

Complex Sourcing: Are You Ready?

A White Paper by Sourcing Innovation

<http://blog.sourcinginnovation.com/>

You're probably thinking that this is an oxymoron, because Kraljic¹ gave us a simple four-quadrant purchasing model over thirty years ago that you've been happily using since you learned about it. However, as Andrew Cox has clearly explained in his latest book on Sourcing Portfolio Analysis², we now know that Sourcing is a lot more complex than one might think it is. Even AT Kearney's Procurement Chessboard³, which is essentially a twenty-first century update to the Kraljic model that essentially breaks each quadrant into a four by four grid based upon a plethora of factors, and which gives us a 64-square breakdown, doesn't capture the true complexity of modern sourcing.

Why? As Cox clearly states, classic Sourcing analysis methodologies focus on overall supply market dynamics, but buyer relationships are with individual suppliers. Thus, it's not just the overall market dynamics that matters, but also the power relationship between the buyer and the individual suppliers being considered. However, even this isn't enough to make a good decision. It's enough to select a sourcing strategy, but one still has to deal with the large variation between suppliers, products, prices, and requirements before one can select one or more suppliers for an award.

This variation can add more complexity than any two-dimensional grid can capture. As a result, sourcing a category is a complex endeavor that requires a complex tender and a platform capable of handling that complexity. However, until you understand what the dimensions of complexity are, how they can hide in your low and high dollar categories alike (and cost your organization millions of dollars if not properly identified), what is needed to deal with these complex categories, and how you determine if your processes and platforms are up to the task, not only will you not be ready for the complexity, but you won't even know if you're approaching the category correctly.

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In order to make sure you understand how to identify complexity, this paper reviews the nine primary sources of complexity. Then, in order to make sure you understand how sourcing needs to evolve in your organization, this paper not only provides a brief history of sourcing but provides an example of a classic category that has always been thought to be a simple category when in fact all nine factors of complexity hide within. Furthermore, in order to make sure you understand what processes you need to effectively tackle a complex category, which requires a complex tender, this paper reviews key supporting platform requirements which you will not find in the majority of e-Sourcing platforms, and first generation e-Sourcing platforms in particular.

A Brief History of Sourcing

In the beginning

Back in nineteen fifty five

Man didn't know 'bout a rock 'n' roll show

And all that jive

Angus Young, Malcolm Young, & Bon Scott, 1977

About the same time, most Procurement departments didn't know about sourcing either. MRO and office supplies were bought from a catalog, services that did not require full time employees were done by temporary labour obtained from Manpower, and direct spend was with preferred suppliers of materials and components selected by Engineering and Manufacturing. There was no strategic procurement to speak of.

But then the outsourcing and right-sizing crazes hit in the eighties, more spend was outbound, and companies needed to get this spend under control. In large organizations, the age of Procurement began and before a major contract was issued, three bids were solicited, and the three-bids-and-a-buy era of Procurement began. Why three? Two is not enough to be confident one is getting a reasonable deal, but more than three was too much of a headache. One has to remember that the first spreadsheet program for PCs was VisiCalc for the Apple II's in 1979 and the first version of Microsoft Excel was released in 1987. Furthermore, the first RFX platforms did not materialize until the mid-to-late nineties, and these types of programs were needed to help buyers do true side-by-side bid comparisons.

Fast-forward to the mid-2000's and a number of first generation e-Sourcing and e-Procurement platforms were widely available and companies graduated to multi-stage RFX processes with

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more than three suppliers, auctions for widely available commodities and services, and, in some cases, simple optimization models for high dollar categories such as transportation, packaging, and CPG.

Ten years later, and we have the situation where most companies that adopted these platforms are still using these exact same platforms. While these platforms granted these buyers more power than they ever had when these platforms were first released, and were a saving grace to many organizations, these days these first generation platforms barely meet the status quo.

The first time an organization ran an auction or did a multi-round RFX, considerable fat was identified in the margins and considerable savings resulted. The next time the same event was run, while savings were often identified, they were usually minimal. Then inflation took over and the third event generally resulted in a slight cost increase. All successive events were able to do was reign cost increases in. For more savings, the next generation of sourcing is needed.

