

Optimization Backed Sourcing Platform... Or Bust

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This is the first part of a five part series that revises and ties together key ideas outlined last year on Sourcing Innovation that were spread across multiple posts. Regular readers will be familiar with much of the content, but the integrated perspective should help to cement the ideas in regular readers and new readers alike.

This post is largely based on [It's Not a Suite, It's Just Sourcing, Part 1](#).

For a while now, Sourcing Innovation has been effectively saying that if you do not have an optimization-backed sourcing platform, you're not ready for the modern era of complex sourcing. And SI means it. This isn't to say that you can't get value from a modern suite that covers the end-to-end sourcing lifecycle, or that you can't get value from a first generation optimization platform, because you can – especially if you haven't had these solutions before. However, every last-generation solution has a limit on the value it can deliver. Some of these limits are low, and some of these limits are quite high – so high, in fact, that it can take years, and sometimes a decade or more, for the average organization to hit the ceiling. But once that ceiling is hit, the organization has to know what comes next to continue extracting value from the supply chain. So this is a post about what comes next for the average organization and, most importantly, what comes now for the leaders who have already realized that their first generation optimization modules and / or first generation suites are failing to deliver the value they need today.

The reality is that, these days, Sourcing needs to be much more strategic and is thus not an activity that can be accomplished as a discrete set of loosely connected tasks where you can pick and choose what you need ahead of time. Strategic Sourcing is an activity that needs to both analyze the need and the market situation and respond to the stimuli the market is providing in a dynamic fashion.

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This can not be done according to a pre-planned, limited set of tasks. To clarify, let's take a hypothetical, but realistic situation. Let's say that the company is a high-tech retailer selling custom assembled high-end development boxes to software development and engineering shops. This company will not be buying pre-configured Dell and HP machines, targeted to the consumer market, but custom configured boxes using high end motherboards, which may be manufactured by the same production houses that manufacture boards for companies like Dell and HP, high end Intel and AMD processors, ultra-fast high density DRAM, high-end solid state drives, mid-tower cases with extra fans, etc.

This might sound like a relatively easy sourcing event as there are a relatively small number of acceptable motherboard manufacturers, DRAM manufacturers, drive manufacturers, case manufacturers, and only two chip manufacturers, but even $5 * 5 * 5 * 5 * 2 = 1350$ and each manufacturer might have over a dozen acceptable options – and it's hard to say up front how many of these combinations are not only viable, but acceptable (as even though it might be feasible to connect the components, there might be driver or other issues that affect compatibility or performance). In addition, new manufacturers arise once in a while and old manufacturers fail or sell out. Last year's customer spend pattern is not the same as the spend pattern two years ago, and until year-over-year is analyzed for multiple years, you have no idea of the average deviation.

In other words:

- you may or may not need a pre-event spend analysis to determine potential volume leverage points, the opportunities with supply base consolidation, and expected savings potential, all depending on when the last event was run, how much data you have, and current market data points
- you may or may not need optimization; if you restrict the bid to pre-configured systems, because business is up 40% and you need a quick event to get through the rest of the year with plans to do a more detailed analysis in 6 months, you can probably get away with a weighted auction, but if bid options are open, you will probably need optimization to handle all the data
- you may or may not need multiple RFX rounds, so you may or may not need a supplier portal to handle the communication necessary for a multi-round event

And this is all fairly obvious, so you are probably thinking

- if I need the analysis, I invoke the spend analysis module, get my insights, and plan my strategy
- then I invoke the RFX module to create the RFX
- if I am doing multiple rounds – I have to configure the Supplier Portal instead of just sending out the Excel spreadsheets (which I would import on return otherwise)
- when the data is retrieved, validated and cleaned up then I either
 - push it into the auction for a weighted auction or
 - push it into the optimization module for optimization-backed analysis
- when I have my winners, I push the data into the contract management module for draft contract creation

... easy-peasy, right?

Wrong!

This is the real world, and it never works this way, as we will discuss in our next post.

This was originally posted on [Sourcing Innovation](#) on February 8, 2016.

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This is the second part of a five part series that revises and ties together key ideas outlined last year on Sourcing Innovation across multiple posts. Regular readers will be familiar with much of the content, but the integrated perspective should help to cement the ideas in regular readers and new readers alike.

This post is largely based on It's Not a Suite, It's Just Sourcing, Part 2.

In our last post we made the rather bold claim, which is probably going to irk a lot of vendors, that it's NOT a Suite, It's JUST Sourcing. SI likes vendors that are trying to build solutions to solve their customers' pain points, and has chronicled the efforts of many over the years, and thus isn't doing this series to be irksome. SI is doing this series because it's not 2005 anymore, it's 2015 and the nature of, and need for, Sourcing has changed as global trade has become more complicated, supply chains have lengthened, risks have increased, and sourcing has become more complex. Today, sourcing absolutely has to be more strategic and Suite Sourcing is NOT Strategic Sourcing. In today's post, we're going to begin to clarify why.

