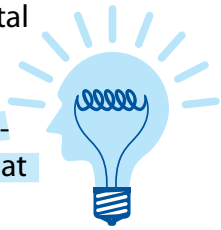
An organization that approaches sourcing from a total cost of ownership approach (TCO) attempts to quantify the overall total cost of each unit of raw material or product acquired in a manner that allows the sourcing analyst to compare bids in an apples to apples fashion. The sourcing analyst will look at the costs throughout the organization's sourcing, production, and sales lifecycle and take into account all direct sourcing costs, indirect sourcing costs, and quantifiable market related costs related to the purchase and then

compute an adjusted total ownership cost for each unit of product or material acquired. Or, in the case of indirect services, the organization will not only look at the cost per hour and the associated overhead, but the relative productivity. For example, while an expert may command more per hour, if the expert can get the work done in half of the average time, that's still a significant amount of savings.

However, while TCO is significantly better than TCA, it is still very cost centric and can cause an analyst to overlook value-add, joint innovation, and risk mitigation opportunities that other, potentially strategic, suppliers could bring to the table.

Stage 4: Total Value Management (TVM)

Best-in-class organizations make Sourcing decisions using a Total Value Management (TVM) philosophy. In total value management, an organization quantifies the overall total cost of each unit available to acquisition, but then measures it against the overall value of the spend category as it relates to the organization's sourcing strategy and supply management goals. TVM allows a Sourcing Professional to determine the highest value-to-cost ratio of a spend category through the use of integrated decision optimization that aligns spending plans with the organization's overall sourcing goals.



Unlike TCO, which can sometimes be achieved through a normal tender with an advanced bid comparison model with appropriate ratings and normalizations, TVM is only achievable through a complex tender that takes into account all of the costs and expected benefits that come from better performance, joint innovation, and risk reduction.

The 4-Phases of the Sourcing Process

Now that the evolution of strategic sourcing has been reviewed, it is time to discuss the basics of the strategic sourcing process. Proper strategic sourcing is a four-phase, multi-step process that starts with an identified opportunity and ends with identification of the next opportunity and goes through the planning, sourcing, execution, and analysis stages. Good sourcing doesn't just happen, it is planned. It takes strategy, hard work, analysis, fact-based negotiation, careful execution, performance monitoring, and incident resolution.

The sections that follow will overview each of these four phases and their primary contributions to the strategic sourcing lifecycle in detail. A more in-depth discussion of the strategic sourcing lifecycle and each phase can be found in Appendix A.

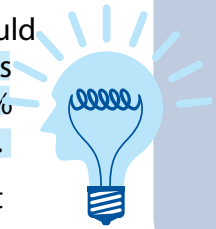
The Planning Phase

The first step of any new project is proper scoping and planning. Technology provides a new tool box, but the carpenter still needs to choose the right tools for the job, which happens with proper planning.

The planning phase generally consists of the following activities: establishing the business case, selecting the right team, assessing the risks, and identifying the right strategy – which should include identifying the exit conditions, outlining a project management and execution plan, and, most importantly, producing detailed specifications and requirements.

The Business Case

Before a considerable amount of time is invested in pursuing a potential savings opportunity, the opportunity should be real and the dollar value of the opportunity should be significant. It's not a matter of percentages, but a matter of hard dollars. A 2% savings on a 100M category is only 2M, a 10% savings on a 20M category is still only 2M, but a 5% savings on a 80M category is 4M, the best opportunity from a balance sheet perspective.



Generally speaking, Sourcing should pursue the largest savings opportunity first as most organizations still measure Sourcing primarily on cost savings. The only exceptions are generally those categories where the organization has been experiencing, or is at risk of experiencing, regular disruptions; where consolidating the supply base to suppliers of other critical components would simplify supply base management and reduce administrative and process overhead; or where there is the potential to source value-add services with a product-based category and either save on a related services category or decrease the cost of organizational service offerings.

Team Selection

Once the business case for the sourcing event has been validated and before serious planning begins, the first step is to select the right team. Sourcing becomes strategic as the result of the right plan, which is created by those with the right knowledge and ability. Strategic sourcing generally requires deep category knowledge, expertise in proper sourcing processes and technology platforms, negotiation, contracting, and relationship management. As a result, a typical sourcing project will require, at a minimum, a buyer, a category expert from the internal category client or stakeholder organization that controls the budget, a representative from legal, a supplier relationship/account manager, and a representative from the organization that will be using or selling the product or service.

Risk Assessment & Contingency Planning

The goal of this phase is to identify the risks associated with the category, the current supply base, and the potential supply base. Risks could include raw material shortages, hazardous chemicals, logistics challenges, and disruptions due to natural disasters. The risks, their likelihood, and the organizational impact if any of the risks materialize must be well understood before the strategy is selected. If the category is critical, and disruptions could be costly, then mitigations may need to be undertaken as part of the sourcing project.

Strategy Formulation

Depending on the market conditions, that would have been identified in the analysis phase, the category characteristics, that would have been expounded by the category experts, and the category risks that were identified during risk analysis, the strategy could be an auction, a multi-round weighted RFX followed by negotiation with the highest ranked bidders, or a multi-round RFX backed by sophisticated decision optimization

between rounds to identify the best solution to the complex tender. There is no simple rule that can be used to quickly sort events into different strategy buckets. Moreover, the right strategy for a category can change from one event to the next as the market conditions change.

For more information on a methodology that can be used to identify a sourcing strategy, see the section on the Kraljic Portfolio Purchasing Model in Appendix A.

Exit Plan Selection

Once the event strategy is selected, the next step is to decide upon a contract exit strategy. It is not unusual for even the best laid plans to go awry for various reasons. Consumer demand could drop for reasons beyond the organization's control, the relationship with the supplier might not go as planned, or maybe the supplier is consistently late with deliveries.

The organization needs to understand when it might need to get out of an agreement, and make sure clauses are included in the contract that allow it to get out of the contract if those situations do arise. If these situations are not identified up front, they will not be addressed during negotiations and contract drafting, and nothing will be able to be done after the fact.

Project Management & Execution Plan

The final step of the planning phase is the project management and execution plan. In this phase the senior project manager will put together a sourcing plan that will be followed in the sourcing and execution phases.

The Sourcing Phase

Once planning is complete, the actual sourcing begins. When executed properly, this phase starts with contract drafting and ends with contract signing, even though contracting is only a small part of the overall strategic sourcing project.

Contract Drafting

While contract drafting typically does not precede the beginning of the RFX process, in many strategic sourcing projects, it should. The act of drafting a blank contract with everything but the supplier specifics, product and service identification codes, and prices helps the sourcing team put into perspective exactly what they are seeking as a successful outcome of the sourcing project.

The contract draft should include all of the organization's standard terms and conditions as well as all of the specific terms and conditions (T's and C's) that will be needed to make the sourcing project a success. The reason that the T's and C's should be complete is that a well-formed RFX process provides critical information to suppliers up front and makes the suppliers aware that they will need to be able to meet mandatory terms, and agree to them during contract negotiations, if they desire the organization's business.

Supplier Qualification

The next step is to identify potential suppliers and qualify them for the sourcing event. Supplier qualification will typically take the form of a Request for Information (RFI), which could be conducted over multiple phases, that will ensure that the supplier will be able to provide the necessary goods and services, at sufficient levels of quality, in the desired timeframe, and in a manner consistent with organizational policies, brand, and culture.

A proper supplier qualification process, while time intensive, is important as it insures that every supplier invited to bid is capable of meeting organizational needs and once an award has been made, the focus can be on simply negotiating the final terms and conditions of the deal and not manufacturing, delivery, or service capabilities.

Invitation to Tender Package and Supplier Notification

The next thing to do is to invite the suppliers to bid. This is more than just sending the suppliers who have been selected to bid a congratulatory invite. The invitation should congratulate the supplier on making it through the qualification process, give the supplier constructive feedback on areas where the supplier appears to be weak and may need to improve, provide the supplier with a complete description of the products and services being put out to bid, and notify the supplier of all of the mandatory terms and conditions that will need to be agreed to. The invitation includes a full invitation to tender package that also lays out the sourcing process that will be followed and the initial timeline along with the process that will be followed when changes to the process or timeline are required.

RFX and Tender Evaluation

Regardless of the sourcing strategy, every sourcing project starts with a request for proposal, quote, or bid. If the strategy is an (e-)Auction, the initial bids will be used to seed the auction which will be run according to the specifications provided to the participants. If the strategy is a multi-round negotiation, the initial bids will be evaluated, feedback will be provided, and a subset of suppliers will be invited to bid again. Bidding rounds will continue until only a handful of suppliers remain or preferred suppliers for negotiation have been identified.

(e-) Negotiation

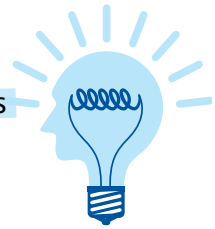
Once a set of suppliers have been selected for an award, negotiation begins. Depending on the sourcing strategy, the negotiation will either take the form of an online auction or in person negotiations, which might be backed by the results of an optimization model that is run between negotiation rounds. Negotiations will continue until both parties reach an agreement.

Contract Award

When negotiations are complete, a contract will be signed and the execution phase of the sourcing process will begin. Once the contract is signed, the first step is to enter it into the contract management system and insure that the obligations for both parties are tracked, the updated price lists are pushed into the sourcing system, and any important contract related events are captured in the contract timeline metadata.

The Execution Phase

Once the sourcing phase is complete, the execution phase begins. If planning was thorough, sourcing was deliberate, and the suppliers are focused on mutual success, the total time required by the senior buyer in the execution phase over the course of years will be less than the time required during planning and sourcing. However, this time is still critical to ensure success. Success depends on catching, and correcting, minor issues before they balloon into big problems that result in major supply chain disruptions.



Task Management and Workflow

A typical contract for goods will consist of verification of insurance and / or certification requirements, regular orders, inventory reviews and order adjustments, quality reviews, supplier performance reviews, and rebate/return recovery at pre-defined times and intervals. If critical insurance or regulatory certificates are not provided in a timely fashion, this could place the organization at significant risk of financial liability; if too many units are rejected by the warehouse in an order, quality could be at risk and an investigation is required; and if the overall supplier scorecard drops into the yellow warning zone, an in-person review, discussion, and jointly agreed upon correction plan will be required.

Change Management

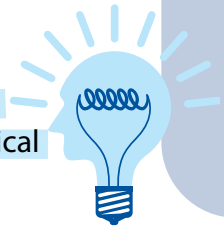
As previously indicated, even the best laid plans can go awry for reasons that cannot be predicted or prevented. For example, if an organizational competitor wasn't as meticulous in their sourcing process and selected a risky supplier who went out of business, a lack of availability of that competitor's product could cause a surge in demand for the organization's product. As a result, Sourcing will need to ramp up inventory quickly, which could require all of the suppliers to add a third shift and expedite delivery through air-freight. Since air freight is considerably more expensive than ocean freight, the organization may find itself in the position where it has to negotiate new, temporary, air-freight logistics contracts and bear additional costs in the short term. This is just one example where a good change management process is a critical part of execution. A smart Sourcing organization is prepared for any change.

Performance Management

One of the first actions that the senior buyer should take once the contract has been signed and set up in the contract management system is to define the supplier scorecard.

This will need to be monitored on a regular basis to not only ensure that the supplier is performing up to expectations but to detect potential issues early so that they can be corrected and resolved before they manifest into big problems.

Relationship Management

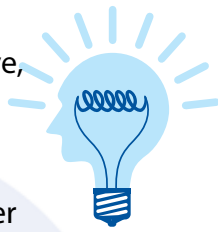


With all of the focus on the physical, financial, and information supply chains by today's strategic sourcing solution providers, it's easy to forget that despite all of our technological progress, supply chains are still managed by people. People control the machines that produce the goods, people control the flow of money and people input the data that modern supply management systems turn into information and, hopefully, actionable insight. As a result, it's important that the relationship is appropriately managed.

Risk Management

A key step in the planning phase is risk assessment and contingency planning. The risks that were identified could include, but not be limited to, financial risks such as supplier insolvency, natural disasters such as earthquakes, raw material shortages due to export restrictions, and socio-political risks such as worker strikes. Even though some of these risks are not preventable, some can be predicted and others can be detected as soon as a related event occurs. That's why a key part of the strategic sourcing lifecycle is continually monitoring news and internal data sources for risk indicators and evaluating such indicators as soon as they are detected to see if mitigating actions, defined during the planning phase, need to be taken to prevent a supply disruption

Formal Performance Review



Depending on the contract length, one or more formal, sit-down, 360-degree performance reviews, where both parties give one another an open and honest evaluation of their performance over the course of the contract with the goal of helping each other improve, will be required. These reviews are critical not only because it helps the buyer make better decisions during the next sourcing cycle, but also because it helps both the supplier and buyer improve. The supplier can take the feedback and improve their processes, products, and service offerings to be of more value to the buyer and the buyer can learn what they can do to make their suppliers more successful, and as a result, their own organizations more successful.

Expiry / Renewal Management

Expiry and renewal management is a critical part of every contract, regardless of whether the contract expires or auto-renews. If the contract expires and it is for a critical product or service that could put the organization's primary revenue stream in jeopardy if supply gets interrupted, it is critical that Sourcing either extends the contract or gets a new contract in place before the current contract expires. If the contract is evergreen and automatically

renews without written cancellation, this could be even more damaging if it renews with prices that are considerably above market cost or for products that are now out of date.

The Analysis Phases

When the contract is over, it's time for the analysis phase.

Formal Review

The first part of the analysis phase is the formal review. Did things go according to plan? How much of the expected savings materialized? What went wrong? What could have been done better? What lessons were learned and what should be changed next time? Unless a formal review is conducted that identifies the root causes of any performance issues and specifies potential corrective actions, the organization will be doomed to repeat any mistakes it made and execution will not improve in the future.

Spend Analysis & Opportunity Assessment

After the formal review of the Sourcing event is completed, the next step is for the organization to do a spend analysis on the category that was sourced where the organization looks at how much was spent per unit of product or service acquired, how much it would likely pay for those same products or services if it went back to market, and the magnitude of the opportunity that could be realized in a successful strategic sourcing event. If the result of the analysis is that going back to market would not result in any additional savings or could even result in higher costs, then the best strategy for the organization to follow would likely be to re-negotiate with the incumbent supplier and try to keep the organization's costs flat or almost flat.

Opportunity Selection

Once the spend analysis and opportunity assessment has been completed, the buyer will select one or more categories for sourcing and begin the sourcing cycle anew. The categories will generally be selected based upon expected value measured against expected effort to maximize use of organizational resources, but sometimes strategic categories will take precedence. Strategic sourcing success often depends on selecting the right project at the right time.

Chapter 2

Identifying a Strategic Sourcing Project

Before the strategic sourcing lifecycle can begin, an appropriate project needs to be identified. This project will generally revolve around a category, although it could be focused on a single consumable, such as a product, component, raw material, or service if the single consumable is high-dollar or very strategic to the organization.

However, not just any consumable is an appropriate choice for a strategic sourcing project. Generally, only those consumables that represent a real cost saving or value generation opportunity to the organization is appropriate for a strategic sourcing project. This chapter defines the different types of opportunities available to the organization and how a senior buyer or analyst will go about identifying them.

Defining an Opportunity

There are three primary types of opportunities that define good strategic sourcing projects: cost reduction opportunities, cost avoidance opportunities, and revenue generation opportunities (which typically materialize as a result of value-add opportunities).

Cost Reduction

The primary reason companies take up strategic sourcing is to reduce costs. The only way to reduce costs without sacrificing quality or customer service is typically to strategically source categories with real cost savings opportunities – which usually come from one or more of the following levers: volume consolidation, the introduction of new suppliers, lower transportation costs, unbundling of non-value-add services, better just-in-time inventory management, alternative product designs or packaging, a change in the supply and demand balance in the product category or a change in one or more of the primary raw materials used in production of the products in the category, or some combination of these supply chain conditions.

Cost Avoidance

Sometimes, due to demand-supply imbalances, inflation, raw material, energy and/or production costs, it is a given that costs are going to rise and no amount of analysis or wishing is going to change that fact. In these situations, the best the organization can do is control costs and avoid significant cost increases by finding ways to keep costs below market average.

Cost avoidance will often take the form of volume consolidation and mid-to-long term lock-in with a few preferred suppliers who will sell below current market rates in exchange for long term income stability but may also take the form of demand reduction for consumable products, such as office supplies or MRO, that do not increase the value of the company's product or service offerings. Demand reduction could involve the, possibly one-time, sourcing of substitute products, such as extra monitors for Accounts Payable so they don't have to print out all of the PDF invoices for manual data entry into the AP system, sourcing concentrate cleaning products which can be diluted onsite and halve the number of units that need to be purchased for only a 40% cost increase per unit,

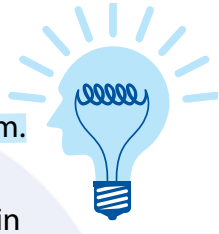
or the novel use of a new material, such as long-life energy efficient LED bulbs versus conventional incandescent light bulbs.

Revenue Generation

Sometimes the cost savings potential of a sourcing opportunity is extremely limited. Demand exceeds supply, inflation is high, suppliers are raising prices because supply is limited and the market is paying, and demand cannot be reduced because the category is for resale products for which market demand is increasing. In this case, Sourcing needs to see if there is an opportunity to generate value for the company, which will come in the form of a higher value product, for which Sales can charge a premium for, as this will balance out the unavoidable cost increases and possibly even increase profit per unit at the end of the day if the newly identified product or value-add service is valuable enough to a target market. This might come in the form of a bundled service, or a branding opportunity. For example, in the early days of personal computers, many manufacturers could charge a premium for a desktop box if it was "Intel" inside. And today's customers, not wanting to be without their internet enabled personal device for any length of time, will be much happier with an immediate replacement plan for any device that requires a repair than having to post the product to a distant repair facility and wait weeks for its return. These same customers will likely be quite willing to pay a premium for this peace of mind.

Detecting an Opportunity with Spend Analysis

Now that we have defined the different types of opportunities that a buyer can go after, we can discuss how to go about identifying those categories which contain the opportunities. The primary method is spend analysis. A proper spend analysis, appropriately conducted, can find each of the opportunities identified in the last section, as long as the buyer understands that it is important to accept the opportunities that arise, and not seek out specific types of opportunities. Until the analysis is completed, a buyer will not know if there is an opportunity in a category and, if so, if it is a cost reduction, cost avoidance, or value-add / revenue-generation opportunity. Success in strategic sourcing comes in identifying the advantages inherent in the situation at hand and making the best of them.



So where does an analyst start? If the organization is just starting out on its strategic sourcing journey, the analyst will begin with standard spend analysis initiatives and begin with top N, next N, and hidden value analysis.

Top N

The first step is to load, and classify to approximately 90% accuracy, all of the transactional spend for at least the last year and determine the top N categories, suppliers, departments, and geographies, where N is the number required to capture the categories, suppliers, departments, and geographies that represent about 80% of the spend. Then the organization identifies those categories and suppliers not under contract and those

departments and geographies that are spending the most. Savings opportunities are typically present in each of these lists. In particular:

- the top N categories that are not currently under contract or that have not been strategically sourced in the last 2 to 3 years;
- the top N suppliers that are not strategic partners and not in a formal supplier relationship management program;
- the top N departments represent opportunities for demand reduction or spend control if a significant amount of the spend is for internal consumables; and
- the top N geographies often hide opportunities not easily identified through other means if an analyst takes the time to analyze the data from multiple perspectives.

Why? Taking the situations one by one:

- the top N categories not under contract are often being bought on the spot-market, where prices fluctuate, and a lack of spend consolidation or volume commitment limits the organization's ability to negotiate discounts;
- a lack of formal relationship management is typically accompanied by a lack of performance management and, as a result, neither party notices when it is not performing as well as it could be, which is the case when shipments continually arrive late due to a misunderstanding of ship-by dates, for example; in addition, it is likely that neither party is pursuing opportunities for joint innovation, value-add, and potential revenue gains either through new products or new service offerings;
- sometimes Accounting or Marketing is using more paper than they need to because they don't have a second monitor or a monitor big enough to view the reports and data side by side, sometimes Engineering is contracting more Information Technology (IT) services than it should be because the internal IT department is not sufficiently staffed, and sometimes Sales is overspending on travel because the VP does not have real-time trip cost and budget visibility before authorizing a travel request; and
- if the analyst takes the time to break down the data set by geography and look at various lifecycle costs, the analyst might find there is a significantly higher rate of return or product loss in one particular market as a result of damage on arrival, indicating that simply replacing the local carrier or delivery agent with one that is more reliable can lead to savings.

Once a top N category not under contract has been identified, the organization looks at the average historical spend per unit and compares that to the expected spend as a result of a sourcing event using market pricing and typical discounts. If there is a reasonable opportunity for cost savings as a result of this analysis, the category becomes a candidate for strategic sourcing. If there is a small opportunity, but not necessarily enough to realize a return from a strategic sourcing option, the company might evaluate different supply

chain options if the initial analysis indicates that transportation is a considerable portion of the cost to see if a bigger opportunity is hidden in the data. If not, then unless there is an opportunity for product or service substitution, or for global discounts by combining the category with a related category that is typically sourced from the same supply base, the category will generally be pushed aside unless a market analysis indicates a rapid price increase without cost control measures or indicates that a combined product/service offering is more valuable to the market than individual offerings.

Next N

Generally speaking, even without a detailed spend analysis, it's fairly straight forward to identify seven, or even eight, of the top ten categories and suppliers and fourteen to sixteen of the top twenty categories and suppliers through a consensus survey. Simply ask Accounts Payable, Supply Management, and the C-suite what the top categories are and who the top suppliers are and the consensus results will be reasonably accurate. As a result, a top N analysis is not going to yield that many new opportunities. But the typically overlooked next N, where N is enough to cover the categories, suppliers, geographies, and departments that cover about 80% of the spend not included in the top N analyses, will be a gold mine. A larger percentage of these categories and suppliers will not be under contract and/or management and have more margins to trim. In addition, a lack of serious analysis will have resulted in a lack of consolidation on volume-based consumable purchases, a lack of consolidation across service categories where local providers can sometimes considerably undercut national providers, and a lack of identification of more cost-effective alternative products and services, especially in the consumables category.

The next N analysis is done almost as the same as the top N, with the only difference being that the spend magnitudes are smaller so the opportunities have to be more certain before sourcing is undertaken.

Hidden Value

Once the top N and next N opportunities are exhausted, the next step is to slice and dice the data in creative and unconventional ways to find opportunities that cannot be identified using traditional analyses, and that definitely cannot be identified using canned, top N or next N analyses.

This is where an analyst will start with a department, geography, or high-cost data cross section, such as steel or energy spend across categories with a high steel component or a high energy cost component where cost breakdowns are tracked, and try to define opportunities that cross categories or suppliers with a more creative approach to sourcing. For example, if an analyst identifies that a department is using a higher than normal proportion of consumables per capita and then conducts a detailed investigation that identifies a high loss rate, then the simple introduction of better inventory tracking techniques or theft prevention could reduced demand, and thus cost. If an analyst identifies that a certain geography is consuming a lot more paper-based reports and brochures, investing in more awareness in the online self-service portal could result in more customers consuming electronic materials which have a one-time production cost

versus print products that have a per unit print cost. And if an analyst identifies that across five major product categories, steel spend is a top twenty category, then there might be a significant savings opportunity if the organization buys steel on behalf of its smaller suppliers and sells it to those smaller suppliers at cost. A good analyst will keep digging into, and creating new spend cubes on, major spend buckets until the analyst finds new opportunities to pursue.

Verifying an Opportunity with Should-Cost Modeling

When a potential opportunity is identified, before a time-consuming, resource intensive strategic sourcing project is undertaken, the initial estimate, based upon an estimated per-unit cost saving using market rates and an expected discount, should be verified by way of a more detailed estimate that increases organizational confidence in the savings opportunity.

This can take the form of should-cost modeling, price trending, and/or what-if optimization. In should-cost modeling, the total cost of ownership of each unit is calculated and takes into account price per unit costs, transportation and transportation related costs, and utilization costs and estimates the likely cost against the average current total cost. If the expected savings amount is about equal, or greater, than the quick estimate, the buyer can have reasonable confidence in the success of a sourcing event.

If the should cost model does not indicate a rather significant savings opportunity, there might still be an opportunity if costs are currently rising and a trend analysis indicates that prices are likely to rise for the next year or two. In this case, locking prices in at a rate less than current market rates will realize savings over the mid-term.

Finally, if there is no clear savings opportunity as a result of should-cost modeling and price trending, there could still be savings from a supply base, supply chain, and/or inventory redesign which could be detected by running a what-if optimization model using all known suppliers, market prices, standard logistics rates, and expected volume-based discounts and analyzing the result. If the result indicates an expected unit-price that is less than current prices and/or market prices, then a sophisticated strategic sourcing event that uses decision optimization is still likely to generate savings.

Chapter 3

Planning a Strategic Sourcing Project

Once a buyer has a good understanding what strategic sourcing is and has identified a potential opportunity, the next step is to plan the project. Having an analysis with a model that says "expected savings of twenty percent" is not a plan, and not even a business case. It's the go-ahead to put in the time and effort to flesh out the business case, the requirements, and a plan to capture as much of the opportunity as is feasible without sacrificing quality or reliability of supply.

Defining and Scoping the Opportunity

The first step is to review the opportunity analysis, validate the demand and the cost projections, and assess the probability of achieving a realistic result. Even if it is the same senior buyer who did the assessment who will be leading the project, given that weeks, or months, can pass between building an initial business case and getting the go-ahead to pursue a project, market conditions, demand, and assumptions can change and need to be validated. If the opportunity still seems real, then the project progresses. If not, the senior buyer needs to determine if a modification to the project, such as slightly altering the category definition to include or exclude a few products or services or adding in a supply assurance element to reduce insurance costs, can still offer a reasonable opportunity. Sometimes the best thing to do is to shelve the project for a few weeks or months, spot-buy, and move on to the next approved opportunity in the queue.