There are a few reasons for this. Not only is the time of near zero inflation, which was the case for much of the noughts, long over, but hyper-inflation is already hitting in many categories and is right around the corner in many other categories. Also, because market growth is low, and sometimes stagnant, in many first world economies, the power of the volume lever is limited and promises of future growth just don't work. Natural and man-made disasters are on the rise and risks associated with certain regions and suppliers are increasing and many categories need to be dual-sourced for safety. And, most importantly, with suppliers' suppliers now outsourcing, supply chains, and tenders, are getting more complex by the day -- and most platforms are not ready for the complexity this entails.

Sourcing Has Changed, Have You?

Sourcing has gone from three-bids-and-a-buy through a simple RFP process to a complex lifecycle process that starts with a need identification through spend analysis and modeling, progresses through a multi-round RFX to identify the market dynamics and sourcing strategy, possibly uses a weighted auction to identify the top suppliers, then uses optimization to fully understand all the costs and benefits of each option, and finishes with a sophisticated contract negotiation and management lifecycle that dots all the i's, crosses all the t's, and ensures that plans become reality. For more details on this process, the reader is referred to *The Strategic Sourcing Lifecycle*⁴, published by TESS Academy.

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In addition, as per the introduction, risks are increasing, the chances of an average company experiencing a major supply chain disruption is 80% to 90% (as highlighted in a number of recent studies since Zurich's 2012 study⁵ that first identified this level of disruption), compliance requirements are multiplying like rabbits across North America (10+2, EPAⁱ acts, FCPAⁱⁱ, Transparency & Human Trafficking, etc.) and the EU (REACHⁱⁱⁱ WEEE^{iv}, RoHS^v, EUTR^{vi}, UK Bribery, UK Modern Slavery, etc.), supplier relationship and performance management is critical to keep quality and reliability high and costs under control, supplier development and innovation is critical to new product development initiatives necessary to maintain market share, visibility is necessary to mitigate and respond to risks, and regular analysis and reporting is necessary to keep on top of opportunities for continual improvement and cost reduction.

As a result of these, and other factors, sourcing events, and the tenders they are based on, have become more complex. What do we mean by this? To be precise, we mean that the category that defines the sourcing event contains one or more internal, external, or commercial factors that make the resulting tender inherently complex. What are these factors?

As initially defined in Peter Smith's recent white paper on *What Defines Complex Sourcing and Why Does it Matter?* <http://spendmatters.com/research/what-defines-complex-sourcing-and-why-does-it-matter/>, and slightly clarified in *The Strategic Sourcing Lifecycle*⁴ a complex tender is something that exhibits one or more specific characteristics that are inherently complex.

Before we define these nine characteristics, it's important to note that neither the volume of the spend, the importance of the category, the urgency of the need, nor the inherent risks in the category define a category as complex. For example, the gas spend for a transportation company is huge, but the buy is not complex. There are only a few big gas companies to contract with, the product by grade is almost identical, and a simple bid suffices. Similarly, steel is important for a manufacturer, but the category is again pretty straightforward on its own. An expiring category for MRO services is urgent if the services are needed to keep the production line up, but if there are only a few providers in the area, a simple bid again suffices. And if the risk is category specific, and the risk is the same for each supplier, it has no effect on the sourcing strategy.

ⁱ EPA, Environmental Protection Act

ⁱⁱ FCPA, Foreign Corrupt Practices Act

ⁱⁱⁱ REACH, Registration, Evaluation, Authorisation and Restriction of Chemical

^{iv} WEEE, Waste Electrical and Electronic Equipment Directive

^v RoHS, Restriction of Hazardous Substances

^{vi} EUTR, EU Timber Regulation

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However, each of the following nine factors in the following table make a category quite complex.

Diversity of stakeholders ... with conflicting requirements	Number of suppliers ... and supplier variation	Supply Chain Options
Diversity of requirements	Alternative Market Solutions	Pricing Models
Number of lots and variants	Capacity Constraints	Conditional Options

Table 1: Sources of Complexity

Breadth & diversity of stakeholders with conflicting requirements

Any RFX platform can be used to conduct internal surveys and any project management program can be used to manage the process, but traditional platforms have no functionality to support the analysis, comparison, and resolution of conflicting requirements.