Our last post outlined a hypothetical, but realistic, example in the high-tech space, discussing a typical, primary, sourcing event for a company that assembled custom-built high-end workstations for software developers and engineers. We started by discussing the primary factors that the Sourcing analyst was likely to identify as well as two strategies the analyst was likely to take. This led to a perceived event progression and a plan that looked like it was easily executable in you average modular sourcing suite. We did this to make it clear why many companies fall for the fallacy that you can attack sourcing in a step-wise fashion using a modular suite, and, as a result, why some vendors still believe that a modular suite is the way to go. The reality is that, at a quick glance, it does look like this is the right approach and that there is no reason to question it – even though there is a big reason. Namely, the approach is wrong.

The reason being is that, in reality, the event is not going to go as planned.

Specifically, it will not be an analysis followed by an RFP followed by a single auction / optimization analysis followed by a push into the contract management system. One or more, with emphasis on the more, of the following will happen:

- the RFX will come back and some of the requested bid fields will be empty because the supplier is no longer producing the product
- the RFX will come back and there will be new products that the buyer did not know about with new bids (and new interdependencies to be mapped)
- the logistics carriers will come back with quotes much higher than expected and/or a logistics carrier or 3PL will withdraw (due to overcommitments) and lanes will vanish
- stakeholders or key customers will change requirements post RFX issue and you will have to go back and ask for prices on next generation products, which might still be in final design stages
- the baseline optimization will come back with completely unexpected results and once the analyst uses spend analysis to dive in, the analyst will find a number of outliers in the incumbent bid and realize that she has to go back and ask for verified or corrected data
- the auction will end with three suppliers almost equal on baseline scoring and extensive analysis will be needed to determine which supplier gets 50%, which supplier gets 30%, and which supplier gets 20% in the 50/30/20 split dictated by the stakeholders to minimize risk

In these situations, respectively

- the analyst will have to identify a larger supply base and send the RFX to more suppliers
- the analyst will have to research the new products and decide whether to accept them or not and then, possibly, ask the supply base to bid on (comparable) products in a revised RFX

- the analyst will have to invite more carriers to bid and consider alternate lanes, possibly from secondary (air)ports to secondary (air)ports
- the analyst will have to create revised specs and go back to the supply base for additional prices and options
- the analyst will have to backtrack to the spend analysis step on the submitted data, followed by a request for bid verification and a repeat of the optimization on revised data
- the analyst will have to go back to the analysis step to identify which bid components were strongest for each supplier and then compare that to existing supplier scorecards (to determine likelihood of on-time delivery, quality guarantees, price consistency, etc.)

In other words, the event is not going to go as planned and it's not going to be a sequential progression from analysis to RFX to auction/optimization to award. Moreover, most events are going to see multiple occurrences of the above hiccups and require an almost random workflow that uses all of the sourcing capabilities of a suite multiple times.

Moreover, the transitions back and forth will need to be seamless. If an analyst has to push data out of the optimization "module" into the "analysis" module for detailed data and outlier analysis, then push the data, with insights, back into the "RFX" module for revised RFX data collection, and then push the revised RFP data back into the "Optimization" module for revised analysis only to find out that the lane cost is coming out higher than expected in the preferred award, indicating that there is still an additional opportunity if logistics costs can be lowered, then this "modular" workflow quickly becomes a nightmare.

Plus, in this situation, the analyst will have to do an in-depth analysis of the logistics cost to determine if costs can be lowered simply by inviting more carriers to bid, analyzing primary and secondary lanes, or doing something progressive like using the organization's sourcing expertise to help a provider lower their overhead with better insurance rates, communication plans, and office & computer supplies from the organization's GPO contract. Then, after this analysis has been done, which will likely take the form of multiple what-if optimizations using various cost models, the analyst will have to go back to the RFP, issue the revised RFP with more options to current and new suppliers, push the data back into the optimization module and continue.

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In a modern sourcing project, one cannot separate data collection from cost modelling from analysis from bidding from optimization – it is all one integrated sourcing process that lathers, rinses, and repeats until the solution is found and the event is done. And any provider that thinks you can separate pieces out and take a modular, piecemeal approach and build up to a suite, one module at a time, is still living in 2005 and should be approached with caution. It's not a suite, it's just sourcing. And, as indicated in our previous post, and as will be discussed in more detail in a future post, it's not optimization, it's strategic sourcing.

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This is the third part of a five part series that revises and ties together key ideas outlined last year on Sourcing Innovation across multiple posts. Regular readers will be familiar with much of the content, but the integrated perspective should help to cement the ideas in regular readers and new readers alike.