The next step is to detail the scope of the project – fully define the category or categories being sourced, the products and services they contain, any products or services out of scope, and the key attributes, specifications, and requirements for each product. Considerable effort needs to be put into defining the products and services in a vendor neutral way so that as many suppliers as possible can offer products and services that could meet organizational needs as more options and flexibility almost always result in lower cost opportunities.

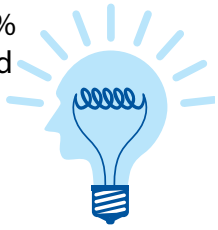
For example, in the food service industry, a need for tomato paste can be met in various ways. Cans of ready-to-use paste, drums of ready-to-use paste, drums of condensed paste that need to be mixed one-to-one, frozen bags, etc. Often, the buyer doesn't care about refrigerated vs. frozen or package size – just a usable product on time at the lowest price that can be obtained. The unnecessary specification of a particular packaging requirement can inadvertently eliminate half of the supply base. Similarly, on the indirect services side of the business, insisting on a senior enterprise developer with 10 years of Java experience and 5 years of Oracle can often eliminate the best candidates as some developers with only 5 years of Java, who are top of their class and have been doing 80% Java development for the past 5 years, are the best candidates and if the organization is only interfacing with Oracle using standard SQL, 5 years of MySQL experience is equivalent. Define the need, not a product or checklist, and more options present themselves. Those that are not economical or usable can be eliminated, but more options will remain than the organization would have had otherwise.

Once the key specifications have been defined, the next step is to define the relevant attributes and any minimum, or maximum, requirements. For example, in the tomato

sauce case, a utilization rate of 98% to minimize waste might be required. Similarly, in a CPG electronics category, a maximum defect rate of 1% might be necessary because warranty and return processing is too expensive otherwise.

Then, the organization has to detail any hard, or soft, constraints that need to be adhered to, and any associated penalties for violation (of the cost constraints), which need to be factored into the overall cost equation. For example, if a detailed production cost analysis indicates that the likelihood of a supplier being able to achieve the cost-efficiency necessary to offer the organization a cost reduction is not achievable unless that supplier gets at least 30% of the total award, then a critical constraint is that no supplier get less than 30% and, by implication, there will be at most three suppliers for the category in question. If a logistics analysis indicates that there are no feasible options for horizontally collaborative LTL (Less than Truckload) shipping, then another constraint is that each ship-from location must produce near-truckload levels of inventory, or a minimum number of units. In other words, the supplier might need to dedicate one plant and not split the production across three plants because it's easier for the supplier. There might be a contract in place, and breaking it would require a fixed penalty, or there might be a cost, such as a warehouse upgrade, to bring a new supplier online. All of these constraints, which are often supplier independent, need to be documented and captured so they are not forgotten and, if relevant, included in the RFX tender package so suppliers can be made aware of any mandatory requirements.

Finally, the senior buyer needs to consider how much complexity is worth pursuing relative to the opportunity. For example, if the category is currently VMI (Vendor Managed Inventory), is there enough savings potential in using a 3PL (Third Party Logistics) organization or switching to buyer-managed inventory, and 3PL or buyer-managed freight, to make the extra effort of creating carrier and 3PL tenders and inviting them to bid on all possible lanes? If it's a high-dollar electronics category where freight is only 5% of total cost and the savings potential on freight is less than 10%, the extra work required to pursue a non-guaranteed cost savings of 0.5% is likely not worth it. Understanding the opportunity with respect to the complexity of the category will help determine the sourcing strategy.



Selecting the Event Type and Strategy

Once the opportunity has been appropriately defined and scoped, the next step is to define the sourcing strategy and select the event type. A number of factors come into play here: the nature of the product or service, strategic or tactical; the potential supply base; the receptivity of the supply base, and the organization, to auctions; the complexity of the buy; the current market conditions; and any overriding constraints or requirements of the category.

Once all of the factors have been identified, the senior buyer needs to weigh them against each other and select the most critical factors as it may be impossible to pick an event that is the most appropriate for every factor on the list. For example:

Auctions generally only work well when the category is:

- awardable to any winning supplier based on the results of the auction alone (assuming the supplier agrees to the terms and conditions in the tender package)
- captured in a total cost model that can be implemented in a weighted auction, which could be backed by real-time decision optimization
- commercially attractive to enough suppliers to encourage competitive bidding
- easy to lot/structure for quick, easy, comprehensible bidding
- currently being acquired above market-value

Decision Optimization generally works well when the category is

- complex (multiple products and/or services with a magnitude of requirements)
- heavily constrained
- defined by lots of cost components
- amicable to a myriad of solutions
- open to multi-round negotiation

Multi-Round RFX-backed Negotiations are appropriate when the category is

- strategic
- only serviceable by a few suppliers
- such that it requires specific processes or best practices to realize cost savings (and may require a change in typical supplier operations)
- not able to be awarded until a specific set of terms and conditions or delivery schedule is agreed to
- one that needs to sacrifice hard cost savings for soft value factors such as an unquantifiable risk reduction, joint innovation, or just a better working relationship

Multi-round strategies work best when there are a number of different factors that are typically at odds with each other or factors whose interpretations are fuzzy, when pre-qualification rounds need to be held, or when initial bid information is required to initialize a model. For example, it typically makes sense to precede every event with an RFI to pre-qualify new suppliers, and it often makes sense to precede an auction with an initial RFQ to collect starting bids and validate the weightings and underlying model.

While it is uncommon, sometimes it makes sense to have a multi-round RFX, to qualify bidders and collect initial bids, followed by an auction, to eliminate suppliers who aren't competitive, which is then followed by optimization-backed negotiations where additional savings can be identified by looking at more cost factors or more detailed cost

breakdowns, where risks can be reduced by taking into account mitigation constraints, and where soft-factors can be analyzed. However, in such a situation the strategy needs to clearly defined and, as will be discussed in the section on auction best practices, communication needs to be crisp and clear if the intent of the auction is to select a set of suppliers for negotiations and an award is not guaranteed.

e-RFX, a Deeper Dive

RFX (Request for X) stands for RFI (Request for Information), RFP (Request for Proposal), or RFQ/RFB (Request for Quote / Request for Bid) and is used to solicit information from a supplier.

The RFI should focus on qualifying suppliers as suitable providers of products and/or services for the company. The qualification should focus not only on technical requirements, but on business and cultural requirements. If the supplier cannot support the organization in all of the regions that the organization does business in, if the supplier is not a good cultural fit, which could be the case if the organization is focused on innovation and sustainability and the supplier on mass production and aggressive cost-cutting, or if the supplier is not financially stable, then the supplier is not a good fit and there is no need to do a deep evaluation of products and/or services.

In addition, as indicated in earlier sections, the RFI should focus on determining whether or not the supplier is willing to accept the standard terms and conditions and meet any absolute requirements such as order window, extra insurance, and industry certification, for example. Even if the supplier is a business and cultural fit and even if the supplier can potentially supply the products and services that the organization needs, if the supplier is not willing to commit to the required delivery window, accept and adequately insure against the liability their products and services create, or get the necessary certifications for the organization to use or sell their products in the target market(s), then the supplier is still not a good fit for the organization and the supplier should be cut from consideration in the RFI phase.

The RFP is used when the organization has a non-commodity custom manufactured product or service bid that requires custom, innovative, proposals that allow a supplier to showcase their capabilities and opportunities for cost reduction or when there are multiple options with different trade-offs that the buyer needs detailed specifications for in order to make a determination as to the feasibility and appropriateness of the bid for the organization. The RFP may or may not contain cost or bid information, and, even if it does, once the buyer has settled on feasible options, the buyer may still issue a RFP/RFQ with more exact specifications or requirements.

The RFQ/RFB is used primarily to collect bids for commodity categories. While it is sometimes used to collect bids for custom manufactured products or specialty services, which will be well understood by the suppliers when it follows an RFP that described organizational needs or is for the same custom products or services tendered in a previous sourcing event, it is primarily used when the organization can assign an award and go direct to negotiation or use the responses to initiate an auction with the RFQ/RFB as starting bids.

Best Practices

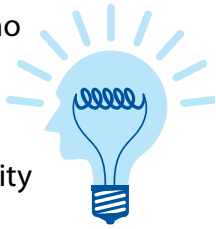
While many of these best practices have already been mentioned in previous sections, they are worth repeating as they are often the difference between a successful event and a very unsuccessful one.

1) Clear Requirements

Even if all of the requirements do not need to be included in the RFI to qualify suppliers, and even if the team believes that not all requirements need to be determined up front because it's a multi-stage event, it's important to understand what all the requirements are so that critical information is not missed. For example, if short delivery timeframes, sustainability initiatives, and new production techniques that don't use hazardous chemicals are critical requirements, then that can eliminate suppliers from consideration and leaving this requirement out until the auction or post-bid decision optimization is just going to give the organization a negative reputation with a supplier that thought it had a chance of winning the business but really did not because it could not meet a key requirement that should have been mentioned up front.

2) Regular and Repeated Communication

Communicate, communicate, communicate, and communicate. Communicate that the supplier has been selected to participate in the sourcing process. Communicate the sourcing process. Communicate when each RFX will be coming. Communicate after each RFX has been sent out to make sure the supplier received it and to make sure there are no questions. Communicate timely responses to each question and any changes that need to be made to the process, RFX, or requirements. Communicate the results clearly and provide thoughtful feedback to ensure that potential suppliers remain engaged. Communicate the reason for any delay, and seize any supplier reach-out as an opportunity to improve communication and relations.



3) Create a Balanced Scorecard

This is very important if the RFX is being used to eliminate suppliers or to select suppliers for negotiation. Only by creating a balanced scorecard can a buyer fairly consider all requirements and constraints and make logical, informed, decisions that bring the best overall value to the organization.

e-Auction, a Deeper Dive

There are a large number of reverse auction types to choose between, including sealed bid, reserve price, fixed-floor price, Japanese, Brazilian, Vickrey, Dutch, and Yankee, but regardless of the auction type that is chosen, there are a number of best practices that consistently apply, and need to be followed for the organization to have a good chance of event success. This section will discuss these best practices, but first it will define the different types of auctions and the most important features that should be used in most auction events.

Sealed Bid -

the bidders don't get to see the bids from other bidders, and only see their relative rank

Reserve Price -

the buyer establishes a maximum price they will pay, and if the reserve price is not met, the buyer is not obligated to make an award

Fixed (Floor) Price -

the buyer establishes a minimum price at which the auction can be automatically ended and the business awarded

Japanese -

the bidders must indicate their willingness to remain in the auction after every bid and the auction ends when only one bidder remains

Brazilian -

the buyer establishes a lot price and the bidders indicate how many units they will provide

Vickrey -

a modified sealed bid where the second lowest bidder gets the award

Dutch -

bidders can bid on partial lots and when the auction is over, the buyer pays the highest successful bid price on the lot

Yankee -

bidders can bid on partial lots and when the auction is over, the buyer takes the lowest bids, in order, until the lot is allocated and pays the actual bid amounts to each supplier

Generally speaking, the most successful auctions are the simplest auctions. In other words, the best auction solution is often a customizable reverse auction solution that allows a buyer to optionally define:

- a reserve price
  (that is clearly visible to all suppliers before their first bid)

- a floor price
  (that defines a supplier's minimum bid)
- an automatic extension time if a "sniping" bid comes in during the last five minutes
  (that can be triggered as many times as necessary)
- minimum decrements
  (to prevent unreasonably small decrements on large bids which extend the auction unnecessarily)
- immediate feedback when ranks change
  (which is critical in a weighted auction when [unit] price is just one factor)
- online communication and a Q&A mechanism
  (the organization doesn't want a supplier to drop out just because the supplier doesn't understand an aspect of the auction)
- masking
  (sometimes an organization only wants a supplier to know their rank, not who is beating them)
- final bid specification
  (if all suppliers indicate final bid, the auction can immediately end)
- proxy bidding
  (in case a supplier's internet connection gets interrupted)

Best Practice

1) Only Invite Qualified Suppliers

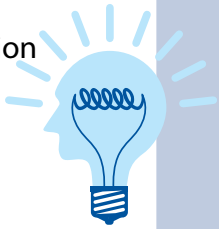
If the organization feels that, for any reason, it would not make an award to a supplier even if a supplier gave the winning bid, the supplier should not be invited. There are a couple of reasons for this. First of all, the organization will lose credibility, and it is often hard even for credible organizations to convince some suppliers to participate in auctions. Secondly, as will be discussed below, a critical requirement is the ability to follow-through on the auction result no matter what happens.

2) Clear Auction Definition

Completely specify in writing, sufficiently in advance of the auction for the suppliers to review and ask questions, what type of auction will be run, when it will be run, how long it will take, what the constraints are, what the rules are, what the suppliers can do if they have issues, what model is being used for ranking, the purpose of the auction, and, very clearly, whether the buyer is obligated to make any award or even negotiate with a participating bidder. It is important to note that if there is no obligation to negotiate, the suppliers may not be very interested in bidding.

3) Clear Reason for Supplier Participation

Why should the supplier participate in the auction? Do they at least get a guaranteed award if they win, or, if it's a multi-stage sourcing project that will be followed by a decision optimization backed negotiation, are the suppliers guaranteed to advance to the next round if they are in the final three? If there is no clear reason for participation, and it looks like all the organization is trying to do is collect market intelligence to negotiate a better deal with the incumbent, a supplier will not be inclined to participate.



4) Follow-Through

It's critical that, upon auction completion, the organization follows through on any promises made as soon as possible. If it was a one-time auction to make a spot-buy award, and the organization guaranteed that the winning bidder would get at least 30% of the award, than the organization should immediately notify the winning bidder of success, the percentage of the award it intends to allocate, the timeframe in which negotiations will begin, and the process that will be followed. It should then notify other bidders it would like to make an award to and provide them similar information. Finally, it should notify all of the bidders who didn't win that they weren't selected and not only provide those suppliers good feedback on why they were not selected, but what could be done next time by the supplier to improve the supplier's chances. For example, if a bidder lost because the services component of their bid was too high relative to all other suppliers, that should be communicated.

5) Monitor The Auction

If suppliers aren't bidding, there might be a technical issue and the buyer might need to assign personnel to proxy bid. If there are questions, the questions needs to be answered promptly or the auction could end up being unsuccessful. If there is no bidding for five minutes, the buyer might want to remind suppliers of the "final bid" specification that could immediately end the auction when it is effectively over.

e-Optimization, a Deeper Dive

Decision optimization is the application of rigorous analytical techniques to a well-defined scenario to arrive at the absolute best decision out of a multitude of possible alternatives in a rigorous, repeatable, and provable fashion. This is a mouthful, but it's a necessary mouthful because decision optimization absolutely requires:

1) Rigorous analytical techniques

The analytical techniques must always produce a valid answer and be capable of analyzing every possible solution. As a result, systems based on Mixed Integer Linear Programming (MILP) techniques are valid but systems based on evolutionary approaches are not as (heuristic-driven) evolutionary approaches do not guarantee full exploration of the solution space.

2) A well defined scenario

The scenario must completely and accurately represent the problem at hand. The cost model must be valid and the complete set of hard constraints that cannot be broken must be captured. An approximation is not sufficient if it does not capture true costs or hard constraints as the generated solution(s) will not be realizable in the real world.

3) The best decision

Provided that the solver is given enough time to run, it must be capable of finding the absolute best decision. If the model is complex enough, enough time could be days, months, or even years to prove with 100% confidence that there is no better solution, but over time the probability of finding the absolute best answer must approach 100%. (The great thing about today's MILP solvers is that they can typically get within a fraction of a percent of the best answer in minutes on a suitably powered machine even if an exhaustive search would take days.)

4) Repeatable and provable solution

A solver that can not reproduce an answer that is equally as good on a re-run when it is given roughly the same amount of time is not a solver that can be trusted.

Selecting the right solution involves identifying a solution that captures the four pillars of strategic sourcing decision optimization. These are:

1) Solid mathematical foundations

As described above, the system must be built on a solid mathematical technique that is capable of identifying the best decision in a repeatable and provable fashion on a well defined scenario.

2) True Cost Modeling

The system must be capable of capturing all relevant fixed and variable costs, including penalties, as well as the rules that activate these costs or migrate the cost from one tier to another.

3) Sophisticated Constraint Analysis

At a minimum, the system must support capacity constraints, allocation constraints, and risk mitigation, or meta-allocation, constraints. If these basic categories of constraints are not captured, the system will not be powerful enough to model real-world sourcing scenarios.

4) Qualitative Constraints

These constraints allow for the imposition of an absolute or average minimum or maximum qualitative score on each product or product bundle sourced and can be used to specify quality requirements, sustainability requirements, scorecard requirements, and other soft factors under consideration.

Best Practices

1) Start Unconstrained

Decision Optimization should be an iterative process. The first step should be to run a basic model without any constraints, not even supplier capacity constraints. If no solution is found, this means that there is missing data or bad data that needs to be provided or corrected before the solver can find any solution. If a solution is found, but the total cost is not within a reasonable percentage, that is typically between 10% to 20%, of the expected savings, and the opportunity analysis was detailed, then there is a chance that there is bad data. For example, the expected cost was 1 Million but the solution returned is 100 Million. In this case, it's probably just a decimal point error in the input file. If the expected cost was 10 Million and the cost is 8 Million, a lane analysis might reveal the ten cheapest lanes to be 0, and a single click might reveal missing bid data from a supplier. And so on.

2) Then Run a Capacity-Only Constraint Scenario

This scenario captures supplier ship-from production capacities and ship-to receiving capacities. If this scenario cannot be solved, then either there is bad data which is likely due to a mis-key on data entry or an error on data load, missing data and poorly defined defaults, or the current supplier / ship-from mix is not sufficient to meet the organization's need and more options need to be considered or the demand reduced.

3) Then Run a Hard-Constraint Scenario

All of the hard constraints, including risk mitigation and absolute qualitative requirements, are included. If this scenario cannot be solved, then the organization will need to either remove some constraints, define a subset of these constraints as soft with penalty, or add more supply options. And if the cost is too high, then the organization will need to iteratively define some constraints as soft with penalty and re-run the model until a solution with an acceptable cost is found.

4) Then Run a Scenario With All Desired Hard-and-Soft constraints

Since soft constraints don't prevent solutions, and since the hard model solved, the buyer knows this will solve, though not necessarily at an acceptable cost. If the cost is not acceptable, the buyer will need to either remove penalties or add more supply options.

5) Finally, Run What-If Scenarios Until An Acceptable Solution is Found

It's rare that all costs and constraints will be fully captured on the first go and rarer still that even once all costs and constraints are captured, the sourcing team will like the solution. In this case, constraints will need to be added or altered in a what if fashion until the lowest acceptable answer is found.

Identifying The Project Team: Roles and Responsibilities

Once the project is well understood and the strategy selected, the final project team needs to be identified and assembled before event execution begins. While the key members of the project team would likely have been identified during the analysis verification phase – as they would have been the individuals consulted to verify assumptions, define requirements and constraints, and provide input on potential strategies – only when the strategy is complete, with all of the necessary roles identified, can the team roster be finalized.

Chapter 4

Executing a Strategic Sourcing Project

Now that the opportunity has been identified and the plan has been made, it's time to start executing. This chapter will address the key activities of the execution phase and some key factors for success.

Structuring the Event

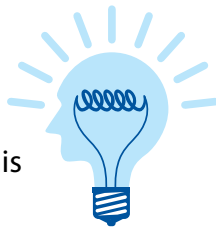
The first step is to put some structure around the event, starting with the suppliers who will be participating.

Supplier Identification and Qualification

During opportunity identification and validation, a starting set of suppliers will be identified. Typically, this will be the set of suppliers that the organization has solicited quotes from in the past. As a result, this will not be an all inclusive set of suppliers and, more importantly, this set is not guaranteed to contain the suppliers with the lowest cost or the best value for the organization.

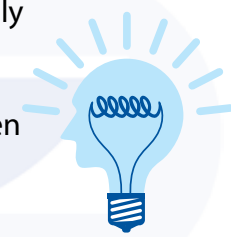
Thus, one of the first activities in execution is to do a market search for additional suppliers that have a decent likelihood of being able to serve the organization efficiently and cost effectively. Even if newly identified suppliers are not awarded any business, sometimes a few extra suppliers in the mix can increase competitiveness and lead to better sourcing results. It is worth noting that suppliers of sourcing software, marketplaces, and networks often have supplier databases with the detailed market data necessary to identify new suppliers.

Once all of the potential suppliers have been identified, the next step is to qualify the suppliers. This will typically be done through a process that starts with an RFI that insures the suppliers can meet the business requirements, fit in with the culture, and meet the core product and service needs. It may include a review of a sample product or service offerings, depending on whether or not the category requires custom goods or capabilities. Regardless of whether or not a supplier is selected for bidding and/or negotiation, all suppliers will receive feedback and timely responses when promised. This ensures that if a supplier is not appropriate for the current category, they will likely be responsive in a future event for another category that they are more appropriate for.



Phases and Timelines

Another key activity to undertake early on, which is typically done right after potential suppliers are identified and before qualification completes, is the creation of the detailed project timeline. It may take time to qualify suppliers and this needs to happen as soon as possible as the heart of a sourcing event cannot take place until suppliers are qualified. Once the strategy has been selected, the project team selected, and the potential supply base identified, it's time to lock down the timeline and the phases. Large and complex sourcing projects need to be mapped out and managed since senior analytical buyers, and even suppliers, can fall into analysis-paralysis and the amount of effort that will then be unnecessarily expended will result in diminishing returns.



Documentation and Communication

The last chapter stressed the importance of communication for successful RFXs and auctions, and a key component of this communication is clear and complete documentation. The process should be clearly documented, the business requirements should be clearly documented, the product and service requirements should be clearly documented, and the change management process, both in the sourcing event and as part of the eventual contract, needs to be clearly communicated. The last thing an organization wants is a tarnished reputation from a disgruntled supplier because the supplier was surprised by a "sudden" change in requirements or process during the sourcing event.

Lots, Line Items, and Bid Types

If the category contains multiple products and/or services, then some thought needs to be put into how the request for bids / quotes is going to be structured, especially if an auction is going to be used. A number of factors come into play. How are suppliers used to bidding, or expecting to make their bids? How much added value is there to breaking bids out and / or breaking bids down? Is a line-item a bundle of products that are not useful on their own, individual units, or components that are assembled into units? Is it useful to include freight or separate freight out?

Bid Forms and Data Sheets

Once the bid structure has been decided, the next thing to do is to define the bid forms that will be distributed as well as the factors that will be used to do an evaluation and ranking of the bids. In addition, the senior buyer and/or analyst needs to define the bid forms and data sheets that will be used to organize the data for a more detailed spend analysis or decision optimization, if so desired.

Tendering and Evaluating the RFX Responses

Once the event is structured, the next thing to do is execute the event. This involves distributing the tender and evaluating the responses, possibly through multiple iterations with feedback in between each iteration. In order to ensure success, there are a number of best practices that need to be considered.

Evaluate Non-Quantitative Non Bid Data and Bid Data

It's important to remember that sourcing is strategic and the ultimate goal of the sourcing event is the best value, not the lowest cost. This means balancing cost against non-cost factors that are also valuable to the organization – such as delivery window, maximum defect rate, relative supplier risk, relative innovation, and other hard and soft non-cost factors related to the supplier. Some of this data will come from the supplier, and some will be specified by the sourcing team based on historical or third party data. All of this data needs to be captured and compared.

Perform Completeness and Reasonableness Checks

Before the tender responses are analyzed, the most important thing to do is to perform completeness and reasonable tests on the data. Where analysis and optimization is concerned, it's always a case of garbage in, garbage out. The first thing to do is make sure that, for each line item or lot, depending on how the event was structured, a supplier either provided all of the appropriate bid data, indicated that the buyer was to use third party data for shipping or services costs that would come from a third party, or indicated that they were not bidding on the lot. A good sourcing platform will allow an analyst to, for each supplier, click a button that will do this completeness analysis and indicate if there are any line items or lots for which data is missing. At this point, the senior buyer will have to decide whether to contact the supplier to get the missing data or, if the project plan communicated to the suppliers clearly indicated that incomplete bids would be treated as non bids, have the software zero out the bids and mark the item or lot as not being bid upon by that supplier.

The next step is to check reasonableness. A good sourcing platform will make this easy, but it's more than just pressing a button, running a report, pressing the "exclude all incomplete bids" button, and running a "feasible model" check to see if there is at least one solution. The first check that needs to be run is a cost check by line item and lot to determine first if there are any outlier bids, which are too low or too high compared to the mean, and second if the mean bid is within an expected range. A system can, given an "outlier" range, easily find all outliers but, unless an expected cost or cost calculation, backed up by all of the required cost components, is provided, as well as a confidence interval, for every line item or lot, it will be harder for the system to identify bids out of range. And even if the system can identify "out of expected range" bids, it can't determine if the bids are still good or not. For example, if the expected bid was $10, and the mean bid is $20, then there is a good chance the suppliers don't understand what the bid is for but it could be the case that the buyer's cost model has a considerable issue. For example, maybe the suppliers thought they were bidding per "case" but the buyer wanted bids in the new "half-case" size. Or, maybe the buyer built a should cost model and used the five year old fuel and overhead rate tables, and fuel and overhead accounts for a significant part of the total cost because the item being shipped is heavy. Then the suppliers are closer to the right value than the buyer, especially if a raw material cost just spiked due to a mine shutdown. For each "out of expected range bid or set thereof", the senior buyer will have to figure out if it's a valid bid or if the buyer will have to go back to the suppliers with additional information and ask them to reconfirm their bids.

Use Factors, Rankings, and Scorings

As per our first best practice, it's critical to evaluate cost and non-cost factors in order to identify the best award for the organization. This should not be done on pure instinct by the seat of one's pants as this can lead to worse decisions than decisions made on cost alone. It should be done on an apples-to-apples basis where each supplier response to a question or bid is uniformly weighted and each supplier response as a whole is ranked according to the same weighting formula. For example, the bids are ordered and the

lowest bid in each set gets a 10 while the highest bid gets a 1, the non-cost responses are also normalized to a 1 to 10 scale, and each bid and response is assigned a weighting and the weight normalized bids are summed up. Then, the highest weighted average is the "winner" and the lowest weighted average is the "loser" and the top three suppliers are chosen for negotiation.