Breadth & diversity of requirement

If goods need to be delivered to many different locations, and could come from many different locations, this is much more difficult than just doing a sole source electronics buy from the sole source supplier and shipping it to the primary distribution facility.

Number of lots and variants

Just like the size of the spend does not make the category complex, neither does the number of line items on its own. For example, 100 lines on an office supplies buy for standard products is pretty simple. But as soon as there are multiple options to fulfill each line item and multiple ways to bundle lots from a supplier and get discounts or rebates, the simple becomes the dizzying.

Number of suppliers ... and variation therein

Simply having one hundred potential suppliers doesn't make a bid complex. Commodity RFX software can handle one hundred suppliers as easy as that same software can handle one supplier. However, as soon as the supply base gets large and the suppliers span different regions, pose different risks, offer different products, and possess different commercial advantages, the category, and tender, can get very complex.

... traditional platforms have no functionality to support the analysis ...

Alternative market solutions & offerings

If the category can be satisfied in multiple ways, with multiple offerings, then, whether there is one supplier or a hundred suppliers offering multiple solutions, the category is complex.

Capacity (& allocation) constraints

If every supplier can satisfy the entire bid, there is no complexity. But if no single supplier can satisfy the entire bid, and multiple suppliers need to be selected, the bid is complex. Similarly, if the buy needs to be spread out across multiple (warehouse) locations, the category is also complex.

Supply chain options

If there is more than one way to structure the supply chain, each with its own advantages and disadvantages, the bid is complex. This is true in categories where there are make vs. buy options, local vs. regional vs. national suppliers, on-site amalgamation of services vs. distribution to take advantage of specialties or economies of scale, and so on.

Pricing models

Tenders that require a single bid per item or lot are not complex. But tenders that require, or allow, suppliers to make multiple bids based upon different volume levels, or different substitution options, becomes very complex very fast as the pricing model very quickly becomes quite complicated.

Conditional options

Not only can pricing models be complex, but supplier responses can be even more complex, such as when there are conditional discounts if a group of products is purchased, if a total volume or spend is reached, and so forth.

And, of course, the more of these factors that are present, the more complex the project. For example, a global print tender for Marketing, Sales, and HR who require black and white and color fliers, catalogues, posters, banners, and product brochures, localized to different parts of the world, where the paper can come from paper suppliers or be bought from the printer, where the printer can be global, national, or international, where the printer may or may not be able to meet all of the printing needs, where shipping can be handled by the printer or a 3PL, that may do Less-than-Truckload (LTL) pickup bundling in a local region in order to reach Full Truckload (FTL) capacity, where the cost depends on the volume, and the particular items allocated, is an example of an incredibly complex tender as it satisfies all of these conditions for complexity.

Not only can pricing models be complex, but supplier responses can be even more complex ...

The reality is that not all Sourcing tools embrace complexity and the power that comes from embracing complexity. As a result, these tools cost you the opportunity to identify new sources of saving and value.

Most “simple” tenders are actually complex.

In today’s global supply chains, complex tenders are not the exception as they are increasingly the norm at most companies. This section is going to illustrate this point by building on the example above and demonstrating that even a simple print tender can be exceedingly complex as even a simple print tender can satisfy every single one of the nine complexity requirements outlined above.

Breadth & diversity of stakeholders with conflicting requirements

In most organizations, every department will have printing requirements. Sales will want traditional print catalogues for the older generation. Marketing will want glossy product brochures for new products. HR will want employee training manuals. All of this is paper, but yet all of this is not just paper as you can’t just run it all through a desktop printer and satisfy the different departments.

Department	Sales	Marketing	HR
Need	Catalogues	Brochures	Manuals

Breadth & diversity of requirement

Marketing will want color. Depending on the market and the product, Sales may accept black and white and may want full color. HR will want to save money for the retreat and will just want cheap black and white manuals. In addition, the desired paper weights and finishes will vary as well.