This post is largely based on It's Not Optimization, It's Strategic Sourcing.

In our last two posts we outlined a complex scenario that could not be accomplished with a traditional sourcing suite that was just a loosely coupled set of modules that did basic sourcing tasks and provided many reasons why the power of the suite did not even come close. Simply put, we have not only reached the point where it is impossible to define a sourcing event of any magnitude without hitting at least a few of the nine dimensions of complexity but we have also reached the point where the data collection, manipulation, and analysis requirements are so intensive that only a sourcing solution built on, and backed by, a true optimization engine is going to be able to handle the data, manipulation, and analysis required.

Now, we're not saying that the right strategy for every event is optimization, but we are saying, as per SI's already classic paper on Optimization, What Comes Next, that we have reached the point where you cannot determine the right strategy without optimization to at least build and solve a baseline cost model given current market prices and expected bidder increases or decreases from the last event to determine whether or not optimization might be helpful.

For example, while a 3% savings potential might be enough for a (strategic) sourcing auction or optimization-based multi-round RFX, a 3% drop in expected product cost does not necessarily imply a 3% savings potential. If that drop is from remote suppliers that ship down lanes where costs have risen 10% and shipping is 30% of the overall total cost model, there is likely no savings potential. The right strategy is likely a renegotiation with the incumbent for a contract extension or a spot market buy. Similarly a 2% drop in price combined with a 5% drop in logistics costs could equate to a 3.5% savings potential under the right circumstances, which is substantial on a 50M+ category. ▶

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Plus, with bundled discounts, volume discounts from suppliers and carriers that take effect at different price points, different import and utilization costs for each supplier, and an ever increasing plethora of capacity constraints, mandatory award splits to minimize risk, secondary goals of minimal environmental impact, and so on, it's often impossible to determine what the lowest cost solution is and, thus, if the cost increase associated with assigning a (greater percentage of the) award to a preferred supplier seen as being more valuable in the long term is actually worth it.

In many situations, there's just no way to do a strategic analysis and justify a strategic decision without a basic level of true mathematical optimization capability that can take all costs and constraints into account. Spreadsheets were breaking under the strain of basic sourcing requirements years ago. Now these sheets are just shards of glass – which will eventually cut you if repeatedly handled.

That's why you have to not only graduate from a suite to an integrated sourcing platform but, when you do so, select one with integrated optimization capability. While you won't need to use optimization in every event, you'll always have the option and always be able to use the advanced mathematical capability to determine both the savings potential and, sometimes, even the odds of success (as you will be able to iterate through dozens of what-if scenarios based upon expected supplier and carrier bids and proposals).

But while we have clarified why traditional suites, built from a set of loosely integrated modules, are not modern sourcing platforms ready for complex sourcing, we have not clarified why many of these suites cannot be upgraded to sourcing platforms. We will address this in our next post.

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This is the fourth part of a five part series that revises and ties together key ideas outlined last year on Sourcing Innovation across multiple posts. Regular readers will be familiar with much of the content, but the integrated perspective should help to cement the ideas in regular readers and new readers alike.

This post is largely based on Why Your First Generation Sourcing Platform Is Not Ready For Modern Sourcing.

As per our earlier posts, first generation sourcing platforms, circa 2005, were a miracle cure for the average Sourcing organization that was drowning in data and demands to save, save, save without enough time or resources to tackle even a fraction of the categories that needed to be under management.

For example:

- First generation Spend Analysis systems helped the Sourcing team identify the largest spend categories and the largest organizational suppliers, which were prime candidates for the first strategic sourcing events put through the new sourcing platform.
- First generation RFX systems helped the Sourcing team capture more data from more suppliers than ever before and not only better qualify potential suppliers but collect more detailed bid breakdowns for analysis.
- First generation e-Auction systems helped the Sourcing team put non-strategic high-dollar categories with very little complexity out to bid for quick savings success.
- And, most importantly, first generation decision optimization systems allowed the sourcing team to build realistic cost models, capture constraints, and devise realistic award scenarios that identified real savings.

In other words, many organizations that acquired these suites and applied them successfully saw year-after-year returns of 10%+ on the spend brought under management. And a few are even seeing some savings today, but just like the second auction saw little savings and ▶

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the third auction saw a price increase, the year-over-year return is dropping. Why? Because while these first generation platforms were infinitely more powerful than anything that had come before, they weren't designed to capture the full extent of complexity in an average category – complexity that has been considerably increased since the early days of sourcing due to increased outsourcing, increased globalization, increased regulation, and a constantly evolving global marketplace. Back in the day, no one would have thought that even a simple paper tender (that's right, paper) would encapsulate all nine dimensions of sourcing complexity.