Useful Reports

After each round of the sourcing process, comparative and summary reports that capture the current status of the project should be run, but the reports should convey useful information and not just produce paper for paper's sake. For example, a bidder ordering from 1 to n is not that useful, the relative ranking information also has to be included as well as key bids or metrics that contributed to that ranking. If the incumbent is in fifth place and there are only seven vendors, everyone is going to want to know why.

If the top three or four bidders are very close, a detailed comparison report on costs and non-cost factors, which could also include risk and performance metrics, is going to be needed to determine the relative strengths of each bidder and provide useful feedback if additional bidding, negotiation, or auction rounds are going to be undertaken.

Running the Auction

Depending on who is asked, online reverse auctions are either the greatest sourcing tool ever invented or the worst sourcing tool ever invented. Some organizations have had incredible success, while others have succeeded in alienating entire supply bases to the point where the suppliers banded together and had industry associations impose bans on auction participation and / or lobby for the government to ban auctions for the industry as a whole. (In the United States, The Associated General Contractors of America is lobbying the senate to ban reverse auctions across the construction industry.) Furthermore, depending on how the auction is structured, how the auction is run, and the category selected, it can either bring the organization great success or result in abysmal failure.

Select the Auction Characteristics

The auction has to be appropriately defined and, as per the best practices outlined in the last chapter, clearly communicated to the suppliers. While the specific auction characteristics will often depend on the category being sourced and the supply base that will be participating, there are still some characteristics that will always need to be defined and some rules that, generally speaking, should not be violated. This section discusses a few of these absolutes.

The first absolute is an appropriate time limit. An auction where suppliers are only bidding on one lot at a time and only have to enter a lot bid and a freight bid is not going to take an hour since the suppliers are going to know their starting bid and their floor before the event starts. These events typically get to the lowest bid in five to fifteen minutes. Similarly, if the supply base is expected to bid on ten lots simultaneously, it's going to take

them five minutes or so to enter an updated bid, not thirty seconds, and the event is going to have to be at least an hour, if not two. In addition, while most auctions will take the expected amount of time, some will require extra time. All auctions should be defined so that they are automatically extended by at least five minutes if the bid comes in during the last five minutes, and by longer increments if there are multiple lots or a lot of factors for the suppliers to consider in a bid.

The second absolute is minimum bid decrements, defined either as a reasonable percentage, such as 0.05%, of the reserve bid or a reasonable dollar value relative to the lot size. For example, a supplier should not be able to decrease bids by a penny if the bid is on a 1,000 item lot. Not only does it unnecessarily extend the auction, but it's disrespectful to the other bidders for the organization to allow it. The organization should take care to define a reasonable, minimum, decrement for each lot.

The third is the definition of reserve bids and floors. If the bids are above what the buyer expects based upon current market data and an accurate should cost model, the buyer should not be bound to pay more than market rates when that buyer could go to the spot market and get the same product or service. That's why every auction should have a fair reserve. In addition, the buyer should not be bound to accept a bid that it feels is unsustainable, because the buyer should not have to accept an increased risk of supply unavailability when it knows that the supplier is putting itself in an unsustainable financial position over the long term. That's why every auction should have a floor. The floor can be aggressive, but it should be for a bid that a supplier is capable of sustaining. The organization can be super optimistic and define the floor at an expected margin of 1% because, even though the supplier might not be happy with a 1% margin, if the supplier is covering it's cost, then the bid is sustainable.

The fourth is realistic lot size. Even if it makes sense to auction an entire category, if there are too many bids to enter at a time or too much information on the screen, the supplier is going to get frustrated or confused and just abandon the auction. Sometimes this will require accepting lot and other non line-item bids, and other times it will dictate a series of successive auctions.

Executing with Preparedness (Best Practices for Supplier Participation)

Remember, most, if not all, suppliers have had at least one bad experience with auctions and have heard more horror stories than they care to remember. In order to get suppliers to participate, the organization will have to convince the suppliers that the auction will be fair, that it is not being run just to gather market intelligence, that the winners will advance to the next round, and that the organization is prepared to run the auction the right way.

The organization will need to communicate the back-up plan if the auction platform fails when the auction is being announced, the back-up plan if just one or two vendors get disconnected, and what will happen if an issue is discovered with a lot and the lot has to be adjusted or pulled at the last minute. There should be a back-up time, surrogate proxy bidders standing by the phones, and a plan to continue auctioning any remaining lots and push the pulled lot to the back-up time if it just needs a correction.

Picking the Winners

If the auction is a true total value auction where the winner is not decided on cost alone, then the weightings on each cost and non-cost factor should be built into the auction and the suppliers should always see their overall rank. Then, the winners must be selected according to pre-defined rules. The ultimate winner must be guaranteed, pending acceptance of the mandatory terms and conditions and a signature on the contract that will be offered, a minimum amount of the award. It's okay to say that the award will go to one or more winners and while the top three suppliers will be considered, only the ultimate winner is guaranteed an award, but it's not okay to say that, regardless of the bids, the organization can still pick the bidder in last place without guaranteeing a winner part of the award.

Communicating the Results

Regardless of whether a supplier won or lost, the results must be communicated as well as how the supplier ranked and an explanation of why the supplier ranked how it did. For example, if the supplier had the lowest bid on a lot but was ranked fourth, the supplier deserves an explanation as to why. For example, maybe their terms of delivery were 50% longer than every other supplier, and fast turnaround was very important to the organization in this category. The supplier deserves as much market intelligence from the organization as the organization expects from the supplier. A supplier who loses but who gains an understanding of what the supplier needs to do if they want to win the business next time is a supplier who walks away disappointed that they lost, but not upset or angry. The supplier, if they want to supply the organization with product or services, leaves with a mission and the hope that not only can they use this knowledge to win some business in the next event, but be more competitive overall.

Using Decision Optimization

In order to successfully use decision optimization, the buyer has to properly define the model and appropriately run the model.

Defining the Model

Defining a model is not easy. It's not just supplier bids, it's supplementary costs. It's not just supplier capacity constraints, it's buyer facility capacity constraints. It's not just hard capacity constraints, it's soft award split constraints to mitigate risks, and penalties for violation. And so on. There are a number of steps that must be followed if the senior buyer is going to define the model appropriately.

Calculate the true total cost with formulae and fixed/supplementary costs

Optimization requires an accurate model and accuracy requires true total costs. Be sure to include the unit cost, transportation costs, import and export costs, utilization costs, and

overhead related costs. For example, if selecting a supplier would require a warehouse upgrade, that fixed cost needs to be included. And if switching to a new component would require a production line upgrade, that fixed cost also needs to be included. Not all costs will be fixed or per unit. Shipping might be per weight. Utilization may be per volume. A number of costs might be calculations, so use a formula, and not an approximation.

Codify all of the absolute constraints

While some soft constraints do not need to be in there, especially if the senior buyer is fairly certain that the added expense will not justify the unnecessary constraints, all of the hard constraints that are required to guarantee an implementable solution have to be in the model. A supplier can not be asked to supply 10,000 units every week from a factory that can only produce 7,000 units at peak production. If a supplier has a contract that guarantees them 30% of the total volume, that cannot be overlooked. If the organizational policy, mandated by the Board, is to always dual-source strategic products from two geographically distant suppliers, then a constraint that no supplier in a region can receive more than a maximum allocation, such as 70%, must be included.

Capture the desired constraints

After all of the absolute constraints are defined, the desired constraints, such as an additional split, a certain amount of the award with the incumbent provider, a certain amount of the award to a new supplier that might be innovative, or an increased quality or defect rate requirement, are defined. These are implemented as soft constraints which, while not absolute, have an associated penalty if they are violated that is defined equal to the value the organization expects to lose if the constraints are not met. In other words, the constraint can only be violated if the savings is greater than the penalty.

Chart the What-If Scenarios

The first scenario is always the unconstrained scenario to insure the model is well defined. The next scenario is a minimally constrained scenario that only contains capacity and contractual constraints. The third scenario has all of the hard (organizational) constraints. The fourth scenario has all of the soft constraints with the associated penalties if they are broken. Additional scenarios remove some of the non-capacity and non-contractual hard constraints to understand how much the mandated constraints cost and other scenarios remove some of the soft constraints to understand how the allocations change when they are not in the model. The initial set of these scenarios should be mapped out so that the analysis not only proceeds in a logical fashion, but starts off in an efficient manner so the analyst is not fumbling around trying to figure out how to understand the cost drivers of the model.

Running the Model

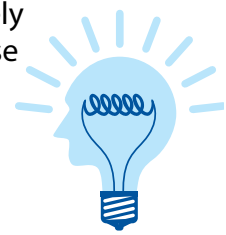
Once the model has been fully defined and the what-if scenarios are mapped out, it's time to run the model and evaluate it. However, when a buyer attempts to do this for the first time, the buyer will usually run into a number of issues that the buyer will need to resolve. This section tackles the most common issues.

Dealing with Missing Data

There will always be missing data. Suppliers will choose not to bid on certain line items or lots and forget to enter critical data values for others. Carriers will exclude lanes and team members will sometimes forget critical weightings or critical adjustment factors, such as when utilization plays a role. Sometimes this missing data will prevent identification of the optimal solution, other times it will result in model that is unsolvable because there are no product or shipping options for certain defined organizational needs. Are partial bids and default estimates included, or are they excluded? (For example, maybe a third party is typically used to provide the shipping and that rate can be assumed.) And if the model cannot be solved, does the analyst solve the portion of the model that can be solved and chop off the portion that can't be solved for additional bidding and analysis at a later time?

Removing Outliers and Bad Data

The saying garbage in, garbage out is never truer then when an organization is performing optimization. Just like a chain is only as strong as its weakest link, a model is only as accurate as its least accurate piece of data. One outlier bid that is too low can completely shift an allocation of the entire category to a supplier who cannot honor the bid because the bid was a typo or, upon further analysis, an attempt to honor the bid would put the supplier out of business. It's very critical to identify outliers and bad data and remove these data elements from the model.



Infeasibility and Conflict Resolution

The more constraints that are created, the greater the possibility that two or more of the constraints are going to conflict and prevent the scenario from being feasible. For example, if a global rule is defined at the category level that says incumbent supplier X gets at least 20% of all units of each item purchased, but incumbent supplier X does not supply product P in the category, the model is infeasible if both constraints are hard. This can easily happen if the senior buyer just added product P to the category, which was not part of the last sourcing event on the category, because most of the other suppliers can supply P and will offer volume discounts as well. In this situation, the obvious solution is to redefine the rule to 20% of all units for each item the supplier can provide. However, the situation where a buyer has defined a constraint that limits demand allocation to at most 40% for each supplier selected can conflict with a constraint guaranteeing 10 Million of spend to a strategic partner if the only way the organization can allocate 10 Million of spend to the strategic partner is to give that strategic partner 50% of demand. Which constraint can be violated? The buyer has to decide how to prioritize constraints, how to soften hard constraints by adding violation penalties, and how to deal with infeasibilities that result from conflict.

Analyzing the Results

After the scenario has been run, the results need to be analyzed for sanity. If any missing data was automatically overridden with inappropriate default data, if bad data slipped through, or if constraints were accidentally ill-defined, the results could be poor, and even nonsensical. For example, let's say that the buyer meant to define a risk mitigation

constraint that mandated a maximum allocation of 50% to any supplier but accidentally defined the maximum allocation as 15%. The result will likely be an allocation to 7 suppliers instead of 3, which will likely result in a much more expensive scenario than the buyer was expecting.

Comparing Scenarios and Running Reports

Once the scenario results have been validated as accurate, the next thing to do is to start comparing the scenario results, starting with a comparison of the unconstrained, the hard constrained, and the largest fully constrained scenario that can be solved. This helps the organization understand how much their hard and soft constraints are costing them and if they need to look more closely at what particular constraints are pushing up costs and whether those constraints are worth the cost.

Post-Processing and the Award Scenario

Once the buyer has settled on a scenario, the next thing to do is to create an award scenario that can be used to populate a formal contract offer. This is done by creating a copy of the results, linked to the original award scenario, which can then be manually adjusted and tweaked into an award the buyer is happy with. For example, the optimal award might be 9,876 units of item X to supplier A and 10,014 units of item X to supplier B because of the few extra dollars required to hit a dollar based discount offered by supplier B. In this situation, the buyer might want to round both awards to 10,000 and then round, or slightly pump up, other awards as necessary.

Preparing for Negotiation

Once the award has been determined, either as a result of a weighted RFX, an auction, or a decision optimization award scenario, the next thing to do is prepare for the negotiation. While this is not hard, and should not take too long, there are important preparations that need to be done to ensure success.

Communicate the Results (winners and losers) and the negotiation plan

Once the award has been decided, both the winning and losing suppliers need to be immediately notified. The winning suppliers need to be notified that they have been selected for an award, that negotiations will begin within a specified timeframe, and that details on the award will follow when negotiations begin. The losing suppliers have to be notified that they were not selected, the primary reasons they were not selected – which could be bids, delivery time, or incidental costs, for example – and what these suppliers might do to improve their chances next time.

Create an Initial Contract Offer

During the planning and strategy phase, the sourcing team will have identified the key terms and conditions, the appropriate contract type, and any clauses or templates that are relevant. Before negotiations begin, the contract template should be fully populated and

included in the initial offer. The terms and conditions come from the requirements and the bids from the award scenario.

Invite the Winners

Once the initial contracts are created, the next step is to send each supplier who has been selected for an award a package that consists, at a minimum, of an invitation to negotiations, an offer package that consists of a summary and a contract, and a complete set of specifications and requirements for each product or service being awarded.

Executing the Contract

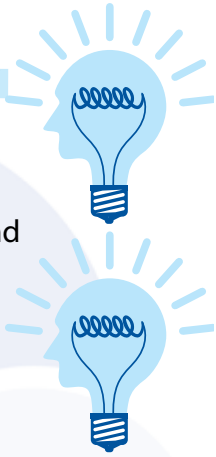
The negotiations might take minutes or they might take months, but regardless of how long they take, negotiation strategy is outside of the scope of this text. Once the contracts have been signed, execution has to begin.

Store and Index the (e-) Signed Contract

The first step is to store the (e-) signed contract in the contract management system and include all of the primary terms, conditions, obligations, and costs in the meta-data index for fast reference, search, and discovery.

Define the performance monitoring and obligation management plan

Most contracts contain a number of obligations beyond just the buyer paying a fixed amount for a good or service upon delivery. For example, the supplier might be required to maintain, and provide proof of, insurance, obtain regulatory certifications, or submit to one or more outside third party audits. The buyer may be required to provide the supplier with proof of creditworthiness, copies of licenses allowing it to purchase, and store, hazardous or restricted materials in bulk, or detailed product designs. These obligations will need to happen by a certain time and tracking will need to be set up to insure that both parties meet their obligations.



In addition, the identified savings will only materialize if the sourcing plan is adhered to. If orders are not shipped on time and need to be expedited, that cuts into savings. If suppliers do not start billing the new rates right away, or do not apply rebates, that cuts into savings. If quality drops and returns increase, that cuts into savings too. It's important to set up a supplier scorecard that is updated and monitored regularly to make sure that the supplier is performing as expected and, if not, identify issues early and correct them before they grow into major problems and even supply disruptions. The supplier scorecard should be built on relevant Key Performance Indicators (KPIs) that measure cost performance, product performance, and service performance relevant to the category and the organization.

Inform the Stakeholders

As soon as the contract is signed, not only should the stakeholders who were part of the process be informed, but so should any other stakeholder who is affected. In addition, all affected stakeholders should be granted access to the relevant parts of the contract, and

presented with a transition management plan if they need to switch to a new supplier, or a new product from an existing supplier, to ease the transition. A significant reason that 30% of savings, or more, from an average sourcing event are not realized is maverick spend. Sometimes maverick spend occurs because a buyer who was not part of the contract does not realize the item is under contract with a supplier, sometimes it is because a buyer thinks the item from another supplier is better and does not realize what the buyer is costing the organization by not buying from the contracted supplier, and sometimes it is because the buyer doesn't know when, or how, to switch over so the buyer just keeps ordering the old product until someone steps in and forces a switch.

Set up the necessary alerts

Obligations, performance reviews, regular delivery schedules, need-by services dates, etc. all need to happen by a certain time or significant issues could arise. If insurance certificates are not provided and verified by the date shipments or services begin, the organization could have a significant liability risk. If orders aren't shipped by pre-determined ship-by dates, the organization could be at risk of stock-outs. If services professionals don't show up on time, the services might not be completed on time. If performance reviews don't happen, little issues could go undetected until they spiral out of control into big disruptions. (For example, the defect rate could be increasing on each shipment because the supplier decided to make budget cuts that impacted the quality control process and the cuts could prevent serious production issues from being discovered.) It's critical that every obligation, review date, delivery, and service be tracked and alerts defined to notify the right people at the right time when they are coming up, that they are due, and that they are past due and immediate action needs to be taken.

Be Prepared for Conflict Resolution

Even the best laid plans will go awry. Sometimes it won't be anyone's fault, because an earthquake or volcanic eruption that spews ash miles into the air disrupts logistics. Sometimes it will be an organizational oversight, and the orders don't get in the system in time to be transmitted to the supplier with the notice promised in the contract. Sometimes it will be the supplier's fault, because the supplier received the promised notice but, three shipments in a row, ships a week late. And sometimes the party at fault will readily admit it and have a resolution ready. And sometimes the party at fault won't want to admit it or want to take responsibility for the solution. And conflict ensues.

Disputes will arise and will have to be resolved. It's important to have a formal dispute resolution process defined and at least one good negotiator on the project team who can step up to the plate if the dispute cannot be easily resolved by the senior buyer once both parties have brought all of the relevant information to the table and made offers and counter-offers. This is part of good relationship management, which will be discussed in the next chapter.

Chapter 5

Supplier Relationship Management: The Key to Sourcing Success

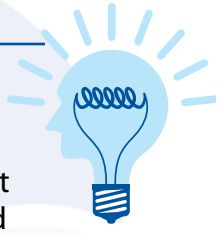
Supplier Relationship Management (SRM), which a few vendors term Third Party Management (3PM), is the process of strategically planning for, and managing, all interactions with suppliers that supply goods and/or services to the organization in order to maximize the total value of those interactions. This comprehensive approach to managing all aspects of supplier interaction through the full strategic sourcing lifecycle is critical to sourcing success and a key requirement to realizing a sourcing plan designed to generate the best overall value for the organization.

SRM is a continuous process. With respect to any sourcing project, it starts when the planning phase begins and continues through the sourcing and execution phase, ending only with respect to a particular supplier when the post-contract project review ends in the analysis phase and the supplier is being retired from service for the categories under contract. This is because supplier interactions start with discovery and invitation to tender, continue through the bidding events and negotiations, require regular oversight during execution, and thorough review on a regular basis and at contract end, and then the cycle begins anew with the supplier when they are selected for another category.

While SRM might appear to be just another facet of good sourcing execution – because it appears to be just a catch-all for the supplier, and supplier related, activities of identification, negotiation, monitoring, and corrective action – it's more than that. Sourcing tends to focus on technology-supported processes, information, and finance – but supply chains run on people. People run on relationships – and relationships need to be managed.

But management is not always easy, because it requires not just a high IQ (Intelligence Quotient) and a high TQ (Technology Competence), but a high EQ (Emotional Intelligence) as well. Planning, goals, objectives, supplier identification, and team management, among other similar tasks, can be easily pulled off by someone with a high IQ. Category management, RFX definition, model building, optimization, and analysis, among other similar tasks, can easily be pulled off by someone with a high TQ. But the leadership, cross-functional collaboration, influence, negotiation, relationship strengthening, and dispute resolution required for a successful relationship requires a high EQ. However, management is still needed throughout the SRM lifecycle.

SRM throughout the Sourcing Lifecycle



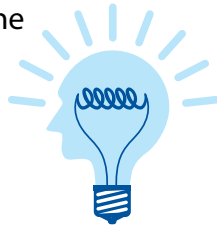
SRM is an ongoing process that starts before the first reach-out to a potential supplier. It continues until and only ends when the supplier or the organization goes out of business. Even if the last contract with a supplier ends, the relationship is still managed as the supplier may be selected in the next event. Similarly, even if a supplier has not yet been selected for a contract, once the first reach-out occurs, the relationship is managed because market conditions can change overnight and a supplier that looks like a poor fit today could look like a great fit next week. This section discusses the key steps of the sourcing lifecycle that require a high amount of supplier management and some keys to SRM success in those steps.

Strategy Selection

It might be easy to be misled to believe that there is no SRM in this step because strategy selection is usually done internally by the sourcing team and suppliers typically do not enter the sourcing lifecycle until they are invited to an event, but nothing could be further from the truth. The strategy that is selected not only determines the amount of supplier interaction, but the type of supplier interaction, the suppliers the organization will be interacting with, and the criticality of those interactions.

For example, if the decision is that the category is a non-strategic category that will be put out to auction to non-strategic suppliers, then the amount of supplier interaction will be limited and the importance of those interactions minimal. The goal will be to get the best deal without offending any suppliers, and the organization will not be focused on building any relationships or going above and beyond the minimal call of duty.

However, if the category is a strategic category that will be tendered through a multi-round RFX, awarded through a decision optimization scenario, and carefully negotiated for delivery with one or more strategic suppliers, the amount of supplier interaction will be high and the importance of those interactions, even with suppliers who do not get the award, but who may still provide the organization with other products or services or be invited back to the next event due to a limited supply base, will be higher still. It will be more about keeping suppliers satisfied with the interaction than squeezing out every last dollar of potential savings.



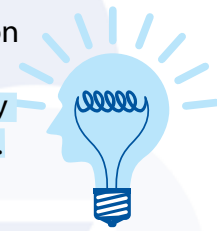
Thus, SRM really begins before the first interaction during strategy selection.

Supplier Invitation

When inviting suppliers to the sourcing event, it's important to craft the right message that not only clearly defines what products and services the organization is seeking, what the key functions and deliverables are, and what constitutes successful delivery, but what the organization is seeking in a relationship. Is the organization looking for an arms-length vendor, a strategic partner, or something in between? It's important that the right suppliers come to the table with the right outlook.

Tender Solicitation

When soliciting tenders it's important to not only clearly define the specifications of the products and services being delivered, as well as the terms and conditions the organization will be expecting in the contract, but the process that will be used to conduct the tender, the opportunities the supplier will have to ask questions and provide input, the evaluation methodology, relevant factors, and associated weightings. What is more important, cost, quality, or response timeframe, and by how much? Clarity and openness goes a long way to building a good rapport with the supplier and conducting a successful sourcing event.



Negotiation and Award

While it might not be the best of ideas to try and be over-friendly in a negotiation where the organization's goal is to get the best result possible without sacrificing a win-win

that will inspire the supplier to do their best, if the category is strategic and the goal of the relationship is a strategic partnership, then it's probably not a good idea to enter negotiations in an overly adversarial manner. A fact-based negotiation approach based on detailed should-cost models and market analysis is probably the best approach.

Compliance Management

Chances are that the supplier will be required to provide proof of insurance, regulatory certifications, and even audits and third party quality assessments on a timely basis. Some suppliers will be prompt, others not so prompt. Sometimes it will be because the supplier customer account manager thought it was taken care of, other times it will be because the supplier got busy and the account manager forgot, and sometimes it will be because the supplier just does not care. Regardless of the situation, it still has to be done, especially if failure to do so puts the organization at risk. But when the organization reaches out to the supplier to get it done, it still has to be done with respect and care. The organization has to assume that it was an oversight and remind the supplier with respect and understanding. And if it becomes clear that the supplier does not care, the organization needs to work out a plan to at least get a minimum performance level out of the supplier while it works on identifying a new pool of suppliers to invite to the next event.

Performance Management

The full value of a sourcing event is only going to be realized if the supply base performs at the expected level. Goods and services have to be delivered on time using non-expedited shipping methods, the goods and services have to meet the quality requirements, and the billings have to be accurate. If any of these, or other conditions for success, are not met, then the expected value is not being delivered and the organization has to manage the supplier, and do so through the relationship. However, this has to be approached in a constructive, how can we help you, manner and not in an antagonistic, three strikes and you're out, manner.

Risk Management

The supply chain is fraught with risk of the economic, environmental, geopolitical, societal, organizational, and technological variety. Some of these risks can sometimes be predicted, like strikes or production line breakdowns when the production line has not been proactively maintained, other risks will come out of nowhere and completely cut off the organization's line of supply, like a tsunami or mine collapse. Some risks can be easily detected by the organization by monitoring news sources for indicator events, such as a natural disaster near a supplier location or border hold-ups as a result of strikes or political policy changes, but other risks are not so easily detected. For example, it's not as easy to identify when a tier-2 supplier does not ship the raw material to the tier-1 supplier on time and the shipment is now 3 weeks late or when a production line breaks down in a supplier's plant and it's going to take almost 2 weeks for the supplier to get a replacement part and start the repair.

In the latter case, only the supplier knows of an impending delay in production and the shipment to the organization, and unless the supplier informs the organization as soon as it happens, the organization has no prior knowledge that a shipment delay or supply chain disruption is coming. With advance notice, the organization might be able to mitigate the delay or disruption by helping the supplier find another source for the raw material, using it's clout to get a replacement part expedited and a repairman on site in two days, or sourcing a replacement product on a temporary basis from a third party, but with no advance notice, there is nothing the organization can do to buffer against the impact of the impending disruption.

In order to insure that the organization is notified of potential issues as soon as they arise, and that it has the opportunity to work with the supplier to resolve the issue before it escalates into a problem, the organization has to have a good working relationship with the supplier.

