Sourcing Innovation
Next Generation Supply Management Defined

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# How Optimization-Backed Sourcing Platforms Save Our Souls . . . Or At Least Our Backsides

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**We all know the importance of a good Sourcing Platform to power our Procurement Value Engine. But even after multiple posts (on Sourcing Innovation) and (white) papers on the topic, one still might not be convinced that an optimization-backed sourcing platform is truly necessary. If the organization is still getting reasonably good results from its (last-generation) sourcing suite, has a large number of templates, workflows, and processes configured for its key/strategic categories, and has a consultancy/service provider that handles its tougher events (and they use an optimization-powered platform for those few really complex or high-dollar categories), it might think that everything is fine. And the reality is that everything is fine ... until it isn't!**

*...the reality is that everything is fine ... until it isn't!*

One has to understand that disruptions don't only occur in the supply chain after the contract is signed, they occur during the sourcing process, and a significant disruption can result in an evergreen contract renewing at above market prices (which is bad) or a contract expiring and the organization left with insufficient inventory and no source of supply in a tight market (which is worse). And even if the disruption doesn't result in an evergreen renewal or a (costly) inventory stock-out (that shuts down a production line), it can still result in increased costs, increased risks, and missed opportunities. Thus, it's important that sourcing events go as smoothly as product procurement, but this doesn't always happen in the real world. Sometimes suppliers change the rules, and sometimes the rules change.

# What Happens When Suppliers Change the Rules?

You've done your homework, researched the suppliers, researched the supply chain, mapped out lanes, invited the appropriate third party logistics firms (and carriers), worked out the cost model, created the multi-round RFX templates, and even pre-defined the best bid lots. You're ready to go. But then...

## *Factory Locations Change*

You've spent countless hours modeling the supply chain, the potential lanes, the different transportation options, and the breakdown cost models with the relevant surcharges and tariffs, and then a supplier fails and another, after a major fire, shifts it's bids to its factories in different countries. Your potential supply chain model is ruined. Lanes are missing. The cost model is invalid. And you might not even have a single carrier to service the new factory locations.

## *3PLs / Carriers Change the Lanes*

Sometimes the suppliers honour their bids, but the carriers indicate at the last minute that the preferred lanes and / or (intermodal) modes are not available, and then all of the delivery times and costs are wrong. Now you not only need to update the model, the costs, and maybe invite more carriers but you also need to go back to suppliers and get them to commit to shorter production timeframes (as you can't predict demand more than 60 days out, but your 25 day shipping time just bumped up to 35 days), which might incur a higher cost, a loss of goodwill, or suppliers dropping out entirely. Again, the model is ruined.

*You've done your homework and you're ready to go. But then...*

## *New Products / Prices Offered at the 11th Hour*

You've got the initial quotes. You've made the initial cuts. You're going back with the final RFQ before the analysis to get final, hopefully lower, quotes and all of a sudden a couple of suppliers propose a new product or service to meet your needs, at a significantly lower price and/or a significantly faster delivery time, and with one or more value-add options that you hadn't considered before. Now what do you do? The current cost model doesn't take this into account, and you don't have any way to compare the oranges to the apples you have, and you don't know if you should go back to the market and ask the other suppliers for comparable bids, or even for new options.

## What Happens When The Rules Change?

Not only have you researched the suppliers, sketched the supply chain, mapped out lanes, invited the appropriate third party logistics firms (and carriers), worked out the cost model, created the multi-round RFX templates, and even pre-defined the best bid lots, but you've also hardened the requirements, navigated regulatory requirements, and organized all of your documentary ducks in a row. But then ...

### *Stakeholders Change Requirements*

You've spent weeks finalizing the (new) product design with R&D, briefed and re-briefed all of the suppliers to make sure they clearly understand the requirements, received sign off and have detailed cost model bids and then Marketing comes back and says that the product must be 10% smaller, 20% lighter, use a faster processor, or have 25% better battery life because a competitor came out with a better product, user testing isn't going according to plan, or Sales went off and made an unreasonable commitment. Now what do you do?

*...you've hardened the requirements and navigated regulatory requirements. But then...*

### *The C-Suite Changes Procurement Policies*

At any point in time the C-Suite, and, more specifically, the shareholder-directed Board can decide that there can be no more sourcing from a particular country due to political unrest or extreme economic instability, the organization will no longer sign contracts in a particular currency due to unfavorable fluctuations, or expensive supply chain insurance must be obtained to cover all sourcing from a region or supplier due to perceived high risk. This can eliminate a supplier, a carrier, a group of suppliers, a group of carriers, and even an entire product category.

### *Governments change regulations*

All of a sudden there are export quotas on the product you need, triple tariffs on that rare earth metal, bans on exports to one of your primary markets, and a slew of new in-advance documentary requirements that you never expected. You're stopped dead in your tracks. What do you do?