Paper	Sales	Marketing	HR
Weight	Light	Heavy	Medium
Finish	Plain to Bright	Glossy	Plain
Binding	Glue	None (Folding)	Coil
Color	Yes and No	Yes	No

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Number of variants or lots

Marketing will want the brochures on thick paper that is almost a card stock. HR will want the manuals light and cheap. Sales will want to minimize postage and shipping on the catalogues so the paper will have to be ultra thin but yet ultra strong so the buyer can look through it again and again. The variation on the paper requirement alone can get quite high.

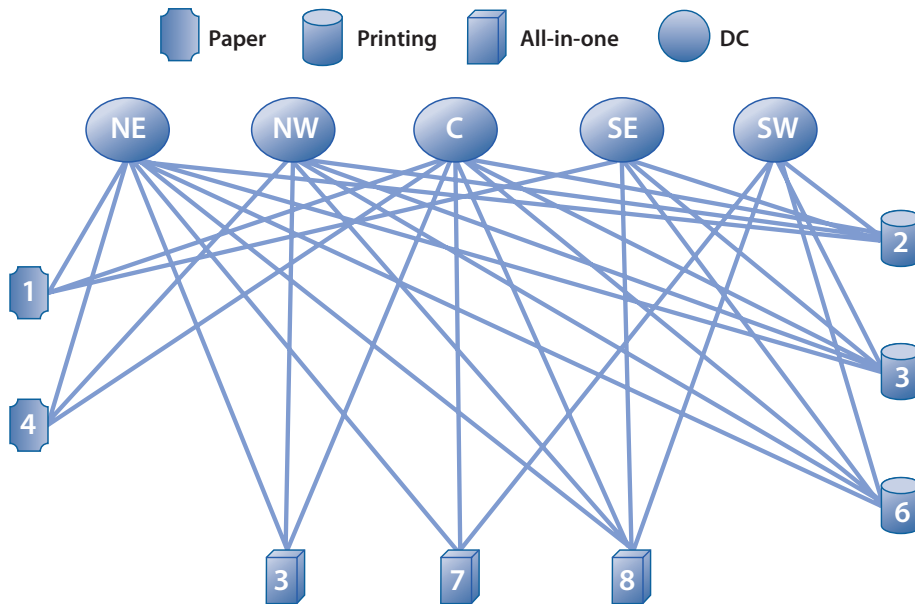
Paper	Sales	Marketing	HR
Weight	10/15/20 lb. stock	50/60/70 lb. stock	20/25/30 lb. stock
Finish	20% to 50% Bright	80% to 90% Bright	40% to 60% Bright
Binding	Glue	None (Folding)	Coil
Color	BW, 256 Color	Full Color	BW

Even the variation on something 'simple' like the paper requirement can get quite high

Number of suppliers ... and variation therein

Print is not simple. You have all-in-one print houses which supply their own paper and you have to pay for the paper and printing with them, and then you have print houses that will contract you capacity and you can supply the paper if you choose, which means you can also negotiate direct with paper suppliers if you are planning to print millions of pages to distribute across the company and the market. What's the better option? An all-in-one or buying the paper and contracting capacity? Or does it depend on the region? For example, a North American operation with five regions that restricts it's analysis to the eight largest paper providers and (all-in-one) print houses could easily have thirty-three different options to consider based upon regional warehouses and available printing locations as defined by the following table and laid out in the diagram that follows.

Supplier	Northeast	Northwest	Central	Southeast	Southwest
[Paper] (1) Perfect Paper	X		X	X	
[Print] (2) Print-tastic!	X	X	X	X	X
[Both] (3) Pristine Paper Printing	X	X	X		X
[Paper] (4) Leaflets and Logistics	X	X	X		
[Print] (5) Print and Post	X	X	X	X	X
[Print] (6) Stamp and Ship	X	X	X	X	X
[Both] (7) Mundus Media	X		X		X
[Both] (8) Planetary Printers	X	X	X	X	X



Alternative market solutions & offerings

As we have previously indicated, not only are there different thicknesses and weights to consider when selecting paper, there are different levels of brightness, gloss, and bindings. All of these factors create options and have an impact on cost and quality. Multiple suppliers present multiple options. For example, when all of the proposals are collected, there might be 540 different papers to choose from, all of which can be obtained at a different price from each other and each supplier.