Change Management

No matter how much effort goes into demand planning, strategy, sourcing, and event planning, even the best laid plans will go awry when market conditions change and organizational direction needs to change. In this situation, the organization will have to work with the supplier to determine the best way to handle the situation. If demand drops, and the organization cannot meet it's minimum commitment, it will have to work with the supplier to determine if the supplier should be awarded alternate business or if it should agree to a slight price increase as the supplier no longer benefits from the economy of scale that it expected when the agreement was made.

And if demand rises rapidly, and the organization expects the supplier to increase production by 30% or more, the supplier may not be able to do so without overtime shifts or an additional source of raw material that might be more costly than its current source of supply. Again, a new, collaborative, agreement will need to be made so that the supplier will want to seek out a new source of supply, take on additional overtime shifts, and, overall, bend backwards to meet the needs of its client.

Conflict Resolution & Corrective Action Management

Sometimes, as a result of a need for change, or as a result of a failure of the supplier to meet a key contractual requirement, there will be conflict and, possibly, the need for a corrective action. This is where having a good relationship is key. It's important that animosity be minimal on each side so that both parties can sit down with the goal to come to a resolution agreeable to both sides.

Post-Expiry Contract Review

At the end of the contract, it is important to conduct a 360-degree performance review, typically referred to as a post-mortem review by project management professionals, that provides honest feedback to both sides, and allows both sides to take away some lessons for future relationship management.

Depending on the performance, or the organizational policy, the supplier may need to be retired from providing the products or services covered in the contract. Even if the supplier performed poorly, it is important that the review and retiring be done in a respectful, honest manner that focuses on how the supplier could improve to increase its chances to win more business from the organization in the future. This will gain the organization respect, give it a good reputation in the marketplace when the supplier talks to its peers, and insure that when suppliers come back to future events, they come back informed and, presumably, improved.

Building The Organization's SRM Foundations

So how does an organization insure that its SRM is good, effective in each key step of the sourcing process, and will lead the organization to sourcing success? Measure, mend, and manage the organization's supplier relationships with this solid twelve-step plan to success.

A) Get Your House in Order (Measure)

1) Engage proactively with all stakeholder groups in a two-way dialogue to find out what is important to the groups and the organization.

For a SRM activity to be deemed successful by the organization, the primary needs of all major stakeholders need to be met. This means that these needs have to be properly defined and understood at an organizational level, not just within an individual organizational unit. Sourcing's goals are not necessarily Engineering's goal and a mutual consensus needs to be achieved before the organization goes to market.

2) Define metrics and KPIs that quantify the important financial and non-financial benefits the organization is seeking.

A key to successful execution of the sourcing lifecycle, as will be discussed later on, is performance monitoring, and a key to good performance monitoring is a good balanced scorecard that not only tracks the key characteristics of the products or services being sourced, but the financial and non-financial benefits that can be used to assess project success and, in turn, supplier relationships. That's why it's important to define the right metrics and KPIs.

3) Information is at the heart of relationship and performance management, so make sure the organization has what is needed to measure, manage, and mend.

Not only does the organization need a great scorecard that is updated and monitored on a regular basis, but it needs to collect, centralize, and collate all relevant information on the relationship as well. Sometimes the non-quantitative notes made by individuals that interact with the supplier, its products, or its services can indicate potential problems before the quantitative metrics start to fall. Good information is key.

4) Benchmark where the organization is today.

An organization that does not understand where it is with respect to its SRM goals, how its definition of SRM aligns to the corporate strategy and business drivers, and where the biggest gaps in its SRM process are, will not be properly focused. As a result, it is unlikely that the organization will be successful in aligning suppliers to the business or achieving relationship success. Thus, the first thing that an organization needs to do is conduct an honest assessment to find out how it is doing.

5) Identify gaps and prioritize gaps according to their biggest impacts.

The greatest success comes from focusing on those activities that will have the biggest impact. Where SRM is concerned, the activities that will have the biggest impact are those that close the most important gaps and build the strategically important relationships. For example, if a key part of organizational strategy is sustainability, and marketing depends on it, but most of the organization's suppliers trail their peers in energy utilization, water utilization, and waste reduction, the organization has either not been effective in identifying the right suppliers or in working with those suppliers to improve processes to meet sustainability goals. And if the situation is not corrected, the organization's reputation, and sales that depend on that reputation, could be in jeopardy.

6) Identify and fix organizational failings.

Sometimes the quality problem will be the fault of the supplier, but sometimes it will be the fault of the organization. For example, let's say the organization insists on an inferior material be used to keep costs down, despite supplier protests, then the organization may be the reason the product quality is poor. Or, let's say the supplier consistently gets rated low on IT services, but the organization never took the time to define what the database resource was needed for. Schema definition and query optimization are typically two different skill sets, so if the organization asks for a database architecture expert when an optimization and query expert is needed, of course the architect is going to do the job slower and poorer than a resource with the other skill set. The organization needs to identify its own failings and fix them if it expects its suppliers to do the same.

B) Work with Your Suppliers To Close the Gaps (Mend)

7) First properly segment the supply base into critical, strategic, and non-strategic.

Now that the organization has identified what is important to its stakeholders, has identified its strengths and weaknesses, and generally has its house in order, it can segment each group of suppliers into sub-groups that would benefit the most from a formal SRM program and those that would benefit the least. It's important to focus limited resources and efforts where they will have the most impact, starting with critical and strategic suppliers who need help.

8) Then take a proactive, collaborative, approach to issue identification, resolution, and relationship development.

The organization has to always be on the lookout for opportunities to improve the relationship. Scorecard monitoring and information monitoring is a good start, but taking every opportunity to collaborate, to provide the supplier with the information, and sometimes the tools, it needs to improve, and to just improve working relationships will pay off over time.

9) And, finally, listen to Suppliers.

Understand how the supplier perceives the organization as a customer, where they think the organization, as a customer, can improve, and what innovation the supplier believes it can offer the organization. This is key to defining appropriate development programs and effective performance measurements.

C) Then Grow the Relationship (Manage)

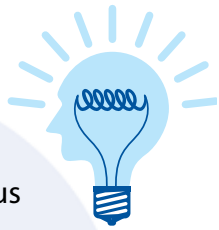
10) Make sure the organization has the best talent in Sourcing.

It is critical that the best relationship manager the organization can get is responsible for its supplier relationships, not just the office manager who was shoved into the account management role. The relationship manager needs to understand not only what the organization expects, and needs, but how to design and manage supplier development programs, and how to work with suppliers to get results. And this person definitely needs to be a people person.

11) Interact with suppliers on a regular basis remotely and in person.

Supplier relationships are between people, and like any other relationship, they need to be nurtured and maintained. This requires regular communication, collaboration, and socialization.

12) Leverage sell-side strategic account management.

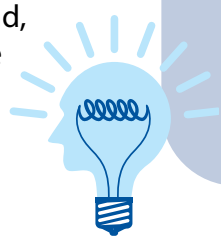


Just like a salesperson is always using the latest techniques to identify synergies and convince the organizations' customers that continued purchasing from the organization is a win-win, Sourcing should always be on the lookout for opportunities to collaborate more closely in win-win situations that will encourage the supplier to focus on the organization's needs first because it wins more serving the organization than the organization's competition.

Chapter 6

Next Level Sourcing. Direct is just a Dribble

Unless the majority of an organization's spend is indirect, the average Sourcing organization will acquire an advanced sourcing solution with the intent of tackling the organization's direct spend that it believes is the organization's biggest opportunity. This might be the case, especially if the organization never applied an advanced sourcing approach to the category before, but if the direct category has been aggressively sourced for a decade, the savings might be less than the organization expects. On the other hand, an indirect category, of half the spend, might hide an even greater opportunity because the overspend is in the double digit percentages. The reality is that indirect spend categories often hide significant savings opportunities, especially if they have never been strategically sourced.



Indirect Categories with Huge Hidden Indirect Savings

Three big categories that often hide savings opportunities are marketing, legal, and contingent labour – categories which are often the sacred cows of the organization.

Marketing

Marketing is often resistant to release any control over their budget because they insist, and rightly so, that it's not how much is spent on the talent, it's the talent the organization gets assigned to its account and the ROI (Return on Investment) that the talent brings. But what Marketing typically doesn't realize is that when they outsource media projects, they are not just buying talent, they are buying materials and renting equipment. In print projects, they are buying printer and ink. In radio and TV projects, they are buying microphone and camera rentals, mixing equipment rentals, and other post-production rentals. And they are buying services. The time of the print shop employee to program and monitor the print jobs. The time of the cameramen and / or sound technicians. The post-production professional's time. And so on. Printer and ink is commodity spend. The time of a copy technician, cameraman, sound technician, and, unless a lot of special effects are needed, a post-production technician can also be obtained at average market rate and there is no need for overspend in any of these categories. And unless these subcontracts are carefully scrutinized, there is a good chance the agency being contracted for the talent that is managing these subcontracts is not only charging for the management but paying above market rates for all of these products and services because they are spending other people's money and see no need to aggressively negotiate.

Legal

Legal is often resistant to release control over any of their budget for the same reason. Sometimes when the organization needs outside council, it needs the best outside council it can get to write the best contracts possible, build the best defense possible, and mitigate unnecessary risk. This council will often be pricey, but spending a little extra to make sure the organization isn't exposed to costly lawsuits, or to prevent expensive judgments against it by bringing a better case than the plaintiff to the courtroom, often generates a ridiculous ROI. However, this is only the case when a lot of money is on the

line, or potentially on the line. This is generally not the case when the organization needs a standard real estate purchase or rental contract, employment agreement, NDA, or other standard legal offering that even a first year graduate in the top half of her class can't mess up.

But this is just one area where Legal could be overspending, just like paper and ink is just one category where Marketing typically overspends in spades. Another area where Legal typically overspends is consumables. Printing, copying, and courier services. Paper is cheap and courier rates can sometimes be cut almost in half with good negotiations. Sometimes it is as simple as forcing the law firms to use the organization's courier account. And a third area where Legal often overspends is e-Discovery. There are multiple software solutions on the market and multiple firms of equal competency. A good negotiation can cut cost here considerably as well.

Contingent Labour

The third indirect category which usually hides a lot of savings, especially if the organization uses a lot of temporary personnel, is contingent labour. This is especially true if the organization uses a lot of different types of temporary labour and decides to just take a one-size-fits-all approach and go with a big firm. Most firms specialize in one type of contingent labour and can, or will, only offer competitive rates for resources that they have a number of and that the organization will guarantee a certain number of placements for. In addition, if a certain category of resources represent the majority of organizational spend, they will focus on offering good rates for resources in that category and try to get away with charging the organization more than necessary in the minor categories knowing that the organization probably won't bother trying to nickel-and-dime the supplier on the secondary categories in the negotiations. But if the organization is overspending by 10% on 30% of spend, that's still a 3% overspend and a big savings opportunity. A combination of more competitive negotiations or category splits among different contingent labour providers can often identify significant savings opportunities. The author is aware of a number of sourcing events that identified significant savings when the category, and the sourcing event, was properly defined. But this is just the first level of savings that can be found in contingent labour.

However, it's not just indirect categories that often hide significant savings. Sometimes direct categories, approached from a new, multi-level, perspective can sometimes hide unexpected savings opportunities as well.

Multi-Level Sourcing Magnifies Monetary Savings

Attacking an indirect category is just one approach beyond direct category sourcing to identify potential savings. Another approach that typically culminates in success is approaching a category as a multi-level category, and considering sourcing options at the global, regional, and local level. The exponential complexity of trying to consider local, regional, and global quotes simultaneously and trying to figure out what set of bids can completely cover a demand, and do so at the lowest cost, has prevented most organizations from even considering this possibility. Thus, the typical strategy has been to designate a category as global, regional, or local and source at that level. But sometimes a mixed approach is optimal. Sourcing globally, but overriding regionally where a regional provider can provider cheaper or better options and then overriding again locally in the few locations where the global or regional provider couldn't supply a service or couldn't service the organization at a reasonable cost.

Three big categories that often hide multi-level savings opportunities are amalgamated services, multi-modal freight services, and make vs. buy decisions.

Amalgamated Services (Global vs. Regional vs. Local)

Our last section said that properly defining, delineating and negotiating contingent labour represented a significant savings opportunity and that it was just the first level of savings that can be found in contingent labour. The next level of savings is found by taking a multi-level approach and allowing all vendors at all levels to compete and offer the best talent they can at the best prices they can in the locales and regions where the workforce is actually located. The author has seen events that have identified 30% to 40% savings by allowing all providers who can offer a subset of services to bid. This is one category where consolidation with a small number of big manpower organizations often does not make economic sense at all.

Multi Modal (Air vs. Sea, Rail vs. Truck)

Due to the complexity of trying to consider all of the options associated with trying to ship something from Shanghai to San Francisco or from Mawlamyine to Miami, an organization will typically define a shipping lane and then get full-service 3PLs and individual trucking, ocean freight, and/or rail providers to quote on the lanes and select the best offer. But sometimes a mixture of rail and truck on land and air and ocean for overseas freight using primary and secondary freight lanes can save a lot of money since high-value, dense goods can often be shipped competitively using air freight from secondary airports to secondary airports.

Make vs. Buy (Assemblies vs. Sub-Assemblies vs. Parts)

This is especially relevant in categories such as IT hardware where sometimes it makes sense for an organization to buy components from different suppliers and then assemble the final product in-house or even have a third party assemble the final product and deliver to the retailer, or drop-ship to the end consumer, on the organization's behalf. With

dozens of providers to pick from for each component and dozens of sub-assemblers to choose from, the possibilities are almost limitless and incalculable for an organization that does not have an appropriate solution for advanced sourcing. But for an organization with an advanced sourcing solution backed by decision optimization, the endless possibilities can be captured and simultaneously evaluated and the best options quickly identified.

In other words, traditional sourcing on direct categories is a great start, but indirect categories, and complex multi-level tenders on both direct and indirect categories can also pose a great opportunity for a Sourcing organization that is looking for additional cost reduction opportunities. The examples above are just a few categories where additional opportunities can be found, but they are a great start.

Chapter 7
Summary

Gone are the days when a sourcing manager only needed a catalog, a phone, and a pen to ink the purchase order. In today's sophisticated operational environment where lean "just in time" inventories, outsourcing, supply base reduction, centralized distribution, more products with faster launches, low cost country sourcing and supply chain globalization in highly volatile markets is the norm, a sourcing professional needs a more sophisticated methodology to succeed.

That methodology is the strategic sourcing lifecycle described in this book. With a proper application of the strategic sourcing lifecycle described in this book, an organization will be able to, among other things

- appropriately manage a lean supply chain to prevent an increase in the rate of stock-outs
- consolidate the supply base in an efficient and effective manner that reduces complexity without increasing risk
- use cross-docking to centralize distribution from multiple suppliers to multiple warehouses in an efficient and cost-effective fashion
- jointly innovate with suppliers to create streamlined designs that support faster production and launch schedules
- compare local, regional, and global suppliers to find the best overall product and service mix for the category

However, it is important to note that while this book outlined the strategic sourcing lifecycle end-to-end, all it did was lay the foundations. Every category, every product, and every service will be unique and could require its own customized strategic sourcing workflow in order for sourcing to achieve an optimal result fully aligned with organizational strategy. However, with the foundation contained herein, a sourcing professional will be able to create that workflow under the guidance of an appropriate category expert, who will be an integral part of the sourcing team, and achieve success.

Appendix A

A Deep Dive into the 4 - Phases of the Sourcing Process

As discussed in Chapter 1, proper strategic sourcing is a four-phase, multi-step process that starts with an identified opportunity and ends with identification of the next opportunity and goes through the planning, sourcing, execution, and analysis stages. Good sourcing doesn't just happen, it is planned. It takes strategy, hard work, analysis, fact-based negotiation, careful execution, performance monitoring, and incident resolution.

The sections that follow will discuss each of these four phases, as well as their primary contributions to the strategic sourcing lifecycle, in more detail to assist a buyer in identifying a deeper understanding of what happens in, and what is required by, each phase.

The Planning Phase

Before any activities begin, the project has to be appropriately scoped and planned. Technology provides a new tool box but the carpenter still needs to choose the right tools for the job – a buyer shouldn't run an open auction when demand exceeds supply, or a multi-round decision optimization for a low dollar office supplies buy. Choosing the right set of tools, and processes, for the job at hand only happens with proper planning.

The planning phase generally consists of the following activities: establishing the business case; selecting the right team, assessing the risks, identifying the right strategy, which should include identifying the exit conditions, outlining a project management and execution plan, and, most importantly, producing detailed specifications and requirements.

The Business Case

Before a sourcing project begins, the business case should be reviewed and validated. The foundations for the business case should come from a category analysis that leads one or more individuals to believe that a focused sourcing event will result in generated value to the organization, where that value should include cost control if not cost savings. If the category analysis was performed properly it should include a spend analysis that determined spend was significant, variable or above market rates, and contained opportunities for cost or complexity reduction by way of a strategic sourcing event. If an analysis was not done, then the sourcing team will need to do one, maybe from scratch.

A good business case will define, at a minimum:

- the scope of the category (and the products and services it contains),
- the business drivers for (strategically) sourcing the category,
- the risks associated with the category,
- the strategic options that have already been identified, including their impact on the hierarchy of supply,
- the current costs,

- the expected costs based on a should-cost model and/or market intelligence, and
- the assumptions behind the analysis including the risks, costs, and options.

Before a considerable amount of time is invested pursuing a savings opportunity, the opportunity should be real. More importantly, it should be one of the best opportunities the organization could be pursuing. It's not the dollar value of the category that matters, it's the dollar value of the savings opportunity.

Sometimes a big category, which has been heavily analyzed and negotiated in the past, contains very little savings opportunity under the current market conditions while a mid-size category that has never been strategically sourced contains a large savings opportunity. For example, the author has seen situations where Sourcing organizations have expounded a lot of effort to get a 3% savings on a 100M direct materials category, for a net savings of 3M, but ignored a 30M contingent labour category which could hide a 30% savings opportunity, which would net the organization a hard 9M. (The author has seen repeated examples where a properly structured complex multi-level tender on services has identified savings of 20% to 40%.) In other words, the smaller category had three times the savings opportunity in real terms and that is what matters in the end.

Generally speaking, Sourcing should pursue the biggest savings opportunity first because, despite all the talk about how Sourcing should be a value-generating department aligned with the overall enterprise strategy, most organizations still measure Sourcing primarily on cost savings. However, sometimes the biggest opportunities will be those categories where the organization has been experiencing, or is at risk of, regular disruptions which result in revenue loss on stock-outs; where consolidating the supply base to suppliers of other critical components would simplify supply base management, reduce administrative and process overhead, and allow the sourcing team to improve supplier relationships; or where there is the potential to source value-add services with a product-based category and either save on a related services category or decrease the cost of organizational service offerings. However, without a proper business case, the opportunity cannot be properly quantified and compared to other opportunities.

Team Selection

Once the business case for the sourcing event has been validated and before serious planning begins, the first step is to select the right team. Sourcing cannot be strategic without the right plan, which can only be created by those with the right knowledge and ability.

Strategic sourcing requires, at the very least, deep category knowledge, expertise in proper sourcing processes and technology platforms, negotiation, contracting, and relationship management. The likelihood of one individual having all of this expertise is low. As a result, a typical sourcing project will require, at a minimum, a buyer, a representative of the internal category client, or stakeholder organization that controls the budget, who is the category expert, support from a representative from legal, a supplier relationship/account manager, and a representative from the organization that will be using or selling the product or service.

When selecting the team, keep in mind that this is the core sourcing team selecting the suppliers to meet the needs of the organization, and not the acquisition or contract implementation team. Only the key stakeholders empowered to represent their departments in supplier, and solution, selection should be on the team, as the team will often need to work lean and mean (especially if the market is dynamic or the project needs to be completed quickly. Remember, the more people on the project team, the greater the communication complexity, and the longer the project will take). In addition, when selecting this core team, be sure to keep the following three principles in mind:

- **diversity**
  each team member should bring a different and unique perspective;
- **effectiveness**
  the team should be large enough to execute the project efficiently and effectively, and have all of the required skills and knowledge, but not so big that more time is spent in meetings and communication than execution; and
- **organizational coverage**
  in a functional organization, every affected department should be represented; in a matrix organization, each affected product line should be represented as well as each affected department; and in a project organization, the relevant project team should be included.

Risk Assessment & Contingency Planning

Once the team is selected and before the strategy is finalized, a critical, but typically overlooked step, is the risk assessment. What are the risks associated with the category, the current supply base, and the potential supply base. Raw material shortages? Hazardous chemicals? Logistics challenges? Disruptions due to natural disasters? The risks, their likelihood, and the organizational impact if any of the risks materialize must be well understood before the strategy is selected.

Risk assessments can be rather involved. Depending on the category, the sourcing team may need to consider:

- strategic risk
- operational risk
- compliance risk
- financial risk, to the organization
- financial risk, in the supply base
- product or service risk
- fraud risk
- market risk
- credit risk
- supply chain risk
- security risk
- information risk
- audit risk

If the category is critical, and disruptions could be costly, then mitigations may need to be undertaken as part of the sourcing project. For example, part of the strategy might be dual allocation or partial allocation to suppliers in two different countries because the category is a basic food commodity and a drought or natural disaster could easily wipe out a large portion of the crops of all suppliers in a region.

While it may require a lot of work to create a good contingency plan, the process of doing so is straightforward.

- Identify any specific regulatory requirements that need to be adhered to
- Flesh out the business impact assessment dictated by the identified risks
- Identify and implement preventative controls and measures
- Develop recovery strategies
- Develop worst-case contingency plans
- Communicate the plan and train on implementation procedures
- Maintain the contingency plan as a living document

In addition to the risks, and the potential mitigations, the team also has to determine how it will monitor for potential risks. What are the indicators that a disruptive event has occurred, and how will the organization detect those risks? For natural disasters, strikes, border closings, and similar events, the organization simply needs to monitor global news sources to detect these occurrences, and then manually review the news stories to see if the disruption will affect the organization's supply chain. Internal production line failures, communication network failures that only affect one supplier location, lost trucks, and similar situations that are localized will be much harder to detect, if not impossible, unless the organization is actively seeking out information whose absence could indicate that such risks may have materialized.

While risk analysis is a significant exercise, it is an exercise that cannot be overlooked as it is often critical in the identification of the right sourcing strategy. It helps the sourcing team to identify an award allocation that minimizes risk, or at least results in enough savings to cover the cost of a mitigation strategy if a risk materializes, and to define risk signals that can be monitored during contract execution to identify potential disruptions as they happen, and not weeks or months later when the shipment doesn't show up on time.

Strategy Formulation

Depending on the market conditions, that should have been identified in the analysis phase; the category characteristics, that should have been elucidated by the category experts in category definition; and the category risks, that were identified during risk analysis; the strategy could be an auction, a weighted RFX followed by negotiation with the highest ranked bidders, or an RFX backed by sophisticated decision optimization between rounds to identify the best solution to the complex tender. There is no simple rule that can be used to quickly sort events into different strategy buckets.

For example, a buyer might think that office supplies can simply be spot buys that result from a single stage RFP or auction, because it's a relatively low value category to the

company, a commodity that a dozen vendors can supply, and not all that important, but this isn't always the case. It depends on what products are included in the category and how big the absolute spend is. For example, it used to be the case in North America that many office supply vendors had list prices that were at least 40% above their costs, because their sales strategy was to list an item expected to be popular at MSRP, buy in bulk from the manufacturer for a huge savings, and then sell that product at what appeared to be a very attractive 20% discount to the market. Moreover, without a one-on-one negotiation, the supplier, that did very well in the small business market, would typically offer the same deal in their template RFP response, because a quote does not guarantee a purchase order or a contract with a guaranteed volume purchase.

In other words, the organization might save a few percentage points using a spot buy strategy, but there will still be a lot of money left on the table if the absolute spend in the office supply category is 10 Million or more. Furthermore, if the office supplies category includes printer ink or electronics purchases which could also be included in the hardware category, the organization might have the potential to negotiate a larger discount direct with a manufacturer if the organization is planning to commit to a large server purchase from that manufacturer as well. The same goes for categories that are assumed to be negotiation only, such as custom made components or products that could be made at a dozen different factories using a couple of different processes and could be sourced using an optimization-backed auction once suppliers have been vetted, and categories that are assumed to be complex tender but do not need to be because the category was just sourced using optimization against a complex tender two years ago and, with current market conditions, renegotiation with the incumbent suppliers is the best strategy.

The importance of the right strategy cannot be underestimated. It can be the difference between a highly successful event with double digit savings and a lackluster event that identifies some savings or value, but not enough to be declared a resounding success.

If the organization is not sure how to go about identifying and selecting the right Sourcing strategy, a good generic starting point is the Kraljic Portfolio Purchasing Model. Once the organization has applied the Kraljic Model, it has a good understanding of the category, market, and primary supply strategy and can then use this information to determine whether the best course of action is an auction, RFP followed by negotiation, or multi-round RFX with decision optimization, as per the information provided in chapter 3.

Kraljic Portfolio Purchasing Model

The Kraljic Portfolio Purchasing Model is a Sourcing model that was created by Peter Kraljic that first appeared in the Harvard Business Review in 1983. Even though it's three decades old, it's still a good starting model for those organizations that are beginning their strategic sourcing journey that is still used in Global 3000 companies today.

Use of the model involves three steps:

1) Purchase Classification
2) Market Analysis & Strategic Positioning
3) Action Plan

Purchase Classification

The first step is to classify the category according to supply risk and profit impact along a normalized scale. A category that is low risk and low profit is classified as non-critical, a category that is low risk and high profit is classified as leverage, a category that is low profit and high risk is classified as bottleneck, and a category that is high profit and high risk is strategic.

Strategic items are those that need to be strategically sourced as they present the greatest opportunity. Bottleneck items are those for which supply assurance needs to be addressed, but due to the lack of leverage, may simply entail incumbent negotiations and contract extensions. Leverage items are those that need to be leveraged for cost savings, but don't necessarily need a lot of effort to leverage (and are often good auction candidates). Non-critical items are those that can simply be bought on the spot market as the risk is low and the chance of saving money is even lower.