# What Happens When the Market Flips?

Not only have you researched the suppliers, sketched the supply chain, mapped out lanes, invited the appropriate third party logistics firms (and carriers), worked out the cost model, created the multi-round RFX templates, pre-defined the best lots, hardened the requirements, navigated regulatory requirements, and organized all of your documentary ducks in a row, but you also verified the market with marketing and customer research and kept up on your competitive intelligence.  But then...

### *Boycotts Against A Product You're Sourcing*

All of a sudden,  consumers start a boycott against a component of your product , or maybe you have just discovered that the primary producers have been violating worker or human rights, or perhaps you have to change supply for one of a myriad of other reasons. What do you do?  Obviously the product needs to be redesigned or the component substituted with an alternative more palatable to you, and the market, and the supplier needs to be replaced. All of a sudden your world, and your virtual supply chain, is in chaos.

*...you've verified the market and kept up on your competitive intelligence. But then...*

### *A Competitor Innovation Eliminates Demand*

Everyone wants your product until a new innovation makes it obsolete.  What happens when your competitor, out of the blue, releases a new product from a well hidden research project and all of a sudden no one wants your product anymore?

# Back to Square One with Traditional Sourcing

If you are using a traditional sourcing platform and suppliers change the rules, the rules are changed on you, or the market just flips, it's usually back to square one.  New suppliers have to be identified and vetted, new products identified and appraised, new routes identified, new cost models developed, and new options run by stakeholders.

In a traditional sourcing platform one has to, at a minimum:

- **create new RFIs**
  to qualify new suppliers, and re-qualify existing suppliers (as there is no way to update the existing RFI once it has been completed)

- **create new RFPs**
  to collect data on the new products, services, options, and associated prices (as there is no way to update the existing RFP once it has been completed)
- **identify new lanes**
  and collect data on those lanes from the suppliers, carriers, and 3PLs (travel distance, delivery time, base cost, surcharges, and schedules)
- **perform a new analysis**
  which, in a current generation platform, requires exporting the appropriate data in a normalized form to a spreadsheet for comparison
- **create a new bid/auction event**
  with new lots, maximum bids, start and end times, and delivery timeframes since the existing bid/auction will have to be completely abandoned
- **define new contract templates**
  as the existing ones will obviously have to be re-done from scratch

In other words, every scenario change – be it supplier driven, market driven, or consumer driven – requires the senior buyer to effectively start over. Not an ideal scenario. Not an ideal scenario at all. But there is an alternative.

## Keep On Truckin' with Optimization Backed Sourcing

However, if you are using an optimization-backed sourcing platform, your sourcing world can be flipped upside down, turned inside out, and inverted again and again and you won't miss a beat. These platforms, designed to support dynamic, complex, cost models, dozens of what-if scenarios, and ever changing real-world requirements, are made for change.

*If you are using a traditional sourcing platform and things dramatically change, it's usually back to square one*

A lane disappears, simply delete the lane from the model, add the replacement lane, import costs from a point-based supplier bid or a market data feed, and keep on truckin'. A supplier changes locations, simply delete those quotes from the RFP, add the new factory locations, edit and resend the RFP to the supplier who can simply quote against the new factory, retrieve the response and only import the new bids, the cost model auto-updates, and the what-if scenario can be re-run to see how the new bid affects the potential award scenario.

As new products are proposed, or as stakeholder requirements change and new products are required, they can be added to the model and mapped to buyer needs, along with conversion factors if the demand is not met one to one, modification factors if the differences in quality would require more or less units to be purchased, and exclusion factors if replacing one product would require replacing another. (For example, if the standard cup is replaced, then the standard lid would need to be replaced, in an equal quantity, as well.)

If procurement policy changes, embargos, or risk models make sourcing from certain locales untenable, the model can be updated to exclude the appropriate locales and all products, suppliers, and / or carriers that have to be partially, or fully, excluded will be with that one simple geographic rule. Also, if a procurement policy mandates a minimum award to a minority supplier, sourcing from a preferred geography, or another specific business constraint requirement, that can easily be modeled and enforced with a single rule in the optimization model.

Optimization models are powerful. They not only identify the lowest cost award that is acceptable after taking all cost data and constraints into account, but they can also be changed on a moment's notice. Demands, sources of supply, costs, and constraints can be added and removed with ease and as long as the model is valid and can be satisfied, it will still be solved.

Moreover, every good optimization-backed sourcing platform allows scenarios to be copied and modified in what-if configurations that can allow Procurement to prepare for the situation where a carrier, supplier, or product may become unavailable if intelligence suggests the opportunity or the sourcing project, by its nature, will take a long time.

*...if you want to source with certainty, get an optimization-backed sourcing platform...*

Optimization-backed sourcing platforms are designed to deal with the real-world of complex sourcing in today's global supply chain arena, and they will save your soul, or at least your backside. No matter what roadblocks are put in your way, you will never be stopped dead in your tracks. So if you want to source with certainty, get an optimization-backed sourcing platform today.