Weight	Brightness	Coating	Size
10 lb	20%	None	8.5 x 11
15 lb	30%	Dull	8.5 x 14
20 lb	50%	Gloss	11 x 17
25 lb	60%	Mirror-Gloss	
50 lb	80%	Matte	
60 lb	90%		

Capacity (& allocation) constraints

Every print house has a capacity, and this needs to be taken into account. Plus, even paper suppliers can only provide so many sheets of paper at any given time as they have a limited production capacity and existing contracts to honour.

Supplier (Paper / Print)	Northeast	Northwest	Central	Southeast	Southwest
Perfect Paper	20000/0		25000/0	10000/0	
Print-tastic!	0/10000	0/20000	0/30000	0/5000	0/10000
Pristine Paper Printing	10000/10000	5000/5000	20000/20000		10000/10000
Leaflets and Logistics	20000/0	20000/0	30000/0		
Print and Post	0/20000	0/10000	0/10000	0/10000	0/20000
Stamp and Ship	0/10000	0/50000	0/20000	0/50000	0/20000
Mundus Media	10000/10000		30000/20000		10000/20000
Planetary Printers	10000/10000	5000/5000	10000/10000	5000/5000	10000/10000

Capacity constraints need to be taken into account

Supply chain options

All one has to do is focus on the transportation options to see that there are a plethora of supply chain options. There are three main options here alone. Vendor managed delivery (where the paper suppliers handle delivery to the print houses and the print houses handle delivery to your distribution centers). 3PL managed delivery (where the 3PLs manage shipments from paper suppliers to print houses and print houses to distribution centers). Or buyer managed delivery where you contract with the appropriate carriers directly. Even if one limits the transportation considerations to the three largest 3PLs and the two national carriers the organization already has relationships with, that's still 162 lanes from six paper suppliers to twenty seven print houses with 6 different transportation options each and, assuming deliveries need to be made to one DC per region (for delivery to HQ, retail establishments, and the mailroom), that's 135 more lanes from print-shops to DCs with 6 different transportation options each for a total of 297 lanes with 6 different transportation options per lane.

Pricing models

Paper supplies will give you discounts at multiple volume levels, print houses that contract capacity will give you discounts at multiple volume levels, and so will all-in-one print houses.

US \$	Paper	(Ream / Over x)		Print	(Ream / Over x)	
Supplier	Bid 1	Bid 2	Bid 3	Bid 1	Bid 2	Bid 3
Perfect Paper	1.5/1	1.35/20000	1.2/20000			
<i>Print-tastic!</i>				0.5/1	0.35/20000	0.2/40000
Pristine Paper Printing	1.6/1	1.4/10000	1.15/20000	0.4/15000	0.3/25000	0.2/50000
Leaflets and Logistics	1.65/1	1.4/10000	1.15/20000			
<i>Print and Post</i>				0.55/1	0.30/20000	0.25/40000
<i>Stamp and Ship</i>				0.4/15000	0.3/25000	0.2/50000
Mundus Media	1.4/15000	1.3/25000	1.2/50000	0.5/1	0.35/20000	0.2/40000
Planetary Printers	1.5/10000	1.4/20000	1.2/40000	0.4/15000	0.3/25000	0.2/50000

US \$	Paper & Print	(Ream / Over x)	
Supplier	Disc. 1	Disc. 2	Disc. 3
Perfect Paper			
<i>Print-tastic!</i>			
Pristine Paper Printing	15%/20000	25%/50000	
Leaflets and Logistics			
<i>Print and Post</i>			
<i>Stamp and Ship</i>			
Mundus Media	5%/ 5000	15%/ 15000	25%/ 50000
Planetary Printers	5%/ 10000	10%/ 20000	15%/ 30000

Conditional Options

As highlighted in the table above, some all-in-one print-shops give an additional discount on the paper and printing if a certain volume level is reached. In addition, some paper suppliers or print houses will only give a bigger than usual discount if a certain paper stock is used, especially if they are trying to clear out excess volume. Similarly, some transportation suppliers will only give their volume discounts if they get certain lanes (where their trucks are considerably under-utilized).