Market Analysis & Strategic Positioning

The next step is to understand the organization's relative buying strength compared to its suppliers, and the market dynamics that will be at play when the organization goes out to market. This is typically done using Porter's Five Forces analysis that analyzes the bargaining power of the buyer, the bargaining power of the supplier, the threat of substitutes, the threat of new entrants, and any industry rivalry that is currently taking place. This allows the organization to understand the firm's strategic position with respect to each supplier invited to the table and for a very strategic or complex category, provides a starting point for a more detailed value chain analysis which might serve to identify additional cost saving or value generation opportunities.

Action Plan

Once the organization understands the market and its relative strength in the market, it will map its strength as a buyer to the collective supply market strength for each product in the category and, based upon this mapping, will determine if the basic supply strategy should be to diversify the supply base, exploit the market opportunities through consolidation, or find a happy balance between the two.

Exit Plan Selection

Once the event strategy is selected, and before the sourcing event begins, the next step is to decide upon a contract exit strategy. Sometimes even the best laid plans do not work out for various reasons. Maybe consumer demand drops for reasons beyond the organization's control which could happen when a competitor releases a newer product months before it was expected, maybe the relationship just doesn't work out because the defect rate is high and the quality is significantly inferior to the samples provided during the vetting phase, and maybe the supplier can't supply on time because the supplier's lack of risk mitigation planning resulted in the supplier being unable to get critical raw materials.

The organization needs to know when it might need to get out of an agreement, and make sure clauses are included in the contract that allow it to get out of the contract if certain situations do arise. If these situations are not identified up front, they will not be addressed during negotiations and contract drafting, and nothing will be able to be done after the fact. The last thing an organization wants is to be locked into a sole source contract when the supplier states it is going to be three months late on a critical delivery. However, if the organization identifies the situations where it needs out, and the supplier accepts those situations as part of the contract, the organization will likely find that the supplier will proactively take measures to prevent that situation from ever occurring.

Project Management & Execution Plan

Now that the business case has been validated, the team selected, the risks assessed, the strategy selected, and the exit conditions defined, it is time to create the project management and execution plan. In this phase, the senior project manager, who will usually be the buyer, will put together a sourcing project plan that will cover the sourcing, execution, and analysis stages of the sourcing cycle. This will, of course, require a good understanding not only of what each phase entails but what it will entail with respect to the category in question. It will often require input from the entire team to produce a good project management and execution plan that is realistic and accurately captures the complexity of the project. Without a detailed plan, sourcing often takes longer than expected, key execution phases are late, and the right performance analysis never happens. Not only does the sourcing organization risk losing out on some of the value inherent in the category, which can happen if sourcing is unable to take advantage of the perfect market window for sourcing a category, but the sourcing organization also risks missing out on value in other categories if extra time needs to be spent on the sourcing of the current category due to a lack of proper planning.

The project management plan should, for each key activity in each step of the sourcing cycle, identify the key team members, the activity owner, the expected start time, the due date, the key deliverables, and the exception management process if something goes wrong. It should also include a Gantt chart that details each step of the process, each key task in each step, and the resources assigned to the tasks.

The Sourcing Phase

Once planning is complete, the sourcing phase, which is the heart of the strategic sourcing lifecycle, begins. When executed properly, this phase starts with contract drafting and ends with contract signing, even though contracting is only a small part of the overall strategic sourcing project.

Contract Drafting

While contract drafting typically does not precede the beginning of the RFX process, and the building of the RFI (Request for Information), RFP (Request for Proposal), and/or RFB/RFQ (Request for Bid/Request for Quote), in a strategic sourcing project, it should. The act of drafting a blank contract with everything but the supplier specifics, product and service codes, and prices helps the sourcing team put into perspective exactly what they are seeking as an outcome of the sourcing project.

Even if this version of the contract is never used, because the team uncovers a better option than they expected during the sourcing project, such as an alternative material or product that will meet the organization's needs, it helps the team understand the sourcing project needs and goals in detail. The contract draft should include all of the organization's standard terms and conditions as well as all of the specific terms and conditions that will be needed to make the sourcing project a success. For example, if the organization needs a short delivery window because the company is in a fast moving consumer goods market and this is absolutely necessary to meet market demands and minimize the risk of stock-out, this needs to be in the list of necessary, non-negotiable, terms and conditions.

The reason that the T's and C's should be complete is that a well-formed RFX process provides critical information to suppliers up front and makes the suppliers aware that they will need to be able to meet mandatory terms, and agree to them during contract negotiations, if they desire the organization's business. This allows suppliers to self-qualify during the initial stages of the tender process and should prevent surprises during negotiations after an initial award has been made. If the supplier was informed of an absolute requirement during the RFX process then they cannot claim ignorance during negotiations.

Supplier Qualification

Once the contract has been drafted, the success goal defined, and the terms and conditions specified, the next step is to identify potential suppliers and qualify them for the sourcing event. Supplier identification can take various forms: existing suppliers, previous bidders, market research, and supplier self-nomination through public calls for expression of interest. However, regardless of the form supplier identification takes, once suppliers are identified, they need to be qualified to bid.

This will typically take the form of a Request for Information (RFI), which could be conducted in multiple phases, that will insure that the supplier is likely able to provide the necessary goods and services, at sufficient levels of quality, in the desired timeframe, in a manner consistent with organizational policies, brand, and culture. This last part is the

important part. For most organizational product or service needs, there are likely dozens of suppliers that can fulfill the base need, but not all will be appropriate suppliers for the organization due to a conflict with organizational culture or goals.

For example, if the organization is risk averse, a small supplier with weak financials might not be the best choice as the constant fear of disruption will loom in the air. If the organization wants to be seen as a leader in sustainability, a supplier that still uses old production processes that waste water and energy might not be the best choice. And if the organization wants to project an image of good corporate ethics and social responsibility, selecting a supplier with a recent track record of workers' rights violations in its supply chain might not be the best idea either.

That's why the first step in any supplier selection process is to identify a supplier that fits with organizational culture, has a similar viewpoint on ethics and responsibility, and shares the organization's vision. For example, if the organization prides itself as an innovator, then it should try to find suppliers who are innovation focused as well.

Once a potential culture fit has been confirmed, the next step is to make sure that the supplier can handle the scale and complexity the organization requires. If the organization is global and requires products to be shipped globally to multiple countries, requires support in half a dozen languages, and requires the supplier to have expertise in local export regulations and free trade zones, these are critical requirements. The best product in the world is useless if the organization cannot get the product to where the product needs to get and obtain support in the languages its personnel need to be supported in.

Only once a cultural fit has been identified and the ability of the supplier to meet the scale and complexity that is required does the organization focus in on the capability of the supplier to deliver a high-quality product and service in the required timeframe. Even though this can be a considerable amount of effort if the organization is looking for a new contract manufacturer for an innovative high-end consumer electronics product or an aircraft engine sub-assembly, it's often still the easiest task because the internal customer expert, who was involved in the sourcing project planning stage, will have a good understanding of the detailed requirements and can help build the RFI appropriately.

A proper supplier qualification process, while time intensive, is important as it insures that every supplier invited to bid is capable of meeting organizational needs and once an award has been made, the focus can be on simply negotiating the final terms and conditions of the deal and not manufacturing, delivery, or service capabilities. Proper qualification insures that the organization is able to identify which suppliers cannot service 100% of the organization's target market during the qualification phase. This in turn insures that proper models are built and only award scenarios that suppliers are able to meet are considered.

Invitation to Tender Package and Supplier Notification

Once the suppliers have been qualified, the next thing to do is to invite the suppliers to bid. This is more than just sending the suppliers a congratulatory invite, it is congratulating them on making it through the qualification process, giving them constructive feedback on areas where they appear to be weak and may need to improve, providing them with a complete description of the products and services being put out to bid, notifying them of

all of the mandatory terms and conditions that will need to be agreed to, sending them a full invitation to tender package, and laying out the sourcing process that will be followed and the initial timeline, which is subject to change subject to events that unfold, along with the process that will be followed when changes to the process or timeline are required.

If the planning was done appropriately, the core product and service requirements will already have been specified during the supplier qualification phase and completing them shouldn't take too much work; the mandatory terms and conditions would have been specified during contract drafting; and the process and timeline would have been outlined during the strategy and project planning phase and should only need minor adjustments. The amount of work to complete the tender package should be minimal if everything was addressed properly in the preceding phases.

RFX and Tender Evaluation

Regardless if the strategy is (e-)auction, decision optimization, or just a weighted multi-round RFX interspersed with negotiation, every sourcing project starts with a request for proposal, quote, or bid. If the strategy is e-Auction, the initial bids will be used to seed the auction which will be run according to the specifications provided to the participants. (See the section on auctions in chapter 3 for details.) If the strategy is multi-round negotiation, the initial bids will be evaluated, feedback will be provided, and a subset of suppliers will be invited to bid again. Bidding rounds will continue until only a handful of suppliers remain or preferred suppliers for negotiation have been identified. Then the tender will be evaluated according to the relevant factors and weightings that were defined, and the winning suppliers invited to negotiations.

(e-) Negotiation

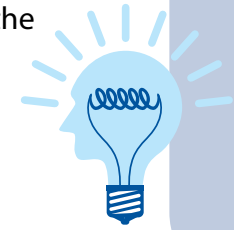
Once a set of suppliers have been selected for an award, negotiation begins. Depending on the sourcing strategy, the negotiation will either take the form of an online auction or an in person negotiation, which might be backed by the results of an optimization model that is run between negotiation rounds. In the case of an auction, the auction will take place at the specified time and last for the specified duration, which may be automatically extended to prevent a supplier from waiting to submit a bid until no other supplier will have a chance to respond, a practice known as sniping for those readers familiar with the forward auctions run on e-Bay. Otherwise, negotiations will continue until both parties reach an agreement.

Contract Award

When negotiations are complete, a contract will be signed, possibly with an e-Signature, and then the execution phase of the sourcing process will begin. Once the contract is signed, the first step is to enter it into the contract management system and insure that the obligations for both parties are tracked, the updated price lists are pushed into the sourcing system, and any important contract related events – such as performance reviews, on-site audits, and expiry – are captured in the contract timeline. This will typically be captured in the metadata which will be cross-indexed for easy search and access.

The Execution Phase

Once the sourcing phase is complete, the execution phase begins. In many organizations that have not reached a high level of sourcing maturity, execution consists of handing the contract off to a junior buyer or the category owner for sourcing of the goods and services until a few months before renewal time when the next sourcing event begins. However, there is a reason that many organizations fail to capture 30% or more of negotiated savings, and that reason is that a senior buyer fails to monitor execution.



If planning was thorough, sourcing was deliberate, and the suppliers are focused on mutual success, the total time required by the senior buyer in the execution phase over the course of years will be less than the time required during planning and sourcing, but this time is still critical to ensure success. The reason is that success depends on catching, and correcting, minor issues before they balloon into big problems or, even worse, supply chain disruptions. Even a landslide starts with a pebble, and even if the landslide cannot be stopped, with an early warning system, a person can get out of the way.

Task Management and Workflow

A typical contract for goods will consist of verification of insurance and / or certification requirements, regular orders, inventory reviews and order adjustments, quality reviews, supplier performance reviews, and rebate/return recovery at pre-defined times and intervals. These tasks will appear in the project timeline and, even if not conducted by the senior buyer, should be monitored by the senior buyer. If critical insurance or certification certificates are not provided in a timely fashion, this could place the organization at significant risk of financial liability; if too many units are rejected by the warehouse in an order, quality could be at risk and an investigation, and possibly even a corrective action, is required; and if the overall supplier scorecard drops into the yellow warning zone – because deliveries are consistently late, quality is not improving, or issue response time is poor – an in-person review, discussion, and jointly agreed upon correction plan will be required.

Proper strategic sourcing requires that the senior buyer or project leader stay on top of the execution workflow, monitor or lead critical tasks, and step in and take charge when things start to go away. Correcting a minor issues before it becomes a major problem is the best way to prevent a supply chain disruption.

Change Management

Even the best laid plans can go awry for reasons that cannot be predicted or prevented. A smart Sourcing organization is prepared for change to happen on a regular basis. A number of unexpected situations can arise during the execution phase of a sourcing lifecycle. For example, if an organizational competitor wasn't as meticulous in their sourcing process and selected a risky supplier who went out of business, a lack of availability of that competitor's product could cause a surge in demand for the organization's product. As a result, Sourcing will need to ramp up inventory quickly, which could require all of the suppliers to add a third shift and expedite delivery through air-freight. Since air-freight is considerably more expensive than ocean freight, the

organization may find itself in the position where it has to negotiate new, temporary, air-freight logistics contracts and bear additional costs in the short term. This is just one example where a good change management process is a critical part of execution. An organization never knows when change management, and contract amendments, will be needed.

Change management depends on proper preparation, management, and continual improvement.

Preparation consists of three main activities:

1) **Definition of the Strategy**
   How will the need for change be identified, what is the process to report the need for change, and when a need for change has been identified, who kicks off the process?

2) **Team Training**
   The team needs to be trained on the change management strategy – how to report the need for change, how to kick off the change management process, and what to do in each stage.

3) **Sponsor Identification**
   The change management process needs a sponsor just like a successful sourcing process needs a sponsor.

Management consists of two main activities:

1) **Plan development**
   What is the plan? A good plan addresses the current situation, the risks involved, potential disruptions, and what needs to be done if a disruptive event happens and a change in the typical process or supply strategy needs to take place to remedy the disruption.

2) **Plan implementation process**
   If a change is required, the process for communicating and kicking off the need for a change, as well as the change itself, needs to be well understood and ready to be put into action.

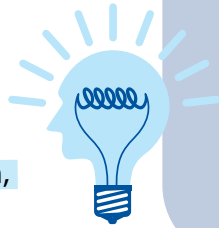
Continual improvement consists of two main activities:

1) **Feedback Analysis**
   as not everything will work well the first time, and improvement depends on listening to the feedback and finding ways to decrease inefficiency or complexity.

2) **Gap Analysis**
   if a change or a fix fell short, what needs to be added to the change management process to insure that the next change doesn't introduce a new deficiency into the process or supply strategy.

Performance Management

One of the first actions that the senior buyer should take once the contract has been signed and set up in the contract management system is to define the supplier scorecard. This will need to be monitored on a regular basis to not only ensure that the supplier is performing up to expectations but to detect potential issues early so that they can be corrected and resolved before they manifest into big problems. The KPIs in the scorecard will be heavily dependent on the category, but should measure cost performance, quality performance, delivery performance, internal customer satisfaction, responsiveness, and any key metrics that measure the strategic, or tactical, nature of the relationship.



While performance management is as much an art as a science, since it is heavily dependent upon people and relationships, there are some best practices that will almost always yield good results. These are:

- create an appropriate supplier governance team,
- make technology (platforms) work for you,
- define appropriate levels of performance tracking, risk, and control, and
- focus on sustainability.

Relationship Management

With all of the focus on the physical, financial, and information supply chains by today's strategic sourcing solution providers, it's easy to forget that despite all of our technological progress, supply chains are still managed by people. People control the machines that produce the goods, people control the flow of money and people input the data that modern supply management systems turn into information and, hopefully, actionable insight. As a result, it's important that the relationship is appropriately managed. That's why all of chapter 5 was devoted to Supplier Relationship Management (SRM).

Risk Management

A key step in the planning phase was risk assessment and contingency planning. The risks that were identified could include, but not be limited to, financial risks such as supplier insolvency, natural disaster risks such as earthquakes, raw material shortages due to export restrictions, and socio-political risks such as worker strikes as union labour contracts expire. Even though some of these risks, like natural disasters or impromptu trade restrictions by foreign governments, are not preventable, some, such as financial issues, can be predicted, and others can be detected as soon as a related event occurs. For example, if a supplier is repeatedly short on orders or demanding early payment, there are likely financial issues; if a strike threat is issued at a port, it could materialize and seriously delay the organization's shipments; and if a mine collapses, it will prevent mining of a key raw material at that location for some time. That's why a key part of the strategic sourcing lifecycle is continually monitoring news and internal data sources for risk indicators and evaluating such indicators as soon as they are detected to see if mitigating actions need to be taken

to prevent a supply disruption. Since Risk Management is a text on its own, we're not going to dive deep into the subject here but simply note that once a risk has materialized that is likely to cause a disruption, a contingency plan will need to be put into action.

Putting a contingency plan into action, which will require good change management, will generally involve at least the following steps:

- notifying the right people,
- forming the implementation team,
- shifting supply as appropriate,
- implementing new monitors, controls, and measures,
- monitoring for end conditions, and
- switching back to the original supply plan when the risk has subsided.

Formal Performance Review

Depending on the contract length, one or more formal, sit-down, 360-degree performance reviews, where both parties give one another an open and honest evaluation of their performance over the course of the contract with the goal of helping each other improve, will be required. If the contract is short-term, then only one review near the end of the contract will generally be required or conducted and used as input for the next sourcing event. If the contract is longer-term, or with a new supplier for a new product, then multiple formal reviews may need to be scheduled. For example, a three year contract will generally have annual performance reviews and a contract with a new supplier and/or for a new product may have an initial review after the first quarter and then, depending on the results, have a follow up next quarter or fall into an annual review cycle if the performance is above average.

A formal review will look at all relevant hard and soft metrics, compare the supplier to average performance across the supply base, review interaction logs, review any incidents (and any subsequent disputes or corrective actions) and how they were handled, and will identify those areas where supplier improvement will be of the greatest benefit to the organization.

At a minimum, the metrics should cover:

- performance against all contractual commitments,
- incident response and resolution times,
- sustainability, and
- improvement, development, and innovation.

These reviews are critical not only because more details on quality, defect rates, and the value of the relationship helps the buyer make better decisions during the next sourcing cycle, but because it helps both the supplier and buyer improve. The supplier can take the feedback and improve their processes, products, and service offerings to be of more value to the buyer and the buyer can learn what they can do to make their suppliers, and as a result, their organizations more successful. For example, if the supplier's trucks typically have to wait six to eight hours before unloading begins, the supplier has to pay drivers for

sitting in a lot, pushing up costs. If the buyer is always getting orders in at the last possible minute, forcing suppliers to regularly run production lines on overtime schedules, that is also increasing costs and decreasing quality as the line workers are overworked. Formal joint reviews are a primary mechanism for improvement and better results.

Expiry / Renewal Management

Expiry and renewal management is a critical part of every contract, regardless of whether the contract expires or auto-renews. If the contract expires and it is for a critical product or service that could put the organization's primary revenue stream in jeopardy if supply gets interrupted, it is critical that Sourcing either extend the contract or get a new contract in place before the current contract expires. If the contract is evergreen and automatically renews without written cancellation, this could be even more damaging. For example, let's say the tide has turned and now supply greatly exceeds demand and prices have dropped from a high to a low, then auto-renewing could be very costly. That's why a strategy for expiry or renewal needs to be part of planning and why the strategy has to be executed at the proper time.

The Analysis Phase

When the contract is over, it's time for the analysis phase.

Formal Review

The first part of the analysis phase is the formal review, which is traditionally known as a post mortem analysis in project analysis. (However, since the goal of sourcing is to identify suppliers with long term value, this terminology, often promoted by project managers and consultants, is inappropriate.) Did things go according to plan? How much of the expected savings materialized? What went wrong? What could have been done better? What lessons were learned and what should be changed next time? Unless a formal review is conducted that identifies the root causes of any performance issues and specifies potential corrective actions, the organization will be doomed to repeat any mistakes it made and execution will not improve in the future.

Spend Analysis & Opportunity Assessment

After the formal review is completed, the next step is for the organization to do a spend analysis on the category that was sourced and look at how much was spent per unit of product or service acquired, how much the organization would likely pay for those same products or services if it went back to market, and the magnitude of the opportunity that could be realized in a successful strategic sourcing event. If the result of the analysis is that going back to market would not result in any additional savings or even result in higher costs, then the best strategy for the organization to follow would likely be to do a re-negotiation with the incumbent and try to keep costs flat or almost flat.

Also, the organization will assess the potential savings opportunities on categories not currently under contract to see if tackling one of these categories instead of resourcing the existing category could result in a greater benefit to the organization and all categories evaluated will be prioritized in terms of opportunity size.

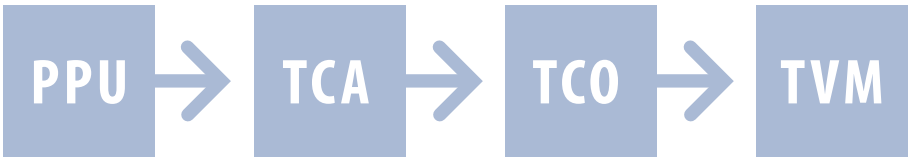
Opportunity Selection

Once the spend analysis and opportunity assessment has been completed, the buyer will select one or more categories for sourcing and begin the sourcing cycle anew. The categories will generally be selected based upon expected value measured against expected effort to maximize use of organizational resources, but sometimes strategic categories will take precedence. Now it's time to focus on opportunity identification and category selection for strategic sourcing as success depends on selecting the right project at the right time.

Appendix B

The Four Stages of Strategic Sourcing Evolution

In chapter 1 it was noted that each and every organization goes through almost the same sourcing journey on its way to becoming a best-in-class value-focused Sourcing organization capable of managing, and extracting considerable value from complex global tenders. This journey, which consists of four stages and centers around the cost model used by the Sourcing organization, is captured in the following diagram.



This appendix provides more detail on each of these stages which were briefly defined in the main text.

Stage 1: Price Per Unit (PPU)

Even as late as the 1970s, Sourcing, which was thought of as a purely back-office function that could acquire the goods needed by Engineering, Maintenance, etc. by ordering from a catalogue. Furthermore, the function was typically staffed by individuals with little or no training in purchasing or operations management, was focused just on getting the best price – the lowest cost-per-unit. This was especially true when Logistics was a completely separate organization, there was no supply chain umbrella, and freight costs were someone else's problem. This sometimes worked well when everything was ordered locally, or regionally, and the differences in freight costs were inconsequential, but with the rise of global sourcing, and the outsourcing to China and the rest of Asia in particular, the cheapest supplier was typically the supplier that was furthest away and, thus, incurred the highest freight costs. As a result, the organization would often save 10% to 20% on the unit price just to pay 30% to 60% more on the freight and, at the end of the day, possibly pay more overall.

Moreover, even when freight costs are about the same for all products under consideration, PPU does not produce a complete picture of the true cost of each acquired unit of a product. Sometimes prices fluctuate wildly due to market conditions, thereby skewing value over time. Sometimes a lower PPU might result in a higher overall cost if the product quality is lower and results in costly returns or lost customers. And, as indicated above, freight and inventory costs, especially if outsourcing requires larger inventories on hand, can often be as high as the cost of the products themselves. Many estimates put the annual cost of inventory at 25% of the total product cost.

Stage 2: Total Cost of Acquisition (TCA)

When Sourcing organizations started to realize that selecting the lowest price per unit bid sometimes cost the organization more in transportation and related costs than the savings realized on the unit price alone, these organizations graduated to Total Landed Cost (TLC) that included freight, and then quickly replaced this calculation with Total Cost of Acquisition (TCA) that also included import and export duties, temporary storage costs at docks or cross-docking facilities, surcharges, and any other costs associated with getting the product into the warehouse.

On the indirect side, these same companies started to think about expenses that went with those services, such as how much would the consultancy or service provider be charging in expenses if they had to fly people in, put those people up in a hotel, feed them, etc.

Organizations that moved to TCA tended to fare much better than organizations that still focused on PPU, especially when they also factored in non-transportation related indirect costs such as switching costs to bring in a new supplier which used a different pallet size or to cancel an existing contract, product utilization costs when a certain product is known to have a higher waste factor or defect rate, and transaction costs when a new supplier network or payment platform needs to be used to process orders or invoices, on the direct side and direct costs such as new equipment purchases when the vendor requires the company to provide the service professional with equipment on the indirect side.

For example, consider the following table which captures the widget acquisition costs for America-based Steampunk Contraptions which demonstrates how the best buy quickly shifts from Red Dragon Widgets to Widgets Brazilia when the Total Cost of Acquisition, which includes freight costs per unit (FPU), amortized temporary port storage (SPU), and tariffs are taken into account.

Widgets				**TCA**	
	PPU	FPU	SPU	Tariffs	**Total**
Widgets America	1.00	0.10	0.00	0.00	1.10
Widgets Brazilia	0.70	0.20	0.00	0.05	**0.95**
Red Dragon Widgets	**0.50**	0.60	0.05	0.15	1.30
Widgets Downunder	0.80	0.30	0.00	0.10	1.20

In fact, some organizations realized unprecedented levels of cost savings, especially during good market conditions when supply exceeded demand and new suppliers were hungry for business at any cost. However, a focus on TCA can still leave money on the table and, more importantly, increase risk. For example, a TCA focus does not take into account the costs associated with contracting a supplier, maintaining or adjusting operational processes, or bundling or unbundling package purchases; nor does it take into account incurred costs associated with a specific product, specifically if it is of lower quality, or the costs of recovering from a supply disruption if the supplier is overseas and the only option is to utilize costly air-freight when the production line comes back online.

Stage 3: Total Cost of Ownership (TCO)

It is for the above reasons that many leading organizations now source using a total cost of ownership (TCO) approach that attempts to quantify the overall total cost of each unit of raw material or product acquired in a manner that allows the sourcing analyst to compare bids in an apples to apples fashion, because, even though apples can be compared to

oranges[1], the methodology leaves much to be desired. A Sourcing organization that uses Total Cost of Ownership will look at the costs throughout the organization's sourcing, production, and sales lifecycle and take into account all direct sourcing costs (unit, freight, duties and tariffs, interim storage, etc.), indirect souring costs (product utilization, switching, transaction, etc.), and quantifiable market related costs (support, expected return, brand impact, etc.) and compute an adjusted total ownership cost for each unit of product or material acquired. Or, in the case of indirect services, will not only look at the cost per hour and the associated overhead, but the relative productivity. For example, while an expert may command fifty percent more than the market average for a certain service, if the expert can get the work done in half of the average time, that's still a twenty five percent saving.