Not only is there just no way to do a strategic analysis and justify a strategic decision without a basic level of true mathematical optimization capability that can take all costs and constraints into account, but there is also no way in a standard suite to:

- **Collect the full breadth of supplier responses** as the limited form-based data collection in first generation solutions don't allow for expressive responses, bids, or varying from a rigid, inefficient, yes/no fixed cost template
- **Create dynamic drill-down graphical reports** as the built-in static reports with limited, if any, 2-d graphing options don't allow for modern graphical analytics
- **Conduct multi-user sourcing events** as they were set up for non-collaborative single-user sourcing events and not modern, complex, categories that require entire teams
- **Create accurate cost models** as the limited cost models, with little or no formula support, are too primitive for many of today's complex categories
- **Support dynamic workflows** that adapt to the categories and the organizational needs, as everything has to fit the rigid workflow or the suite cannot be used

A modern sourcing platform is needed, and by now it should be quite clear that it should be optimization-backed, but there is still one common argument that is used by many vendors to try and skirt the issue, and while it's not valid, it can sure be convincing when spoken by a charming and charismatic salesmen – and this is the topic of the fifth and final post in this series.

This was originally posted on [Sourcing Innovation](#) on February 11, 2016.

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This is the fifth and final part of a five part series that revises and ties together key ideas outlined last year on Sourcing Innovation across multiple posts. Regular readers will be familiar with much of the content, but the integrated perspective should help to cement the ideas in regular readers and new readers alike.

This post is largely based on It is NOT Direct or Indirect – It is Strategic and Complexity!.

In this series we've been discussing the need for a modern optimization-backed sourcing platform by first explaining how it's not a suite, it's just sourcing, then explaining how it's not sourcing, but strategic sourcing, and, finally, that it's not just strategic sourcing but optimization-backed strategic sourcing in order to master the complexities of the modern global supply chain.

We've also spent a significant amount of time going into detail as to why first generation suites, which were typically nothing more than a loosely coupled set of pseudo-related modules organized around a theme, did not make a modern platform, and certainly not one that could be called a modern optimization-backed sourcing platform for strategic sourcing of complex categories across modern global supply chains.

But, as per our last post, there is still one more argument against the need for a modern optimization-backed sourcing platform that we need to address. Specifically, the argument that only custom-manufactured direct categories are complex enough to need a complex solution and that the average CPG or indirect category won't benefit from an overkill solution.

This argument is flawed. And rather than try to attack it, we're going to get right to the point. The right way to source a category has absolutely nothing to do with whether it is a direct category for your organization or an indirect category for your business. Nor does it have anything to do with whether or not it is a category regularly sourced by your GPO or whether or not the GPO has it under contract.

Remember, as per our last post, even the categories that were traditionally seen as the simplest indirect categories are sometimes actually among the most complex “direct” categories that the organization possesses! In SI’s paper on Complex Sourcing: Are You Ready, we elucidate how even a category such as paper is among the most complex categories that the organization can source.

Secondly, what is indirect for your organization is direct for another organization, and a supplier in particular. Calling it indirect only masks the fact that, at some point in the supply chain it is a complex direct category and if your supplier, or GPO, is not approaching it correctly, a significant amount of money is being left on the table.

While there are some that would very much like to forget that before the introduction of e-Negotiation (e-RFx and e-Auctions), a number of “indirect” categories used to cost organizations millions – such as tires in automotive, lights in aviation and printer ink in back offices everywhere – this is not the right thing to do. We have to remember that these organizations never understood how much these “secondary” categories were really costing them and that, sometimes, 100% profit margins were the norm, because they often did not have the ability to go out to market like we do today.

Thirdly, while a product organization might see services as indirect as such a category would be labelled as non-core, and, similarly, while a service (or financial) organization might see a product category as indirect as it too would be labelled non-core, if such service, or product, is essential for the organization to deliver the product, or services, the organization profits on to the end consumer, how can such a service, or product, really be non-core?

For example, if successfully selling that next generation cellphone requires augmenting the supplier’s design team with a new design team that can enhance usability above the competitor’s product without sacrificing a low-price point or quality, that is a critical service and should not be treated as a secondary outsourced indirect category. Similarly, if delivery of your big data analytics services requires a specific high-end laptop configuration that can not be easily met by all providers, and a sub-par configuration would result in delays or service degradations, this is not a category that can be thrown over the wall to a GPO either.

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In other words, direct or indirect has no correlation to the complexity of a category or its strategic importance to the business and, thus, should not be used to determine the appropriate sourcing strategy or sourcing platform. The right way to initially classify a category is to use a basic measure that captures its strategic importance and its complexity and any category with a measure that exceeds a certain threshold must be strategically sourced. The rest can be sourced using simple spot-buys or other traditional methods provided that they are not too complex, or too strategic in someone's view, for these traditional methods.

And, as such, there is no argument not to use an optimization-backed sourcing platform on every single category that the organization needs to source.

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