Now imagine trying to lay out all of the options on the diagram we presented when we mapped the supply base. A diagram which was already so crowded that we could barely see what was going on and you can see why even traditionally simple categories are quite complex and why there is a lot more savings to be had when you stop treating them as an inconsequential indirect category that you just hand over to a GPO.

Sourcing Platforms Have Evolved, Has Yours?

As per our introduction, the implementation of first generation sourcing platforms allowed Sourcing organizations to graduate to multi-stage RFX processes with more than three suppliers, auctions for widely available commodities and services, and, in some cases, simple optimization models for high dollar categories such as transportation, packaging, and CPG. However, this is not nearly enough to support today's complex tenders.

To handle today's complex tenders, your platform needs, at a minimum, the following capabilities:

- **Powerful User-Defined Data Collection, Enrichment, & Normalization**
- **Extensive Data Analysis, Reporting, & Visualization**
- **Built-In Collaboration**
- **True Cost Modeling**
- **Customizable Workflow and Templates**

We will discuss why in the paragraphs that follow and help you understand what these requirements entail by comparing these features to the features typically found in first generation e-Sourcing platforms.

... first generation sourcing platforms are not nearly powerful enough to support today's complex tenders.

Powerful User-Defined Data Collection, Enrichment, & Normalization vs. Limited Form-Based Data Collection

First generation sourcing platforms had fairly rigid models with fixed data collection forms and formats with the most powerful data collection method being export to a fixed Excel format spreadsheet and import from a fixed Excel format spreadsheet. Data normalization typically had to take place in an external spreadsheet and then data had to be cut and paste into the exported spreadsheet for import. Enrichment and auto-import of related data wasn't even a twinkle in the mind's eye of the first generation platform developers.

However, complex tenders typically require multiple rounds of internal data collection from stakeholders and external data collection from potential suppliers and partners. The data required goes well beyond quotes and includes surveys, past performance evaluations, third party evaluations and risk assessments, product and service requirements, proposals and alternate proposals, terms and conditions, and so on. All of this data needs to be collected in a manner that allows for apples-to-apples comparison, update, normalization, and enrichment and re-use in future data collection efforts, models, and analyses. A modern platform will have much, if not all, of this capability.

Extensive Data Analysis, Reporting, & Visualization vs. Built in Static Reports with limited 2-D graphing options

First generation platforms came with a fixed set of rigid reports and if the report you wanted wasn't there, tough luck for you. Some vendors would extend their report libraries for bigger clients for a fee, but all these clients received was another rigid report which did not evolve as their needs changed. There were no templates, no report builders, and the most advanced data visualizations were classic bar charts and pie graphs.

However, today's complex tenders require a lot more than side-by-side total bid comparisons. They require the ability to analyze bids on multiple quantitative and qualitative factors -- such as delivery time, risk rating, and satisfaction score; weight bids across a variety of these factors; analyze cost components to find the cost drivers; create visualizations that capture the tradeoffs for buyers and stakeholders to make informed decisions; and so on. This cannot be done without powerful, flexible, and extensible analysis, reporting, and visualization capabilities that include next generation analytics, report builders, and visualization libraries.

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... as tenders became more complex, the inadequacies of the first generation platform quickly became apparent.

Built-In Collaboration vs. Single User Sourcing Events

When the first sourcing platforms hit the market, they were typically event-based and typically each event, or each data element in an event, belonged to one user. In order for multiple people to work on an event, corporate “virtual” user logins had to be shared (which every security expert will tell you is a big no-no), which created as many problems as the sourcing platform was supposed to solve (as multiple users would accidentally override each other’s work and it was hard, and sometimes impossible, to copy an event or data from one user to another, etc.) With strict processes and careful orchestration, the solution would work for tenders of limited complexity, barely.