This way, before the Sourcing organization makes a final decision, it understands not only the up front unit and freight costs but also the back-end utilization and maintenance costs on a direct purchase, or the overall total cost of the service being sought on an indirect purchase, so that the organization doesn't make a decision that results in the organization being penny-wise and pound-foolish.

For example, consider the following table which demonstrates how the best buy shifts from Widgets Brazilia to Widgets America when the Total Cost of Ownership, which includes the amortized return cost (ARC) for defective units, and the quantifiable market impact (QMI) of the buy, as certain buys (such as buying America) give Marketing an advantage and other buys (such as buying Asian) give Marketing a disadvantage in the target market.

Widgets						**TCO**	
				TCA			
	PPU	FPU	SPU	Tariffs	ARC	QMI	**Total**
Widgets America	1.00	0.10	0.00	0.00	0.01	- 0.10	**1.01**
Widgets Brazilia	0.70	0.20	0.00	0.05	0.03	0.05	1.03
Red Dragon Widgets	0.50	0.60	0.05	0.15	0.10	0.05	1.45
Widgets Downunder	0.80	0.30	0.00	0.10	0.05	0.00	1.25

While TCO is significantly better than TCA, which is better still than PPU, it is still a very cost centric approach. If the goal of TCO is misunderstood, a buyer can be distracted from strategic sourcing's ultimate goal, which is optimizing the supply chain from a total value perspective. A sourcing professional wants to insure that each sourcing project yields long term gains, and not just short term cost savings, that align with organizational objectives and focus. A narrow focus on TCO can often overlook opportunities for value-add, joint innovation, and risk mitigation – something that is becoming more and more important by the day when an average organization's chance of not experiencing a significant supply disruption in the next twelve months is less than 20% and dropping fast.

[1] *http://www.improbable.com/airchives/paperair/volume1/v1i3/air-1-3-apples.html*

A 2012 Study by Zurich across 500 companies found that 88% of organizations had experienced a significant disruption in the past 12 months[2]. A similarly sized 2014 BCI report found that 81% of respondents reported a disruption in 2013[3]. A small 2014 Supply Chain Insights study on only 46 companies found that at least 80% reported a significant disruption, and most reported three[4]. All of these statistics are increases over previous studies by those organizations. Moreover, a 2011 publication by Think Executive noted that it is predicted that natural and man-made disasters will increase five-fold over the next fifty years, increasing the number of disruptions that will affect an organization's supply chain.

Stage 4: Total Value Management (TVM)

Best-in-class organizations make sourcing decisions using a Total Value Management (TVM) philosophy. In total value management, an organization quantifies the overall cost of each unit available to acquisition, as it did when it was sourcing using a TCO focus, and then measures it against the overall value of the spend category as it relates to the organization's sourcing strategy and supply management goals. TVM allows a Sourcing Professional to determine the highest value-to-cost ratio of a spend category through the use of integrated decision optimization that aligns spending plans with the organization's overall sourcing goals.

How does Total Value Management accomplish this? By considering the costs associated with managing performance and maintaining good supplier relations, by looking at opportunities for long-term supply chain cost reduction through strategic partnerships and joint innovation, by evaluating the likely cost savings associated with a risk reduction, and by estimating, and minimizing, the losses that will result when everything doesn't go according to plan and orders have to be expedited, new sources of supply have to be acquired on a temporary basis, and rebates are lost due to maverick spend.

The reality is that no sourcing project captures all of the identified/projected savings due to "leakage". The reasons for this are numerous and can include situations where the correct product is ordered late due to an oversight, or customer demand surges ahead of expectations, resulting in the need to expedite freight at a higher cost. The reasons can also include situations where planned award allocations are not strictly ordered due to maverick spend or variable demand, which results in a capacity shortfall in a specific timeframe and additional penalty fees or lost rebates. In these situations, the identified savings of a TCO-based sourcing project did not result as a result of deviations from the sourcing plan during the implementation. Then there are supply disruptions due to material shortages, plant fires, and natural disasters that require the organization to acquire new, temporary, sources of supply on the spot market. Each of these situations could result in considerable losses if the supply chain cannot adapt quickly enough.

If the organization instead takes a Total Value Management approach and identifies the likely variability in customer demand and selected at least one regional supplier capable

[2] *http://www.zurich.co.uk/internet/home/sitecollectiondocuments/business/largebusinesses/zurich_supplychainreport_july2012.pdf*

[3] *http://www.thebci.org/index.php/obtain-the-supply-chain-resilience-report*

[4] *http://supplychaininsights.com/can-you-afford-the-risk/*

of meeting demand surges quickly without the need for excessive amounts of expedited freight; identified potential capacity shortfalls and instead of negotiating for a large rebate or discount with a potential penalty instead negotiated slightly higher tiered pricing; or split allocations geographically to insure that no single supply disruption, short of a border closing in the target market, would result in an immediate lack of supply and the need to purchase on the spot market, then the organization has a much more resilient allocation strategy which is much more likely to realize the majority of identified savings, instead of the 70% that is typically captured in an average organization. (As reported in AMRs classic series on Reaching Sourcing Excellence[6].)

An organization with a TVM focus is not only sure to capture every cost, and every constraint, in the category model but is also sure to identify every assumption or risk that is identifiable during the sourcing cycle that could disrupt supply or prevent identified savings from being captured. It then identifies a set of constraints and goals that, if satisfied and met, minimizes the chances that identified savings can't be captured and builds a model that optimizes organizational value. In other words, it builds a model that minimizes costs in a realistic, realizable fashion. And it looks to the future.

If a supplier is committed to sustainability and is in the process of switching to renewable energy (and even building its own power plant to do so), upgrading its production processes to minimize waste water, or preparing to implement a new production line that will make production more cost effective, this is future value that can be captured by locking in a long-term contract with future price decreases, with a portion of those price decreases amortized against the first year costs.

An organization that minimizes risks and takes advantage of suppliers that are proactively taking actions to lower costs in the long term not only realizes that the most successful Sourcing organizations are those that not only sacrifice a few pennies of savings today to prevent spending pounds tomorrow, but also spend a few extra pennies now as insurance to mitigate against costly situations arising later.

For example, consider the following table which demonstrates how the best buy shifts from Widgets America to Widget Down Under when the Total Value is considered, which includes the amortized savings from projects underway at certain suppliers to shift to renewable energy sources (FSS, future sustainability savings) and new production lines (FIS, future innovation savings) with less waste and less overhead, which the organization can take advantage of if it locks in a deal for at least three years.

See table on following page.

[6] *https://www.gartner.com/doc/1341816/reaching-sourcing-excellence-cents-dollar*

Widgets								TVM	
						TCO			
					TCA				
		TLC							
	PPU	FPU	SPU	Tariffs	ARC	QMI	FSS	FIS	**Total**
Widgets America	1.00	0.10	0.00	0.00	0.01	- 0.10	0.00	0.00	1.01
Widgets Brazilia	0.70	0.20	0.00	0.05	0.03	0.05	0.00	0.00	1.03
Red Dragon Widgets	0.50	0.60	0.05	0.15	0.10	0.05	- 0.05	0.00	1.40
Widgets Downunder	0.80	0.30	0.00	0.10	0.05	0.00	- 0.15	- 0.15	**0.95**

Appendix C

The Evolution of Strategic Sourcing Platforms

As was noted in the introduction, strategic sourcing is a process that is designed, and employed, to maximize the value of each purchase made by the company – value that can come in the form of savings, value-add, risk-minimization, or better supplier relationships. More importantly, it is an evolving process that matures and adapts as the needs of the organization change.

This is a process that is at its best when it is supported by an appropriate sourcing platform that supports each step of the process. In order to aid in an understanding of what this platform might be, this appendix is going to discuss the evolution of sourcing platforms from their humble beginnings as simple e-Negotiation platforms through to modern enhanced sourcing platforms that cover the end-to-end strategic sourcing lifecycle.

Sourcing platforms have more-or-less evolved through four levels:

1) **Traditional e-Negotiation and engagement**
   supported by simple RFX-based tender management and, possibly, simple auctions

2) **Traditional Strategic Sourcing**
   supported by advanced RFX-based tender management, extensive e-Auction capability, analysis, and, in best-of-class platforms, true decision optimization

3) **CLM-enhanced Sourcing**
   which enhances the sourcing platform with basic contract management capabilities

4) **SRM-enhanced Sourcing**
   which enhances the strategic sourcing platform with basic supplier information and relationship management capabilities

The sections that follow describe the typical definition and features of a platform at each level. This should not be taken as an absolute description, but a representative example of a typical platform. Some platforms will have more capability, some will have less, and some will offer variations on the theme depending on the target vertical, the expected usage, and the sourcing philosophy of the vendor providing the platform. In addition, the platforms described in levels 3 and 4 do not have to be a single vendor solution. It is possible to take a true best of breed strategic sourcing solution at level 2 and make a level 4 solution by integrating best of breed capabilities in stand-alone CLM and SRM platforms. The goal of this chapter is to help an interested user understand what types of platforms are out there and how mature each platform is. It is not to provide a detailed guide for platform evaluation or selection.

Level 1: the basic e-Negotiation Platform

The first level of sourcing evolution is e-Negotiation. This is the engagement process that typically starts with an invitation to tender; continues with a, possibly multi-stage, RFX process; may include a, possibly multi-round, e-Auction; and concludes with a weighting or ranking that ends in a potential award. There are four primary requirements for a platform to support e-Negotiation. This section discusses each of these four core requirements and some of the key features that define them.

<table>
<tr><td rowspan="3">e-Negotiation</td><td rowspan="3">Supplier Portal</td><td>RFX & Surveys</td></tr>
<tr><td>e-Auction</td></tr>
<tr><td>Reporting</td></tr>
</table>

Graphically, an e-Negotiation platform looks something like this.

RFx Surveys and Bid Collection

The core requirement for e-negotiation is the ability to collect data electronically. Bids, responses to key questions, and additional information that can be used by the buyer to evaluate the capability of the supplier all need to be collected electronically over the internet through a powerful survey tool. This tool has the following core requirements:

Flexible Survey Construction & Data Collection

The buyer needs the ability to be able to construct fixed and open ended survey questions and bid matrices that meet the organization's needs. Yes/No, multiple choice, radio button, and component pricing models need to be supported.

Weightings

The buyer needs the ability to define different weightings for different suppliers and different supplier responses in order to accurately evaluate a supplier's RFP/RFQ.

e-Auction

While there are about a dozen types of e-Auctions, including the eight that were defined in chapter 3, a simple e-Auction platform only needs to support two basic types of lot-based reverse auctions.

Sometimes the buyer wants to run an auction on individual items, and sometimes the buyer wants to run an auction on lots of related items. The e-Auction platform will support lot-based auctions where lots can consist only of a single item. In addition, the platform will support the Dutch and Yankee variants as these are the most common types run.

In addition, the platform will allow the definition of some basic parameters on the auction including a maximum (ceiling) price, possibly a minimum (floor) price, and an automatic time extension if a bid comes in within the last few minutes of the auction. The auction tool should also support the weighting of bids by supplier, lot, and item based upon one or more factors relevant to the organization.

Reporting

A basic sourcing suite will also include a reasonably sized collection of basic reports in a report library that allows the buyers to get the data they need in easily digestible chunks. The reporting library will contain a set of standard reports which should include, at a minimum:

Supplier Participation

Which suppliers responded to an RFX or e-Auction, how complete their responses were, and which suppliers still need to respond.

Bid Comparison

Side-by-side comparison of bids against items and lots across selected suppliers.

Award Report

Taking any and all weightings into account, which supplier should get which item or lot and in which quantity for the award using the lowest weighted cost. Note that, since lots are independent, this does not guarantee an optimal solution as cross-lot discounts, freight savings, etc. cannot be taken into account.

Supplier Portal

The e-Negotiation platform provides a supplier with a single entry point where its authorized personnel can access the RFX and surveys directed to them, participate in auctions, get information on the buyer's sourcing process, be notified of awards, and ask questions of the buyer.

Outstanding Task List

A supplier representative should immediately be able to see all pending tasks that need to be completed with respect to RFI surveys, RFQs and e-Auctions on commodities, RFPs on complex projects, and any inquiries that need to be responded to.

Recent Tender Results

Win, lose, or draw, because the buyer is still undecided, the supplier should know the results of every tender or e-Auction they participated in, and be able to access any feedback provided by the buyer, which might allow them to perform better next time.

Buying Policies, Event Information, and FAQ

The supplier should be able to easily access the buyer's organizational buying policies, the rules and structure of each event they participate in, and the frequently asked questions list so they can self-serve answers to most of their questions and information needs.

Feedback and Questions

No matter how complete the organizational buying policy, how detailed the event structure, and how extensive the FAQ, the buyer will never be able to pre-conceive every question that will be asked by a supplier. As a result, the supplier will need a way to ask

questions regarding the platform, the event, the award, or feedback provided by the buyer and access the buyer responses.

Level 2: the Strategic Sourcing Platform

The second level of sourcing platform evolution is traditional strategic sourcing. This process starts with analysis and opportunity assessment, continues with supplier discovery and invitation to tender, uses e-RFX and / or e-Auction to collect quotes, subjects the quotes to in-depth analysis, modeling, and optimization, and ends with an award specification. In other words, it's e-Negotiation and engagement preceded with spend analysis, modeling, and opportunity assessment and followed by in-depth analysis, modeling, and optimization against the category model before an award is made. This section discusses these additional technologies and the key capabilities they must possess to support the sourcing process.

<table>
<tr><td rowspan="3">Traditional Sourcing</td><td colspan="2">Spend Analysis</td></tr>
<tr><td colspan="2">Should-Cost Modeling</td></tr>
<tr><td colspan="2">Supplier Discovery</td></tr>
<tr><td rowspan="4">e-Negotiation</td><td rowspan="4">Supplier Portal</td><td>RFX & Surveys</td></tr>
<tr><td>e-Auction</td></tr>
<tr><td>Reporting</td></tr>
<tr><td>Decision Optimization</td></tr>
</table>

Spend Analysis

Technically, spend analysis is the process of aggregating, classifying, and leveraging spend data for the purpose of gaining visibility into cost reduction, performance improvement, and contract compliance opportunities. It is part of an overall spend management and visibility process that includes the analysis, award, and monitoring of corporate spend. Additionally, it is the first and last step of the strategic sourcing process that drives value.

More simply, it is the process that a sourcing analyst uses to answer:

- **Who** is buying
- **What**
- From **whom**
- **When**
- (optionally) **Where** and
- at **What** price

Spend analysis is critical to sourcing because there are no savings in categories that are low-dollar or being phased out, nor in categories where spend is below the market average.

But good spend analysis requires more than a general ledger or a payment file with a total payment column by supplier. It requires detailed information that includes what was bought from the supplier, when, where it shipped from, where it went to, who authorized the purchase, at what price, and, if available, how it compares to actual spend and/or market rates. Furthermore, in order to efficiently and accurately process this information in a manner that will allow the savings or value generation opportunities to be identified, the following capabilities are required.

Exceptional (E)TL Support

Analysis relies on data. Lots of data. Lots of data that will come from different systems – the procurement system (purchase orders), the ERP system (goods receipts), the accounts payable system (invoices and payments), the contract management system (rate tables), the sourcing system (bids), etc. As a result, a good spend analysis system has to have powerful, easy to use, extract-transform-load support to not only get all of the required data in, but merge it in a seamless fashion.

Priority-Based Mapping Rules

Some vendors still make mapping out to be hard, when it is in fact a decades-old tried and true formula that goes like this:

1. Map the GL Codes.
2. Map the Vendors.
3. Map the GL Codes + Vendors.
4. Map the exceptions.
5. Map the exceptions to the exceptions.

and then apply the rules to the data set in reverse order. This process is in fact so simple that it can be done by hand to 90%+ accuracy even on a complete Fortune 100 spend dataset by a skilled analyst in two days flat with no automated mapping, or faulty AI, required. But if the solution doesn't have multi-level priority based mapping rules where an analyst can map from the general to the specific, and then the system applies the rules from the specific to the general when the data is loaded, not only does mapping take seemingly forever, as an analyst then has to create a rule for every unique combination of data elements in a transaction that defines a category mapping, but rule collisions become almost impossible to identify as the category a transaction gets mapped to literally depends on rule application order. As a side note, this is why many automated mapping solutions are so problematic.

Multi-Cube Support

One cube, which can be thought of as a view into a data subset of interest, is never enough. An analyst needs multiple cubes – each focused on a strategic subset of the supply base, a category, raw material utilization, service, and other factors that make analytic sense – especially since some analysis will require data enrichment with market

data, sustainability data, utilization factors, and other elements that allow an analyst to get deep insight that will lead to additional savings identification, risk minimization, or value generation.

Derived Dimensions

Day-over-day comparisons make little or no sense for the vast majority of categories. What's typically important is week-over-week, month-over-month, quarter-over-quarter, or year-over-year comparisons and trends. This requires the ability to define ranged date dimensions. In addition, sometimes an analyst is trying to estimate costs for a new product or category and needs to evaluate costs using a should cost model based on labour rates, energy rates, raw material costs, and overhead. This requires the ability to define derived dimensions.

Fixable Filters During Drill Down

The buyer should be able to fix filters at each level of a drill-down, even if the dimension order is changed, and focus in on the subset of data that appears to be the most relevant. The ability to identify variances – costs lower or higher than average, demand fluctuations, or other outliers – is what often leads to the identification of savings or value generation opportunities, and this can only be done if the user can drill down until the right subset of data is identified.

Should-Cost Modeling

Just because a buyer has a set of quotes from three pre-vetted suppliers and they all come in lower than the current price the organization is paying, it does not mean that the buyer has a good set of quotes. A good set of quotes is cost plus a fair mark-up, not what the supply base can get away with due to collusion and lack of market intelligence. Sometimes the only way to know if a quote is good is to build a should cost model using raw material costs, energy costs, labour costs, other overhead costs, and what the organization considers to be a fair margin. This requires a decent should-cost modeling tool to back it up. There are two key requirements for this tool.

Component Cost Breakdown

The ability to break down each cost into component cost dimensions, which themselves can be broken down as needed. For example, at the top level a product under consideration might have the raw material cost, overhead cost, and margin costs, which breakdown into each individual raw material and overhead cost, and if a raw material is a component, that component cost might itself need to be broken down if its cost is not well understood.

Formula-Based Derivations and Range Calculations

Sometimes the costs will need to be defined as a percentage of a market cost, which could be defined for a metric ton of the material, sometimes as a markup on the raw material cost, such as when energy cost is computed based on the cost of oil or coal, and sometimes as a discount on a baseline cost based upon expected volume discounts.

Supplier Discovery

Sometimes the best opportunities come by way of supplier development or joint innovation programs with the existing supply base, and sometimes the best opportunities come by way of a new supplier that knows how to shake it up. A supplier discovery platform consists of at least the following two core components:

Extensive Database or Network

The "database" of suppliers needs to be extensive and reasonably detailed. At a minimum, who they are, where they are, and what products and services they offer.

Powerful Search Capability

The buyer needs to be able to find suppliers for whatever product or service is needed, either anywhere in the world or in a specific geographic area, that satisfy any risk / finance / or sustainability requirements mandated by the organization, and so on. Search needs to be easy to use and powerful.

Strategic Sourcing Decision Optimization

e-Auctions are good. Focused negotiations are often better. But to truly understand the lowest cost solution for a global category that requires a global supply chain that meets all of the organization's needs, nothing beats strategic sourcing decision optimization (SSDO). True SSDO can analyze all of the costs against all of the organization's hard and soft constraints and all of the supplier bids and come up with the absolute lowest cost award. But not every tool on the market being touted as a decision optimization tool is a true decision optimization tool. In order for a sourcing platform to offer true strategic sourcing decision optimization, it must be built on the following four pillars.

Solid Mathematical Foundations

Genetic or evolutionary computation, tableaux, or heuristics do not make a true decision optimization tool. A true decision optimization tool is built on (mixed integer) linear programming or another mathematical algorithm that, given enough time, is guaranteed to find the optimal solution – not a best-guess approximation which could be millions of dollars off, which can easily happen on a nine, and sometimes even eight, figure category.

True Cost Modeling

Despite a plethora of systems that have purported to be examples to the contrary over the years, simply capturing a single bid on one unit of an item is not sufficient to qualify a system as a strategic sourcing decision optimization system. In reality, the cost of goods sold calculation is much more complex. The cost of a product may include the raw price per unit (PPU) cost, the handling fee, an export tariff, an import tariff, value added tax, and a delivery cost, etc. A single bid does not accurately capture this as the PPU and handling fee may vary at different volume levels, bundling or unbundling another product or service may change the tariffs, as printers with installed cartridges have a higher tariff rate, and delivery cost varies based upon the logistics provider and the volume, and this determines LTL vs. FTL. Plus, there may be fixed switching costs to a new supplier that have to be amortized over individual units. If the solution does not allow for accurate cost modeling, it is useless.

Sophisticated Constraint Analysis

The reason that a buyer cannot always use an e-Auction solution and let the market decide the best price is that the lowest weighted cost is not always the optimal solution. In reality, a buyer will always need to adhere to a large number of regulatory, business, and strategic constraints of a quantitative and qualitative nature in order to arrive at a true optimal solution that minimizes risks and does not have unintended consequences. At a minimum, such a system must support the following four categories of constraints:

Capacity Constraints

These allow a buyer to specify real world limits on the amount of product or service an individual supplier can supply and the amount a physical warehouse location can receive and to further restrict award based on business rules.

Basic Allocation

These allow the buyer to select a set of one or more suppliers and specify that a minimum or maximum volume or award percentage, possibly in dollar terms, to be awarded to the supplier or the supplier set. These are used to capture pre-existing agreements, which could, for example, guarantee a supplier at least 30% of the business, or to limit new, potentially risky, suppliers to a subset of the business until they prove their reliability.

Risk Mitigation Allocation

These allow a buyer to specify that multiple suppliers must receive an award, and each supplier that does must receive either a minimum, or maximum, or a pre-defined award split, such as the classic 20% / 30% / 50% split. These complex allocations designed to adhere to strategic splits or minimize risks across suppliers or geographies are considerably more involved mathematically, which is why not all vendors will support them in their "optimization" platform.

Qualitative

Simply put, these allow for the imposition of an absolute or average minimum or maximum qualitative score on each product or product bundle sourced. They allow a buyer to define such things as durability requirements, where a component must have a minimum rating of 8, marketing and customer satisfaction goals, where a defect rate must be 5% or less, or a third party CSR score requirement.

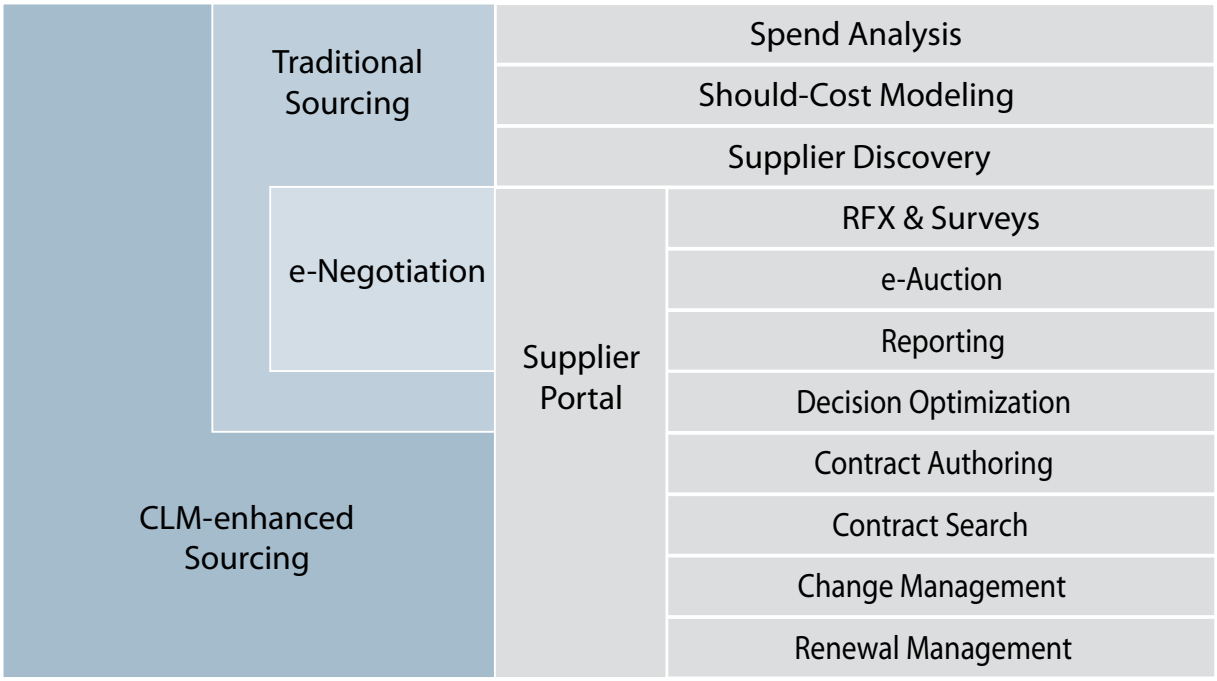
What If? Capability

The true power of a strategic sourcing decision optimization platform lies in its ability to generate, analyze, and compare multiple "what-if" scenarios side-by-side which are defined using different bids, modifiers, constraints, and goals.

Level 3: the CLM-enhanced Platform

The third level of sourcing evolution is sourcing enhanced with contract management. The standard sourcing process ends with the identification of an award, at which point formal negotiation and contract drafting takes over. This process, at some companies, can take longer than the sourcing process and may require a sophisticated contract management platform to complete. Then, the contract needs to be managed throughout its lifecycle, which, depending on the products and services required, could generate a host of technological requirements for the contract management solution. As noted in the introduction, this functionality can be embedded in the sourcing platform or it can be a stand-alone best-of-breed solution integrated with the sourcing platform, as the only data that needs to be pulled into the solution is the final award scenario and the only information that needs to be pushed out is the actual purchase and performance data.