However, as tenders became more complex, the inadequacies of the first generation platform quickly became apparent. Complex tenders require the creation and support of a multi-disciplinary project team, who are typically not only scattered throughout the organization, but across the organization’s geography as well which makes online collaboration a necessity, especially if people are in two diametrically opposed time zones. There needs to be collaborative document creation, forums, message archival, integrated chat and web meetings, and all of this needs to be archived. This is due to the depth and breadth of (qualification) requirements, data collection, and analysis that is required ... sometimes even before a project can begin.

True Cost Modeling vs. Limited Approximations

First generation platforms typically only supported models of moderate complexity. A unit cost, a freight cost, a modifier that allowed a user to define one product as more or less costly due to usage (or waste) considerations, differences in tariffs (due to different supplier locales), or expected (amortized) switching costs. The better platforms supported tiered pricing, but generally not true formula-based discounts, and definitely not breakdown pricing for the modifiers.

In order to continue to identify significant savings in categories that have been repeatedly sourced in today’s (hyper) inflationary climate, the organization has to be able to do true cost modeling that will allow advanced analysis and strategic sourcing optimization to find new savings opportunities that could not be identified in first generation models that limited cost breakdowns to bids, transportation costs, and discounts. Today’s cost, and should-cost, models need to be more than just cost approximation breakdowns -- they need to be exact calculations, and if the true cost is dependent on a formula (such as fuel cost + 20% overhead

One has to remember that every category is different, and thus every category requires a different strategy

for energy, rate + 27% employer contributions and taxes for labour, or an additional discount of 5% if the steel buy portion of the transformer buy exceeds 10M dollars), then that formula needs to be captured. Plus, the ability to analyze multiple buyer and supplier conceived options can allow for the identification of previously unforeseen opportunities when a supplier is able to capitalize on a strength or a buyer on a newly emerged market opportunity.

Customizable Workflow and Templates vs. Fixed Workflows and no Templates

Not only did first generation platforms have limited data collection capability, but they had a rather fixed and rigid workflow. First the user defined the lots and line items, and then the main price components, the discount tiers, and any constraints the model could support (which were typically limited to capacity, allocation, and award splits). Then the model was run, and the solution, if a solution was found, was analyzed. Typically there was no solution after the first run of the model and a lot of manual pouring through the data was required to find typos or constraints that couldn't be satisfied. Furthermore, once the initial scenario finally solved, the first solution wasn't one the organization was willing to accept and the user had to add or remove constraints in a haphazard fashion until an acceptable solution was found.

One has to remember that every category is different, and thus every category requires a different strategy and a different workflow to support the strategy. A one-size fits all approach doesn't work anymore. Even though you still need a single platform to make sure all data, and decisions, are centralized, that platform must support the creation of sourcing projects that can have custom defined workflows and categories for each sourcing project (which also define standard constraints and scenario variations to be run). Depending on the results of the category analysis and the Kraljic Portfolio, or similar, analysis, the strategy could be a multi-round RFX followed by (face-to-face) negotiations, an RFI, followed by an e-Auction (that may be pre-populated with starting bids from an RFQ), an RFX qualification round followed by strategic sourcing decision optimization backed negotiations, and so on. The qualification round may be a single RFI that simply collects an expression of intent to supply, or a multi round supplier and product qualification. Depending on the complexity of the category, a single RFP/RFQ might suffice or multiple rounds may be required if custom solutions are being solicited. And so on. Each and every project will be different.

Sourced Categories Have Evolved, Has Your Platform Kept Up?

Even if one were to assume that the organization's tender requirements were not very complex, and that one could get an answer that was "good enough" with a first generation sourcing platform through really good cost approximations, detailed offline analysis, and rigorous processes that ensured all stakeholders were consulted at the right time, is it safe to assume that the platform could even run a less sophisticated model for the category?

Today's Categories are Bigger

With more products (SKUs) that can meet the organization's need, more suppliers to supply those products, more FTL and LTL carriers and 3PLs to choose from, data gathering requirements and model size is much bigger than it was even last time the category was run. First generation optimization platforms that used first generation models on first generation solvers had a breaking point at which the model would not solve in a realistic timeframe, if the model even solved at all. Furthermore, first generation UIs were often defined with the implicit assumption that there would only be so many suppliers and products and are often unmanageable if there are too many suppliers or products.

Today's Options are More Plentiful

As per our discussion on complex tenders, more suppliers generally mean more options for fulfilling the organization's needs in terms of products, services, and bundles which can come with their own discounts and rebates, especially if categories are redefined. Since most first generation solutions have limited capabilities for building, or in some cases, altering built-in models, it will not always be possible to consider all of the options in a first generation model. And even when hacks and approximations can be found, the full extent of the options will generally not be captured, or considered, in first generation platforms.

Today's Categories Hide Savings

In the early days of e-RFx and e-Auction when supply exceeded demand and supplier's margins were fat, the threat of competition alone often generated more savings than an average organization expected there to be. Then when these savings went dry, first generation strategic sourcing decision optimization platforms that could capture product and logistics costs, discounts, a few constraints, and consider everything simultaneously often found even more savings, typically another 10% or more. Moreover, these savings tended to repeat the next event if more suppliers were added, more logistics options were considered (even if it

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... one might like to think a first generation platform will find these opportunities, the reality is it won't.

meant duplicating or triplicating the supplier so that 3PL quotes for freight could be used instead of supplier quotes), and a few new options were thrown into the mix.

But just because the first-generation platform found savings, that doesn't mean that the organization wasn't leaving money on the table. There are some categories like services, advertising, and even legal -- the sacred cows of many organizations -- that regularly hide 20%, 30%, and even 40% savings opportunities. While one might like to think a first generation platform will find these opportunities, the reality is it won't. In the case of services, it only materializes when an organization can consider multiple suppliers at multiple levels with limited service options and capacity constraints. The model is exponential orders of magnitude larger than flat models where only national service providers are considered and many first generation platforms can't even handle the amount of data required, if they can even collect all of the data.

Similarly, savings in advertising come from breaking down creative from non-creative services, then breaking out services from consumables (such as paper, media, etc.), and then sourcing and managing each sub-spend accordingly. And legal spend can be greatly reduced by standardizing not only agreements for standard services, but bids as well. Employment contracts, real estate purchases, and e-Discovery services, for example, are all fairly standard and commoditized these days and only a platform that allows service breakdown across departments and geographies will be able to capture, and identify, the best bids.

Summary

In our last paper on *Optimization: What Comes Next?* freely available for download through the link at www.tradeextensions.com/optimization-what-comes-next/, we said that today most sourcing analysts use spend and market analysis to analyze a category and then decide the sourcing approach to take and that this was wrong. We made it clear that optimization was not a strategy, it is the plan and should be used in every category analysis to help the analyst determine what the best approach for sourcing the category is as it is the best way to identify the full extent of the savings and value generation hidden within the category.

The reason we said optimization is the plan is because a modern Sourcing platform powered by optimization is the only tool that can properly model and support complex tenders and identify the value hiding in today's global supply chains.

However, this is only the case if the optimization backed Sourcing platform can accurately capture the real world scenario. This requires a modern platform that supports the five key capabilities described in this paper. Otherwise, the tool will not be flexible enough to help you discover the full extent of the opportunities hidden in your supply chain.

References

¹Kraljic, P.

Purchasing Must Become Supply Management

Harvard Business Review, Volume 61, Issue 5, pp 109-117, 1983

²Cox, A.

Sourcing Portfolio Analysis

Earlsgate Press, ISBN 978-1-873439-54-8, 2014

³Schuh, C; Kromoser, R; Strohmer, M.F; Perez, R. R; Triplat, A.

The Purchasing Chessboard: 64 Methods to Reduce Costs and Increase Value with Suppliers

Springer Verlag, 2nd Ed, ISBN 978-1-461422-20-4, 2012

⁴Lamoureux, M.G.

The Strategic Sourcing Lifecycle: A Brief Introduction

TESS Academy, 2015

⁵Zurich

The Weakest Link, UK Plc's Supply Chain

Zurich, July 2012

http://www.zurich.co.uk/internet/home/sitecollectiondocuments/business/largebusinesses/zurich_supplychainreport_july2012.pdf



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