There are four critical requirements from the view of the strategic sourcing lifecycle: contract authoring, search, amendment control and change management, and renewal management. These are propped up by a fifth key requirement, alerts, that enables each module to support the necessary capabilities.



Contract Authoring Support

No matter what an organization gives them, most Legal departments will want to use Microsoft Word to author the contract because that's what the Legal staff is comfortable with. Thus, if the contract management platform simply integrates with Microsoft Word, that will be sufficient for contract authoring support. However, a good contract management tool will also store all historical versions, allow for easy difference comparisons between them, and enable the creation of new versions by merging sections of previous versions.

Meta-Data Support and Search

In addition, a contract management solution should do more than just allow for storage of a contract in a document repository, it should also allow for the creation of key contract meta-data that makes it easy to search contracts and associated documents for key terms and conditions, products, services, rates, insurance requirements, and compliance obligations. It should allow a user to quickly discover, for any product or service, if there is a contract that such product or service is covered under, and for any supplier, the active contracts currently associated with that supplier.

Amendment Control / Change Management

No matter how much work goes into planning and negotiation, no contract is static and changes will always be required as demands change, raw materials become unavailable, energy prices increase and strikes happen, among other unexpected, and unfortunate, events. Contracts will need to be amended and that is why it is critical that such a solution support good amendment control. In addition, amendments must not only be associated with contracts, but also record who was responsible, when the amendment was made, when it takes effect, and any changes that were made, and attempted, by the authorized users.

Alerts

The system must support user-configurable alerts that must, at a minimum, be capable of alerting a user when a contract is about to expire, a defined milestone is coming due, a document or deliverable is missing, and an approval is required. If the user does not take care of a critical action before it becomes due, an evergreen contract could renew at an unfavorable rate, the organization could be exposed to additional liability, because the supplier did not renew the liability insurance and the buyer didn't catch it in time, or the buyer could be faced with a large expedited shipping fee because a critical order wasn't verified in time.

Expiry and Renewal Management

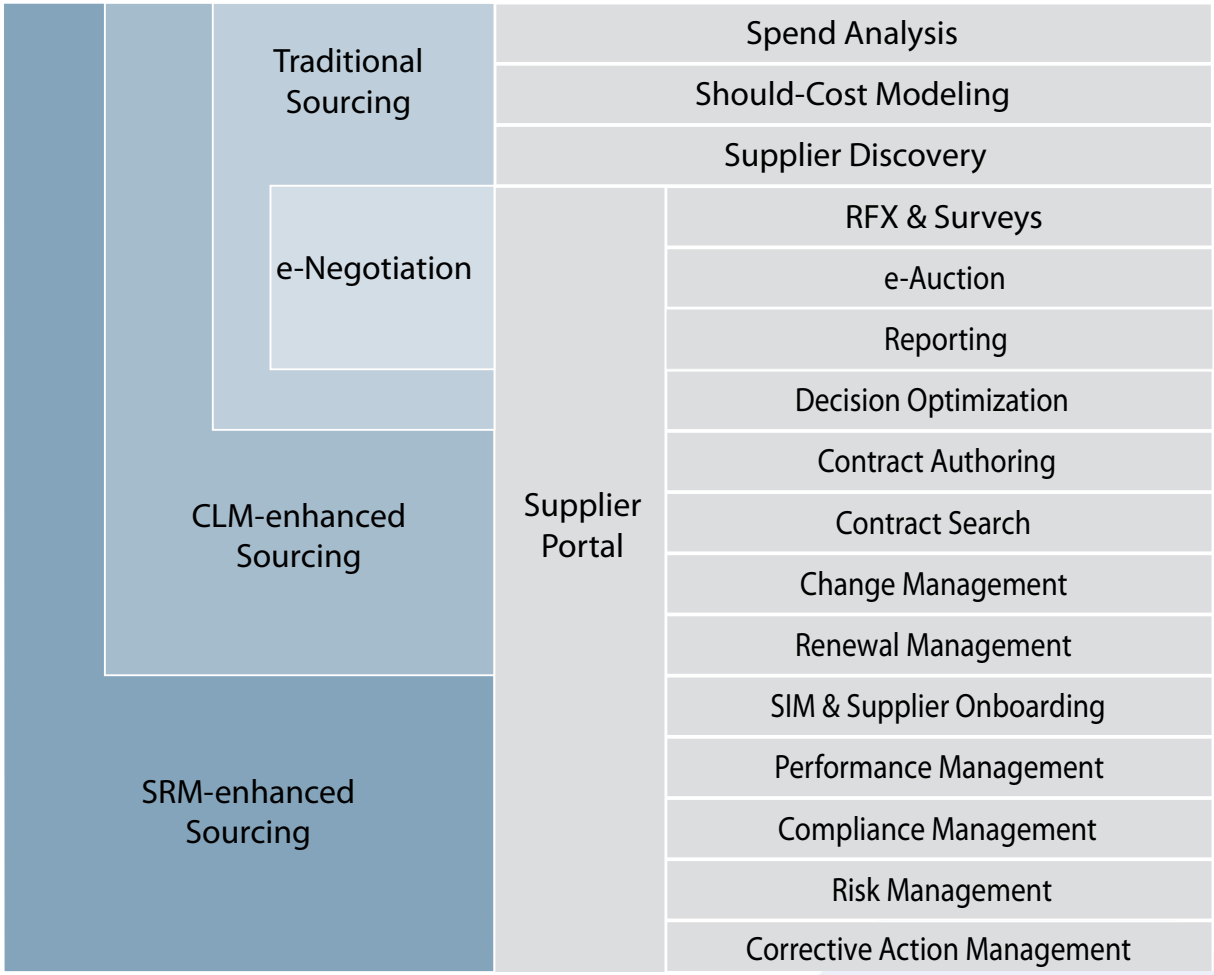
Evergreen renewals are a leading cause of overspending in many organizations. A core requirement of a contract management system is to not only track contracts, but also creation dates, effective dates, expiry dates, whether or not the contract auto-renews, when a renewal decision needs to be made by, and when notice of termination needs to be provided to prevent an auto-renewal. This information needs to be readily available at all times and easily searchable. In addition, alerts should automatically be created, using pre-configured timeframes, for all contracts capable of auto-renewing, that remind a user of an approaching evergreen renewal date if no action is take, and the user's supervisor if no action is taken within an appropriate amount of time.

Level 4: the SRM-enhanced Platform

The fourth level of sourcing evolution is sourcing enhanced with Supplier Relationship Management. Contract Lifecycle Management is a great start, but, at most, it only tells a buyer whether or not there is a contract, if any changes have been made, and if it is coming up for renewal. On its own, it's not enough to verify that a supplier is invoicing at agreed upon rates at agreed upon times for delivered products or services and whether or not the supplier is meeting their performance obligations. It does not address true corrective action management, does not track all compliance requirements, and does not provide a foundation for supplier development or future opportunity identification.

As noted in the introduction, this functionality can be embedded in the sourcing platform or can come from a stand-alone best-of-breed platform integrated with the sourcing platform, as the only data that needs to be pulled into the solution is the contract data and the only information that needs to be pushed out is the actual performance data against the contract.

There are five critical requirements from the view of the strategic sourcing lifecycle: SIM (Supplier Information Management) & Supplier On-Boarding, Performance Management, Compliance Management, Risk Management, and Corrective Action Management.



SIM & Supplier On-Boarding

The platform must support a full Supplier Information Management (SIM) solution, that may or may not be the supplier Master Data Management (MDM) solution for the organization that allows an organization to maintain, at a minimum, the following information for each supplier:

- corporate information
- available financial and risk information (from a 3rd party)
- location information and location type
- organizational structure
- product / service catalogs, MSRP, discount, & organizational prices
- ...as well as historical prices
- shipping and inventory options
- sustainability data and carbon footprint data
- any associated contracts

and that allows the supplier to manage and update that information, with verification and approvals where necessary, through a self-service portal that also manages on-boarding.

An advanced platform will allow suppliers to self-register their existence, their corporate information, their products and services, and other relevant information that the buyer would need for discovery even without an invitation. However, suppliers with invitations will automatically get logins to edit and update their information and communicate with the buyer whereas uninvited suppliers will need to be verified and then provided a login with only minimal access to provide, but not update, data until qualified by the buying organization. Everything that is done should be logged and complete audit trails maintained for compliance, performance, and risk management purposes.

(KPI Scorecard Driven) Performance Management

Strategic sourcing and category management is done with the goal of improving performance, either by increasing savings or generating more value. Since most of the savings or value depends upon the supplier, supplier performance management is critical, and so is a performance management platform that supports this. The platform should be Key Performance Indicator (KPI) scorecard driven.

The scorecards will generally contain a mix of hard values, such as on-time delivery percentage, contract rate compliance percentage, and return rate; and soft values, such as innovation ability, responsiveness, and relationship potential, which will generally be computed based upon internal survey responses. Depending on the nature of the relationship, the KPIs of interest will vary and the organization needs the ability to define the KPIs of interest, the data sources, the computations, and so on.

Compliance Management

At a minimum, the compliance management functionality must support regulatory compliance and insurance management. This will generally be accomplished by making sure suppliers upload copies of their regulatory approvals and insurance certificates, specify the effective dates, and that someone on the buyer's side verifies these documents.

Risk Management

There will be many disagreements as to what the minimum functionality required for risk management is, given that there are a number of vendors that just offer extensive risk management platforms, but the buyer can be sure that, at a minimum, the platform must allow:

- risks to be defined
- associated risk indicators to be defined
- continuity plans and mitigation plans to be tracked
- the last time the risk was assessed and the determination as to likelihood
- any indicators that were detected, when, their severity, and actions taken
- the methodology used to identify indicators

An advanced platform may also interface with an event monitoring tool that will monitor global news sources for events that might match one or more indicators of identified risks, as well as events that might impact one or more current suppliers.

Incident Tracking & Corrective Action Management

During the course of every relationship, incidents will arise. Most incidents will be minor, and if quickly addressed, will not increase in severity, but some incidents will be major and need to be immediately resolved. Regardless of the severity, all incidents need to be tracked, addressed, and, if necessary, monitored and corrected using an appropriate task or communication-driven corrective action management framework. Issues that are tracked are under control and generally don't spiral into major disruptions.

Appendix D
Complex Tenders

What is a complex tender?

In this book, we have been referring to the need to support modern value-focused complex tender sourcing processes that look at all costs, benefits, and risks across all viable vendors locally, regionally, and globally. But just what is a complex tender?

A great introduction was provided by Mr. Peter Smith in his paper that asks **"What Defines Complex Sourcing - And Why Does it Matter[7]".** In this paper, he defines three internal factors, three external factors, and three commercial models that, if present, define a tender as a complex tender.

In this paper Mr. Smith makes it clear that, contrary to popular opinion, a complex tender is not something that is defined by the size of the spend, the importance of what is being purchased, the urgency at which it is needed, or the inherent risk factors in the category. This is because some high dollar purchases such as rare earth metals, oils, or pharmaceutical products, are rather straight forward as there's only a few sources; the prices are defined by markets; they have to come from the mine, patch, or lab; have to go to the organization's processing facility; and there aren't that many shipping options. Similarly, the importance of the spend, even if it is required for a critical product line, or the urgency of the spend, even if the product was needed yesterday, does not make a category complex. It certainly affects the priority of the event, which may have to be done now, and may affect the amount of overtime hours required, as a late delivery will shut down the production line, but unless a factor is present that makes the category complex, the category itself could still be inherently simple as the amount of time required is yet another factor that does not affect complexity. Finally, even though risk mitigation decisions could make a category complex – as they could dictate award splits, supply chain visibility, etc. – not all risks make a category complex since some risks can not be mitigated against if all sources of supply are in an area at risk of natural disasters. A high risk category is not necessarily complex and a complex category is not necessarily high risk.

What does make a category complex? According to Mr. Smith, the following nine internal, external, and commercial factors make a category complex.

Internal

- Breadth and diversity of stakeholders
- Breadth and diversity of the requirement
- The number of line items, variants, and/or lots

External

- Supplier population
- Alternative market solutions and/or offerings
- Capacity constraints

Commercial

- Supply chain options
- Pricing models
- Options for conditionality

[7] *http://spendmatters.com/research/what-defines-complex-sourcing-and-why-does-it-matter/*

And, under the proper set of assumptions, all of these situations do make a category, and thus a tender for the category, complex.

Let's take them one by one.

1) Breadth and diversity of stakeholders with conflicting requirements

While *"agreeing on specifications, capturing personal preferences (and mitigating the risks around any inappropriate preferences), as well as the logistics of gaining agreement, or involving stakeholders in the procurement process appropriately, all add up to potential headaches for the buyer",* this does not make a category complex as this is easily handled with any commodity RFX platform. However, as soon as conflicting requirements enter the picture, then the buyer has to do a cost/benefit analysis on each requirement and determine what the tradeoffs are, introduce preferential or penalty weightings into the tender, possibly redefine the product or service to remove the source of conflict, etc. A commodity RFX platform will not support this.

2) Breadth and diversity of the requirement

As Mr. Smith says, *"putting it simply, if goods or services need to be delivered or provided to many different locations, widely spread around many parts of the world, the sourcing will inevitably be more complex than a simple delivery to one point. This factor complicates the pure administration of the sourcing process and opens up more options in terms of supplier strategies, number of suppliers selected, and the like".* If there are a lot of locations a product or service can originate from, a lot of locations at which it is needed, and a lot of suppliers who can service the need at a local, regional, and/or global level, as outlined in our last chapter on Next Level Sourcing, the tender is complex, but also presents a huge value opportunity if that complexity can be tamed.

3) The number of line items, variants, and/or lots

This is not the same as the size of the spend or the volume of the purchase which, as we know, does not make a tender complex on its own. For example, a hundred different lines on an office supplies order is not complex, especially when any 50 lb. paper, ballpoint pen, paper towel roll, etc. will do. However, a hundred different lines on a food commodity order can get quite complex. Take tomato paste, for example. If the organization is a pizzeria restaurant chain, it needs a huge supply, and if sauce is short as a result of a recent tomato blight, it doesn't matter if it's regular, condensed, or frozen; in a jar, can, or plastic sac; or shipping in boxes, half pallets, or pallets. The demand must be met. Trying to manage various volumes in various packaging in various quantities, especially when each has a different waste factor during utilization, because it sticks to the packaging, is quite complex.

4) Supplier population … with variation

Simply having one hundred potential suppliers does not make an event complex if all of the suppliers offer essentially the exact same product or service to the same marketplace that more or less matches the organizational need one-to-one. However, if there is variation in the supply base, for example an event with different suppliers that are of different sizes and that offer their product or service offerings to a subset of the global market need that the organization is looking to fill, is very complex.

5) Alternative market solutions and/or offerings

As Mr. Smith explains, *"complexity can certainly arise where we have a wide range of alternatives in terms of our internal specifications and requirements. But another driver relates to where the market may have alternative ways of satisfying our needs".* For example, if the organization requires a custom logic board for its new automation platform, and different suppliers present different options with different form factors, component requirements, production methodologies, and additional value-add offerings, then the bid evaluation process can get quite complex.

6) Capacity Constraints

Capacity constraints also make the tender complex if no single supplier can supply all of the demand, and to make things worse, no single supplier can even supply all of the needs of a single plant or distribution location. Trying to balance award splits to minimize cost, maximize quality, and mitigate risk becomes very challenging indeed.

7) Supply chain options

Mr. Smith's example of the multi-tier print supply chain is a prime example of a complex commercial model that really requires a complex tender. Considering that a major printing requirement, such as a catalogue, will include the *"purchase of the paper, the actual printing, and a logistics-related set of tasks" and even "storage, handling and perhaps even distribution for the final product",* there are a lot of interrelated factors and the traditional exercises of either separating the paper buy from the printing buy from the logistics buy or restricting the bid to the few suppliers who can meet the entire need misses opportunities to allow smaller regional or local vendors with efficiencies from participating in the bid.

8) Pricing models

If all the event requires is a single bid per item or lot, then the tender is not very complex. However, if the tender allows a supplier to make multiple bids per lot based upon different volume levels, or different substitution options, then the pricing model, and the tender, becomes very complex very fast.

9) Options for conditionality

While multiple bids per lot based upon volume levels or substitution options create a complex model, the model can get even more complex when suppliers make conditional offerings such as an across the board price discount if a total volume or spend threshold is reached, a discount on one product for purchase of a related product, or a multi-year cost reduction for a multi-year volume guarantee within a certain region.

And of course, it goes unwritten that...

10) Any, Some, or All of the Above.

Moreover, the more complex factors there are, the more quickly the event becomes so complex that one cannot even manage it with a spreadsheet.

As an example, let's consider a global multi-tier print tender for only eleven (11) regions in North America, Europe, and Australasia, each served by a primary hub, with only seventy (70) distribution centers that handle local mailing/delivery, as defined in Table 1. In this tender, there are only fifteen (15) suppliers with only seventy-three (73) individual global locations, that provide reams of paper and print services, and where each also has a maximum paper supply capacity (which is either due to production limitations, existing contracts, or warehouse inventories) and a maximum printing capacity, based upon current throughput capacity and current commitments, as defined in Table 2. Each supplier offers discounts for hitting volume tiers on paper, print, and / or a combined paper and print buy, as defined in Table 3. While there are a number of global logistics carriers that just do transportation and distribution that could be used, we will keep it "simple" by assuming each supplier provides distribution for its paper or printed materials, possibly through one or more of these carriers, and has, or has access to, enough trucks; each (print) provider can also meet the entire inbound and outbound shipping requirement of each region it services; and, whether the truck is LTL or FTL, the truck will be priced at a flat FTL rate as none of the suppliers consolidate shipments and offer LTL rates. In addition, we will assume that the logistics quotes are relatively close and that an average quote could be used to do the paper and print assignments, as per Tables 4a and 4b, and then the selection of the logistics providers could be done after the fact using a separate logistics model.

Sounds simple, right? This should be doable in Excel as there are, at most, 121 lanes to consider from each supplier location to each hub (as there are only eleven regions to start from and, thus, eleven regions to end at), and quite a few of these can even be zeroed out if we assume that no paper or print provider would be selected to meet demand outside of the continent, and then there are only seventy lanes from the hubs to the distribution centers. Just find the lowest combined cost to each hub for print materials, and then find the lowest cost out. Right? Wrong!

First of all, unless the printer already has the paper, the paper has to get to the printer, so we have paper to printer, printer to hub, and then hub to DC, and there are over 150 distinct lanes from paper provider to printer. Secondly, unless a truck is shipping at least 80% full, the organization will be paying an FTL rate for an LTL truck. In other words, each

truck that ships with less than 3,200 reams will be shipping below the lowest cost per unit. Third, while most printers will end up shipping LTL to a hub, third party logistics carriers could pickup from up to three nearby printers in the same region and possibly even ship a full truckload. Fourth, every provider is offering discounts for volume thresholds, so the product/print cost depends on how much the organization buys, and if the organization buys from multiple suppliers to meet a region's demands, the breaks are such that one supplier will not be supplying enough in a single region to hit a volume break. Fifth, most printers that also provide paper give an additional discount on the paper buy for each sheet printed. And so on.

Our "simple" model is now a multidimensional model that Excel cannot handle – even though it is able to be described in just a few pages and we have not defined any constraints beyond capacity. Paper to printer, printer to hub, hub to distribution center with paper discount and/or print discount and/or bundled discount, where each leg is no ship if the paper is already at the printer, or shipping at an FTL rate even if the truck is half empty.

Complexity materializes quickly when any of the internal, external, or commercial conditions are met, and in this simple example, all but one of the complexity conditions are (at least partially) met. Specifically, the only condition we did not hit was breadth and diversity of the stakeholders, as we implicitly assumed that all of this was for Marketing.

A Partial Example of a Complex Tender

		REGIONS										
		North America					Europe			Australasia		
		Northeast	Northwest	Central	Southeast	Southwest	UK	Western	Eastern	Australia	New Zealand	Singapore
NEEDS	Paper (in reams)	15000	9000	15000	6000	15000	20000	40000	10000	6000	4000	5000
	Printing	15000	9000	15000	6000	15000	20000	40000	10000	6000	4000	5000
	Logistics (FTL) to Hubs	4	3	4	2	4	5	10	3	2	1	2
	Logistics (LTL) to DCs	6	6	8	5	8	6	15	9	5	2	

Table 1: Regional Paper, Print and Truck Demands

		REGIONS										
		North America					Europe			Australasia		
		Northeast	Northwest	Central	Southeast	Southwest	UK	Western	Eastern	Australia	New Zealand	Singapore
SUPPLIER (PAPER / PRINT)	Perfect Paper	20000/0		25000/0	10000/0							
	Paper Scraps								5000/0			5000/0
	Paper by the Pound						40000/0			10000/0	5000/0	
	Paddy's Printers						0/30000	0/10000				
	Print-tastic!	0/10000	0/20000	0/30000	0/5000	0/10000						
	Purple Fly Printing							0/30000	0/20000			0/10000
	Pulp and Print						10000/20000	20000/60000		10000/5000	5000/2500	
	Pristine Paper Printing	10000/10000	5000/5000	20000/20000		10000/10000						
	Leaflets and Logistics	20000/0	20000/0	30000/0								
	Scribbles and Shipping						10000/0	30000/0	20000/0			5000/0
	Print and Post	0/20000	0/10000	0/10000	0/10000	0/20000	0/20000	0/20000		0/5000	0/10000	
	Stamp and Ship	0/10000	0/50000	0/20000	0/50000	0/20000	0/10000	0/20000	0/30000			
	Mundus Media	10000/10000		30000/20000		10000/20000	15000/15000	25000/25000	0/5000			
	Terran Typesetting						25000/25000	50000/50000	10000/10000	10000/10000	5000/5000	10000/10000
	Planetary Printers	10000/10000	5000/5000	10000/10000	5000/5000	10000/10000	10000/10000	20000/20000	5000/5000	5000/5000	5000/5000	5000/5000

Table 2: Regional Paper and print Supply

		US$	Paper (Ream/ Over X)			Print (Page / Over X)			Discounts (% / Over X)		
		Location	Bid 1	Bid 2	Bid 3	Bid 1	Bid 2	Bid 3	Discount 1	Discount 2	Discount 3
SUPPLIER (PAPER/ PRINT)	Perfect Paper	North America	1.5/0	1.35/20000	1.2/40000						
	Paper Scraps	Eastern Europe	1.2/5000	1.1/10000	1.0/15000						
		Singapore	1.3/0	1.2/5000	1.2/10000						
	Paper by the Pound	UK	1.9/10000	1.8/20000	1.7/40000						
		Australia & NZ	1.75/5000	1.6/15000							
	Paddy's Printers	UK				0.9/10000	0.8/20000	0.7/40000			
		Western Europe				1.0/0	0.8/15000	0.5/35000			
	Print-tastic!	North America				0.5/0	0.35/20000	0.2/40000			
	Purple Fly Printing	Western Europe				0.7/15000	0.6/25000				
		Eastern Europe				0.35/5000	0.25/10000	0.15/25000			
		Singapore				0.3/0	0.2/5000	0.2/10000			
	Pulp and Print	UK	1.8/15000	1.6/30000	1.5/50000	0.95/10000	0.85/20000	1.75/40000	10% / 15000	15% / 25000	
		Western Europe	2.0/0	1.8/15000	1.5/35000	0.65/15000	0.55/25000		10% / 10000	15% / 30000	
		Australia & NZ	1.7/10000	1.6/20000		0.75/5000	0.6/15000		10% / 5000	15% / 15000	
	Pristine Paper Printing	North America	1.6/0	1.4/10000	1.2/20000	0.4/15000	0.3/25000	0.2/50000	15% / 20000	25% / 50000	
	Leaflets and Logistics	North America	1.65/0	1.4/10000	1.15/20000						
	Scribbles and Shipping	UK	1.8/20000	1.7/40000							
		Western Europe	1.7/15000	1.6/25000							
		Eastern Europe	1.3/5000	1.2/10000	1.3/15000						
		Singapore	1.4/0	1.3/5000	1.2/10000						
	Print and Post	North America				0.55/0	0.30/20000	0.25/40000			
		UK				0.95/10000	0.85/20000	0.75/40000			
		Western Europe				0.65/15000	0.55/25000				
		Australia & NZ				0.7/5000	0.6/15000				
	Stamp and Ship	North America				0.4/15000	0.3/25000	0.2/50000			
		UK				0.8/10000	0.7/20000	0.6/40000			
		Western Europe				0.7/15000	0.6/25000				
		Eastern Europe				0.35/5000	0.25/10000	0.15/25000			
	Mundus Media	North America	1.4/15000	1.3/25000	1.2/50000	0.5/0	0.35/20000	0.2/40000	5%/5000	15%/15000	25%/50000
		UK	1.9/5000	1.8/15000	1.7/25000	0.8/10000	0.7/20000	0.6/40000	5%/10000	15%/20000	25%/40000
		Western Europe	1.8/10000	1.75/20000	1.7/30000	0.7/15000	0.6/25000		5%/15000	15%/35000	25%/75000
		Eastern Europe	1.35/5000	1.25/10000	1.15/25000	0.35/5000	0.25/10000	0.15/25000	5%/5000	10%/10000	20%/20000
	Terran Typesetting	UK	1.9/10000	1.8/20000	1.7/40000	0.9/10000	0.8/20000	0.7/40000	10%/20000	20%/40000	30%/80000

Table 3: Regional Paper and print Supply

		PRINT HOUSES									
		Paddy's Printers	Print-tastic!	Purple Fly Printing	Pulp and Print	Pristine Paper Printing	Print and Post	Stamp and Ship	Mundus Media	Terran Typesetting	Planetary Printers
PAPER SOURCES	Perfect Paper	0	SM001	0	0	SM001 w/o SE	SM001	SM001	SM001 w/o NW, SE	0	SM001
	Paper Scraps	0	0	SM002	0	0	0	SM002 w/o S	SM002 w/o S	SM002	SM002
	Paper by the Pound	SM003 w/o AU,NZ	0	0	SM003	0	SM003	SM003 w/o AU,NZ	SM003 w/o AU,NZ	SM003	SM003
	Pulp and Print	SM004 w/o AU,NZ	0	SM004 w/o UK,AU,NZ	0	0	SM004	SM004 w/o AU,NZ	SM004 w/o AU,NZ	SM004	SM004
	Pristine Paper Printing	0	SM005	0	0	0	SM005	SM005	SM005 w/o NW,SE	0	SM005
	Leaflets and Logistics	0	SM006	0	0	SM006 w/o SE	SM006	SM006	SM006 w/o NW,SE	0	SM006
	Scribbles and Shipping	SM007 w/o EE,S	0	SM007 w/o UK	SM007 w/o EE,S	0	SM007 w/o EE,S	SM007 w/o S	SM007 w/o S	SM007	SM007
	Mundus Media	0	SM008	0	0	SM008 w/o SE	SM008	SM008 w/o NW,SE	0	0	SM008
	Terran Typesetting	SM009a w/o EE	0	SM009a w/o UK, SM009c	SM009a w/o EE, SM009b	0	SM009a w/o EE, SM009b	SM009a	SM009a	0	SM009a, SM009b, SM009c
	Planetary Printers	SM009a w/o EE	SM010a	SM009a w/o UK	SM009a w/o EE, SM009b	SM010a w/o SE	SM010a, SM009a w/o EE, SM009b	SM010a, SM009a	SM010a w/o NW,SE, SM009a	SM009a, SM009b, SM009c	0

Table 4a: Paper to Printhouse FTL Summary

SM001	NE	SE	C	NW	SW
NE	1200	3500	3200	10600	10200
SE	2600	1100	1800	6500	5800
C	2100	1500	1000	4200	4300

SM002	EE	S
EE	1400	X
S	X	800

SM003	UK	AU	NZ
UK	2000	X	X
AU	X	1300	2800
NZ	X	2600	1100

SM004	UK	WE	AU	NZ
UK	2000	3000	X	X
WE		1600	X	X
AU	X	X	1300	2800
NZ	X	X	2600	1100

SM005	NE	SE	C	NW	SW
NE	1200	3500	3200	10600	10200
C	2100	1500	1000	4200	4300
NW	1000	750	2200	900	1200
SW	5600	3800	3500	1900	800

SM006	NE	SE	C	NW	SW
NE	1200	3500	3200	10600	10200
C	2100	1500	1000	4200	4300
NW	1000	750	2200	900	1200

SM007	UK	WE	EE	S
UK	2000	3000	4000	X
WE	2400	1600	2000	X
EE	2200	1600	1400	X
S	X	X	X	800

SM008	NE	SE	C	NW	SW
NE	1200	3500	3200	10600	10200
C	2100	1500	1000	4200	4300
SW	5600	3800	3500	1900	800

SM009a	UK	WE	EE
UK	2000	3000	4000
WE	2400	1600	2000
EE	2200	1600	1400

SM009b/c	AU	NZ	S
AU	1300	2800	X
NZ	2600	1100	X
S	X	X	800

SM010a	NE	SE	C	NW	SW
NE	1200	3500	3200	10600	10200
SE	2600	1100	1800	6500	5800
C	2100	1500	1000	4200	4300
NW	1000	750	2200	900	1200
SW	5600	3800	3500	1900	800

Table 4b: Paper to Printhouse Breakout Tables

Appendix E
Glossary

3PL – third party logistics, abbreviation

3PM – third party management, abbreviation

A

aggregated buy – the purchase of two or more items or services in a bundle in an effort to secure a discount

AI – artificial intelligence, abbreviation

alert – an automatic notification or reminder sent from a technology platform

analytics – a method used by an entity to arrive at a realistic or optimal decision from a variety of options using available data

AR – accounts receivable, abbreviation

arms length – the parties in a transaction act independently and have no relationship to each other

ASP – application service provider, abbreviation

auction – a process of buying or selling goods or services. In general, it usually refers to a forward auction where one buyer offers one or more goods or services to many sellers, but in Sourcing, it usually refers to a reverse auction where many sellers offer goods or services to a single buyer

award scenario – a "what-if" scenario that specifies a target award that is used to draft offers and begin negotiations

B

B2B – business to business, abbreviation

B2C – business to consumer, abbreviation

balanced scorecard – a concept for measuring whether the activities of a company are meeting its objectives in terms of vision and strategy

benchmark – one or more performance metrics that define market average or market leading performance that an organization can use to measure its performance

best-of-breed – refers to an application that is at least as good as, if not better, than any other application on the market that accomplishes the same functions

bid form – a standardized form that one or more suppliers use to bid on one or more products and / or services in a category that is put out to tender

bid sheet – see bid form

bidding round – refers to a single round in a multi-round RFX or (reverse) auction where only the winners of the current round will advance to the next round

bill of materials – a list of the raw materials, sub-components, and sub-assemblies required to produce an end product and the quantities of each needed to manufacture the end product

BOM – bill of materials, abbreviation

bundle – a collection of goods being bid on as a unit, also known as a lot

business case – an argument or rationale for initiating a task, project, or purchase

C

C-Level – as with C-Suite, refers to the top level of corporate executives, and includes the CEO, CFO, CMO, CPO, etc.

C-Suite – as with C-Level, refers to the top level of corporate executives, and includes the CEO, CFO, CMO, CPO, etc.

category – a collection of related goods and/or services that share one or more characteristics that are typically sourced as a whole

category management – the process by which all of the products and services sourced by an organization (or sold by a retailer) is broken down into discrete groups of similar or related products and services for sourcing and management purposes

change management – an approach to transitioning individuals, teams, and organizations from a current process or platform state to a desired future process or platform state

CLM – contract lifecycle management, abbreviation

COGS – cost of goods sold, abbreviation

collusion – when two or more suppliers (illegally) cooperate to fix bids at a minimum level

complex tender – a formal, structured, invitation to suppliers to bid to supply products and / or services in a complex category that exhibits one or more internal, external, or commercial factors that make the tender inherently complex

compliance – in Supply Management, generally refers to regulatory compliance where an organization does its best effort to insure it is aware of, and takes steps to comply with, relevant laws and regulations or contract compliance, where an organization does its best effort to comply with the terms of a contract

conflict resolution – a negotiation in which two or more parties try to find a mutually acceptable solution to a disagreement among them

constraint – a physical, financial, regulatory, or other business restriction that must be adhered to

constraint programming – a programming paradigm that is emerging in operations research wherein relations between variables are stated in the form of constraints and where the goal is focused on finding feasible, rather than optimal, solutions

consumable – a product, component, raw material, or service that the organization needs to purchase to support its operation or its customers

contingency plan – a plan that is devised for dealing with an unlikely situation that could occur and that, if not able to be responded to quickly, could present the organization with a significant risk or disruption to usual activities

contingent labour – workers who work for an organization on a non-permanent basis, and which includes day laborers, freelancers, independent professionals, temporary contract workers, independent contractors, consultants and other non-permanent employees

contract (lifecycle) management – the process of systematically and efficiently managing the creation, execution and analysis of contracts made with customers, vendors, partners, or employees with the intent of maximizing operational and financial performance and minimizing risk

cooperative supply – when two or more suppliers work together to meet a buyer's needs

corrective action – a change or improvement to a process that is taken to eliminate a non-conformity or other undesirable situation

cost avoidance - generally refers to sourcing decisions that will result in future spending being less than predicted, but not less than the level of current spending. The goal is to decrease the rate of inevitable cost increase

cost model – a model that is used to estimate the cost of a product or service that breaks the cost down into individual cost components, such as raw materials and overheads for products and hourly rates and associated expenses for services; the breakdown could be fixed costs for each component based on average market rates or a set of one or more cost estimation equations based on market data and assumptions on production and / or delivery efficiency

cost reduction – generally refers to sourcing decisions that will result in future spending being less than current spending

CRM – customer relationship management, abbreviation

cross-docking – a logistics practice of unloading boxes or pallets from an incoming truck or railroad car and then loading them directly onto outbound trucks or rail cars with no intermediate storage

cross-lot ranking – where a buyer makes an award decision after a sealed-bid or auction by ranking suppliers' bids across multiple lots or bundles using a (weighted) formula that takes the relevant costs and benefits into account

CSR – corporate social responsibility, abbreviation

customer relationship management – the opposite of supplier relationship management, it focuses on managing the outbound, versus the inbound, supply chain

D

dashboard – a graphical presentation of current performance with respect to historical trends for a category, department, function or organization that is usually, but not necessarily, real-time, and usually, but not always, easy to read and drill into; many reporting and analysis systems, as well as many Sourcing systems with reporting and analysis components, contain a dashboard that summarizes current performance, current events, and outstanding activities and associated data

decision optimization – the application of rigorous analytical techniques to a well-defined scenario to arrive at the absolute best decision out of a multitude of possible alternatives in a rigorous, repeatable, and provable fashion

demand reduction – efforts aimed at reducing the internal, or external, demand for products or services that are deemed unnecessary or costly to the organization

direct sourcing – used to refer to the sourcing of a product or service that is fundamental to the operations of the business; for a CPG (Consumer Purchased Goods) company, it will be the products that the organization offers for (re)sale

dual sourcing – a risk-mitigation sourcing strategy where a buyer splits award between two suppliers

E

EDI – electronic data interchange, abbreviation

elevator pitch – an overview of an idea for a product, service, or project

e-Marketplace – an online marketplace where a customer or business can acquire goods and/or services

e-Negotiation – refers to a negotiation process enabled by an e-Sourcing or e-Negotiation platform

ERP – Enterprise Resource Planning, typically refers to the ERP system

e-Signature – an abbreviation for electronic signature, it refers to the electronic signing of a document by a means that insures that the signature attached to a document does indeed belong to the individual who is purported to have signed it

e-Sourcing – electronic sourcing, it is the electronic implementation of the sourcing cycle from spend analysis through award and contract management

ethics – proper conduct

ETL – extract, transform, load; abbreviation

evergreen contract – a contract that automatically renews unless action is taken

exit plan – a plan for exiting a contract early if a situation arises that requires the termination of the contract

expiry management - the process of managing contract expirations to insure that renewals or terminations happen at the desired times in the desired manners

extract, transform, load – a common process that refers to the extraction of data from one software platform in a first data format, transforming the data from the first data format to a second data format, and then pushing that data into a second software platform that understands the second data format

F

federation – logic used in data warehouses to "join" two or more data records together on a common attribute

force majeure – sometimes known as *cas fortuit* (French) or *casus fortuitus* (Latin), refers to a "superior force" or "act of God" that is the result of a "chance occurrence or unavoidable accident" that has affected one or more parties ability to deliver against a contract; a common clause in many contracts, it frees both parties from liability or obligation when an extraordinary event beyond the control of either party – such as war, (third-party) strike, natural disaster, etc. – prevents that party from fulfilling its obligation for the duration of the event

free trade zone – a specific class of special economic zone defined as a geographic area where goods may be landed, handled, manufactured or reconfigured, and re-exported without the intervention of the customs authorities

FTL – Full TruckLoad, abbreviation

FTZ – Free Trade Zone, abbreviation

functional organization - a type of organizational structure based on the principle of specialization based on function or role – such as Accounting, Marketing, Engineering, and Sourcing – where each function is responsible for decisions related to the function it controls

G

Gantt chart – a graphical illustration of a schedule built on a horizontal bar chart that helps to plan, coordinate, and track specific tasks in a project as well as resources assigned to those tasks

gap analysis – refers to the comparison of an actual state with a potential or desired state, possibly using actual data or metrics with projected data or metrics a region in which the organization does business; depending on the organization, it can be a state, a collection of states that are near each other, a country, a collection of countries that are near each other, or a continent

governing law – specifies the law that governs the contract and dealings between two or more parties

GRC – governance, risk, and compliance; abbreviation

guided sourcing – fully utilizing the knowledge base and technology at one's disposal to make the best sourcing decision possible

H

hard constraint – a business, regulatory, or process constraint that cannot be violated; for example, the plant cannot produce more than 10,000 units a day, a truck cannot hold more than 2,000 units, and the export quota for the supplier is 20,000 units

hierarchy of supply – like Maslow's hierarchy of needs, the hierarchy of supply specifies the relative importance of Sourcing priorities, which range from supply assurance to cost management through demand management to value management

HS – abbreviation for Harmonized Commodity Description and Coding System, an internationally standardized system of names and numbers to classify traded products, developed and maintained by the World Customs Organization (WCO) and in effect since 1988

HTS – abbreviation for Harmonized Tariff Schedule, the U.S. implementation of HS

hybrid sourcing – blending sourcing technology with third-party supply market and sourcing intelligence

I

inbound logistics – refers to the logistics inbound to the company that brings goods from supplier locations to company locations

INCOTERMS – international terms of sale developed by the International Chamber of Commerce to define sellers' and buyers' responsibilities

incumbent supplier - the supplier who was most recently contracted to award the consumable to the organization

indirect sourcing – used to refer to the sourcing of a product or service that is not considered to be fundamental, or strategic, to the operations of the business; for a CPG (Consumer Purchased Goods) company, it will typically be office supplies or contingent labour for direct to consumer shipping (during peak seasons)

infeasibility – a model that cannot be solved or a situation that cannot be remedied under the current set of (hard) constraints

inventory management – the process of managing the supply and storage of physical consumables between shipments

IP – intellectual property, abbreviation

J

JIT – just in time, abbreviation

just in time – refers to the manufacturing and/or delivery of a product when it is needed, and not before, to minimize inventory time and cost

K

kaizen – "*continuous improvement*", it refers to those activities that continually improve organizational functions through the involvement of all activities

kanban – a system to control logistics from a production point of view

Kaplan scorecard – a balanced scorecard designed by Robert Kaplan and David Norton as an organizational performance measurement framework

keiretsu – a set of companies with interlocking business relationships and shareholdings

key performance indicator – a business metric that evaluates a performance indicator deemed to be critical to the success of the business

KPI – key performance indicator, abbreviation

L

LCCS – low cost country sourcing, abbreviation

lead time - the latency between the initiation and execution of a process, it generally refers to how many days notice a supplier needs to produce and ship a product

leakage - the process by which negotiated savings fails to materialize due to maverick spend, off contract spend, expedited shipments, or other unintended situations that arise in the execution of the contract

lean – a systematic method for the elimination of waste in a manufacturing or business process

life cycle cost – the cost of a product or service over its entire lifecycle, from initial production through utilization or sale to return and reclamation

line item – refers to an individual product or service on a tender or a bill of material

linear programming – a special case of mathematical programming designed to find the optimal outcome to a mathematical model whose requirements are represented by linear relationships and that can be solved in weakly polynomial time

lot – a collection of goods being bid on as a unit, also known as a bundle

lot cascading – automatic overtime in an auction if a bid comes in during the last minutes or seconds, allowing other participants time to respond

LP – linear programming, abbreviation

LTL – less than truckload, abbreviation

M

make vs. buy – refers to the choice each organization has of either producing a consumable in-house or purchasing it from an external supplier

market analysis – a study of the dynamics of a market within an industry, usually one that produces one or more consumables of interest to the organization

master data - refers to organizational data about customers, suppliers, partners, other third parties, consumables, accounts, and other critical entities that is designated as the primary data about those entities. In the case of data conflict between multiple systems, the master data source will be taken as authoritative

matrix organization - a "dotted line" organizational structure where multiple individuals have "dotted line" reporting relationships to managers outside their home department as a result of different projects they are assigned to

maverick spend – another name for off-contract spend

MDM – master data management, abbreviation

meta-aggregation – in spend analysis, the ability to derive dimensions based on the result of a previous aggregation step

metadata – data about data; for example, category, date, and owner would be meta-data for a contract document

micro-map – in spend analysis, refers to a dataset that is designed for a commodity specific investigation of spending and usage patterns

MILP – mixed integer linear programming, abbreviation

mixed integer linear programming – a special case of mathematical programming designed to find the optimal outcome to a mathematical model whose requirements are represented by linear and integer relationships, and while these problems are NP-hard, there exist solution algorithms that, given enough time, are guaranteed to find the optimal answer

MRO – maintenance, repair, and operations, abbreviation

multi-modal – also known as combined transport, it is the transport of goods using at least two means of transport (such as air, ocean, truck, or rail) by way of a single carrier and/or contract

m-way match – refers to matching a data element between m instances in multiple records, in e-Sourcing it is often defined as a 3-way match between the contracted price, the purchase order price, and the invoiced price

N

NDA – non-disclosure agreement, abbreviation

next N – in spend analysis, refers to the categories or suppliers that compose the majority of the "level 2 spend" that are analyzed after the top N categories or suppliers that compose the majority of the "level 1 spend" are analyzed

NP-complete –a decision problem for which there is no known algorithm that can solve it in less than exponential time

NP-hard – a class of problems that are at least as hard as any problem in NP

O

OLAP – on line analytical processing; abbreviation

on-demand – refers to software available over the Internet when a user wants it – does not distinguish between true multi-tenant SaaS and hosted ASP

optimization – the study of problems in which one seeks to minimize or maximize a real function; in sourcing, one is usually concerned with decision optimization

outbound logistics – refers to the logistics outbound from the company that sends goods from company locations to customer locations

outlier – a value that is distant from other, related, values

P

P-card – purchasing card; a form of company charge card that allows goods and services to be procured without using a traditional sourcing process

penalty - a punitive charge or punishment imposed for breaking a rule, contract, or law

penny wise and pound foolish - a phrase that refers to a situation where one is careful and economical in small matters but, as a result, ends up being wasteful or extravagant in large ones

Porter's five forces analysis – a framework to analyze the level of competition within a market, it considers the bargaining power of suppliers, the bargaining power of buyers, the threat of new substitutes, the threat of new entrants, and industry rivalry

post-mortem – the project management term for the post contract assessment designed to identify those aspects that were successful and unsuccessful so the organization can identify key takeaways that can be used to improve future projects

PPU – Price Per Unit, abbreviation

price pledging – a guarantee by a buyer that the buyer will pay a minimum price for a good or service to a supplier

project organization – an organizational structure that facilitates the coordination and implementation of project-based activities that is typically organized in a pyramidal fashion where individuals closer to the top of the pyramid have more authority than individuals near the bottom

proxy bidding – where a third party bids on behalf of a buyer in a forward auction or a supplier in a reverse auction

pull the wool – an attempt by an individual or organization to deceive

purchase order – an order to a supplier for goods and/or services, often against a contract

Q

qualitative constraint – a constraint defined on a non-cost factor such as quality, reliability, and/or safety rating

R

rabbit – in general, a small mammal in the family Leporidae of the order Lagomorpha that is found in several parts of the world; but in sourcing, it refers to a bidder who masquerades as a competing supplier in an e-Auction in an event to drive down bids

repository – a central location for the storage of data, typically contracts in a contract management system

requisition – a request by an employee of a buyer to a purchasing agent to submit a purchase order to a supplier for goods and / or services

reserve bid – a minimum bid that must be made to respond to a tender or an auction

reverse auction – an auction where multiple suppliers compete for a buyer's business

reverse logistics - the process of reclaiming goods and services from the customer, either as a result of a warranty process or the result of a reclamation process designed to capture valuable raw materials or comply with disposal regulations

RFB – request for bid, abbreviation

RFI – request for information, abbreviation

RFP – request for proposal, abbreviation

RFQ – request for quote, abbreviation

RFx – request for x, where x may be B, I, P, or Q; abbreviation

risk – a potential negative impact to an asset, decision, or supply chain

risk mitigation – steps taken to prevent a risk from happening, or to mitigate the negative impact should it happen

ROI – return on investment, abbreviation

ROLAP - real-time OLAP, abbreviation

S

SaaS – Software as a Service, abbreviation

sacred cow – an idea, custom, or institution that is unreasonably held to be above criticism or approach

scorecard – typically refers to a balanced scorecard

sealed bid – refers to a type of tender where the bids made by each responder are not disclosed

should-cost model – a cost model that is intended to represent the true cost of the production or acquisition of a consumable

SIM – supplier information management, abbreviation

six sigma – a set of practices, originally developed by Motorola, to systematically improve processes by eliminating defects

SKU – stock keeping unit, abbreviation

SMOCS – Suppliers, Markets, Opportunities, Customers, and Spend; abbreviation

sniping – refers to the practice of a bidder waiting until the closing minutes or seconds of an auction to place a winning bid in an effort to prevent other bidders from having a chance to respond

soft constraint – a business constraint that is based on business decisions and not physical real world constraints, such as previous contractual commitments or a desire to split award to mitigate risk, which could be violated if the organization is willing to incur a penalty

Software as a Service – delivery of application software functionality over the Internet from a true multi-tenant application instance that may be shared across many clients; it is on-demand, but should not be confused with a hosted ASP model

sole-sourcing – the process of sourcing a good or service from a single supplier

sourcing – the process of identifying suppliers from which to buy goods and/or services

sourcing grid – a framework for thinking about the right approach to procuring specific goods and services

spend analysis – the process of aggregating, classifying, and leveraging spend data for the purpose of gaining visibility into cost reduction, performance improvement, and contract compliance opportunities

spend cube – a(n) (R)OLAP data cube on spend data, that, at a minimum, can be used to answer the question who is buying what from whom, but, in a more advanced scenario, might be used to answer who is buying what from whom, at what cost, when, and where it is coming from, where it is going to, how it is getting there, and, if the purchase is good or bad (and compliant with policy, regulatory risk-free, and on-contract with preferred suppliers), why and, most importantly, how to use this data to get a better deal

spend mapping "secret sauce" – map the GL codes, map the vendors, map the GL code + vendor combinations (where a vendor supplies more than one GL code), and then map the exceptions (and, if necessary, the exceptions to the exceptions)

SPM – supplier performance management, abbreviation

spot-buy – a one-time buy for a consumable on the open market at market prices

SRM – supplier relationship management, abbreviation

stakeholder – either a person, group or organization that has an interest or concern in a Sourcing event, or, someone holding a stake

stock keeping unit – a standardized product code

strategic sourcing – an institutional procurement process that continuously re-evaluates the purchasing activities of a company

suite – in the sourcing world, usually refers to a software application suite which is a collection of sourcing applications, usually (but not always) integrated

supplier information management – the process of collecting, maintaining, and managing all information on a supplier relevant to the business

supplier network – on online portal where a buyer can discover and interact with multiple suppliers. The extent of the interaction can range from simple communication to order placement, invoice receipt, and payment

supplier on-boarding – the process of setting up a supplier on the organizational systems and platforms necessary to conduct efficient and effective business with the supplier

supplier performance management – a process designed to measure, analyze, and manage the performance of a supplier in an effort to cut costs, alleviate risks, drive continuous improvement, and increase the value of the relationship

supplier portal – on online interface to the organization's Sourcing platform where a supplier can access the information, RFXs, auctions, and online events made available to the supplier, ask questions, and provide the organization with the requested information, bids, and documents

supplier relationship management – a process designed to measure, manage, and maximize the value of a supplier relationship; generally includes performance management and information management

T

T's & C's – terms and conditions, abbreviation

tariff – a tax on imports or exports

TCA – total cost of acquisition, abbreviation

TCO – total cost of ownership, abbreviation

template – generally refers to a standard process or form

tender – a formal, structured, invitation to suppliers to bid to supply products and or services

theory of constraints – a methodology for identifying the most significant limiting factor that stands in the way of achieving a goal and then identifying ways to systematically reduce the dependence on that factor until it is no longer the limiting factor

third party logistics – a firm that provides outsourced logistics management services for part or all of a company's inbound and/or outbound supply chain

third party management – an extension of supplier relationship management where the management paradigm is extended to include partners and other entities upon which the organization's success depends

three-bids-and-a-buy – refers to the outdated Sourcing practice of simply getting three bids from the first three suppliers the buyer is able to identify and selecting the lowest bid

three strikes – a phrase that originated from American baseball, in which a batter was "out" if he struck out three times, that generally means that a third party only gets three chances to get it right because, if they strike out three times, they will be barred from doing business with the organization

three-way match – often synonymous with m-way match, it refers to the process of insuring that the contracted rate matches the purchase order rate which matches the invoice rate before payment is made during the e-Sourcing process

TLC – total landed cost, abbreviation

top N - in spend analysis, refers to the categories or suppliers that compose the majority of the "level 1 spend", usually defined to be between 60% and 80% of organizational spend

TQM – Total Quality Management, abbreviation

true-cost modeling – the practice of building cost models using detailed breakdowns, relationships, and formulae that accurately represent the true cost of a consumable under investigation instead of a simplified approximation in an effort to accommodate an antiquated system or process

TVM – Total Value Management, abbreviation

U

UCC – Uniform Commercial Code, abbreviation

unconstrained scenario – refers to a sourcing scenario that only specifies the consumable requirements and supplier capacities; no additional business or supplier constraints are included

UNSPSC – the United Nations Standard Products and Services Code, abbreviation

V

visual cross-tab – the display of hierarchical information on spend data using Schneiderman diagrams in spend analysis

VMI – vendor managed inventory, abbreviation

W

what-if scenario – a hypothetical scenario constructed by an analyst to analyze the cost-benefit of a certain award scenario before an offer is made or a contract signed

workflow – a reliably repeatable pattern of activity enabled by a systematic organization of resources, defined roles, and information flows that is distilled into a work process that is documented

X

XML – eXtensible Markup Language, abbreviation

Y

YMS – Yard Management System, abbreviation

Yard Management System – a system designed to manage the coming, going, and staging of trucks and trucks with trailers in the parking "yard" that serves a warehouse, distribution center, or manufacturing facility

Z

zone price – the constant price of a product at all geographic locations within the zone

Further Reading

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Michael G Lamoureux, PhD, is the founder and Editor-in-Chief of Sourcing Innovation (blog.sourcinginnovation.com). Founded in 2006, it is one of the longest running independent Sourcing and Supply Management blogs. As *the doctor of Sourcing Innovation*, Michael has been dedicated to educating Sourcing and Supply Management professionals on technology, best practices, and key issues affecting the field.

With a PhD in Computer Science; expertise in data structures, algorithms, analytics, and optimization; and experience as a software and systems architect, research scientist, and Chief Technology Officer (CTO), Michael brings a unique perspective to the Sourcing and Supply Management space.

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