OLIVER WYMAN

PROCUREMENT DURING TRADE WARS

COMPETITIVE ADVANTAGE IN TIMES OF TROUBLE

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EXECUTIVE SUMMARY

We are entering times of trouble. More than ever before, a key success factor will be building up competences and capabilities – supported by comprehensive analytical methods – to analyze your options faster and better than your competition. Doing a network modeling exercise every few years is no longer enough. Neither is risk management by virtue of having a “plan B” in the drawer that is neither integrated into the overall footprint nor frequently updated.

Best-practice companies use integrated optimization methods to run comprehensive scenario analysis the moment something happens in the market, giving them a huge competitive advantage. They suffer less and can more rapidly secure access to the best suppliers as market conditions change.

Oliver Wyman provides global leading experts and thought leaders on advanced sourcing, advanced network modeling, and the combination of both through cross-silo optimization. Together with the leading risk management capabilities of our sister company Marsh, Oliver Wyman offers proven strategic guidance and hands-on implementation, which can enable you to achieve additional savings and better weather in these times of trouble. Interested? Call or e-mail your local Oliver Wyman representative or the author directly.

1. INTRODUCTION

The world is once again facing a challenging, dangerous time for the economy. The US on one side and both China and the EU on the other seem to be steering full steam ahead into a serious trade war.

This article does not focus on who is „right“ or „wrong“. And while we surely could have an enthralling discussion about it, neither do we want to discuss the actors, their arguments, or timing from a game theory perspective. (Perhaps we will cover this in a later article.)

Instead, let’s talk directly about the implications for procurement of such uncertain times. Less from a “you need to move your suppliers from country X and find new suppliers in country Y” and more from a strategy and capability-oriented perspective.

2. WHAT PROCUREMENT NEEDS NOW MORE THAN EVER

In times like these, many procurement organizations will painfully recognize having not spent enough time and energy in recent years on:

Advanced RISK MANAGEMENT
faster detection and better response to risks across the value chain

Advanced ANALYTICS
dynamic re-optimization of entire value chains under changed environmental influences

3. ADVANCED ANALYTICS IN THE CONTEXT OF RAPIDLY CHANGING ENVIRONMENTAL IMPACTS ON THE SUPPLY CHAIN

Simply put, most companies, Fortune 500 and others, still use a modus operandi that was “good” a decade ago but that is insufficient these days:

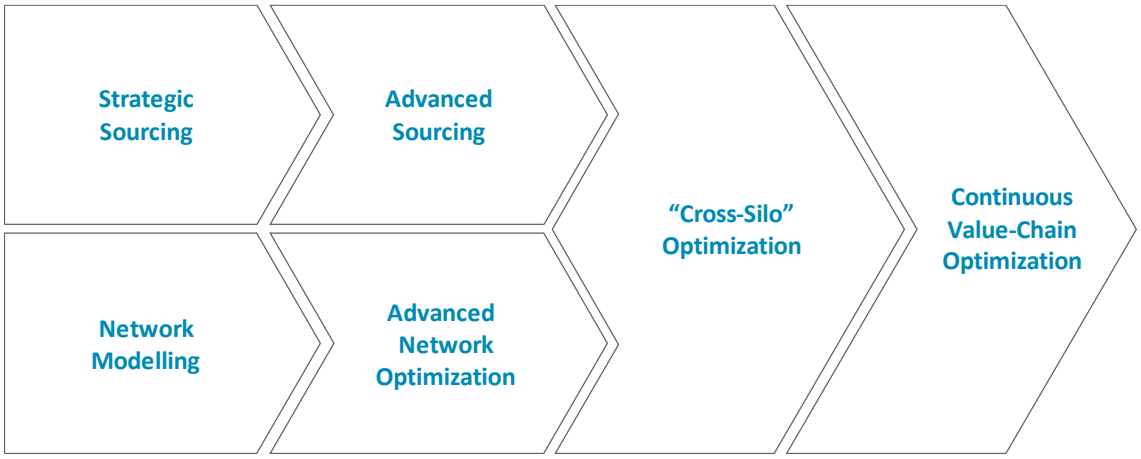
1. The supply chain periodically conducts (typically every few years) a comprehensive network analysis, defining the regional/global production and distribution network using comprehensive strategic optimization tools.
2. Based on this footprint, procurement then finds and manages the best suppliers to serve this setup.

There are three main issues here:

1. Network optimization and sourcing are happening sequentially. Which, even if both are being done at the highest level of excellence, is not logically an optimum setup.
2. Network modelling ends up using many “estimates” instead of hard market prices, with potentially significant misleading impacts.
3. Without proper tools, data, and teams in place, there is a significant lack of agility. It often takes months until business gets an answer when environmental factors like tolls or explicit or implicit sanctions change.

What is needed is a combination of advanced levers, enabled by advanced tools and handled by an experienced team, allowing better modelling to be done much faster. Depending on an organization’s specific needs and current maturity, the right analytics strategy for procurement and the supply chain can and will look very different, but usually it will follow a “path to excellence” like this:

Exhibit 1: xxx



The ultimate goal is to be able to flexibly adjust the entire value chain in the best possible way when influencing factors change.

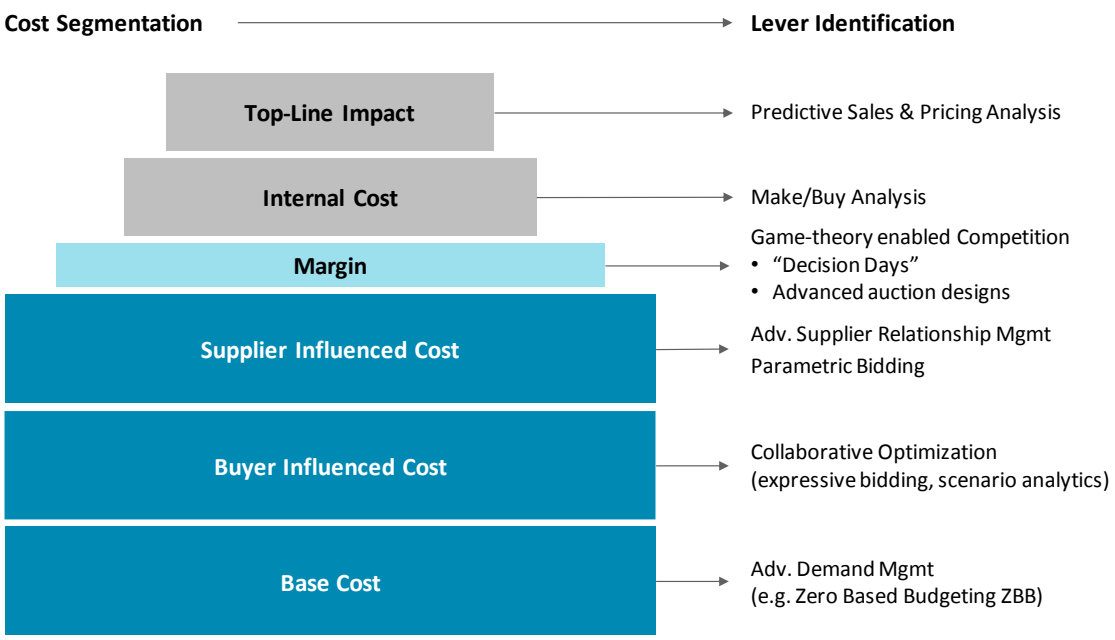
A leading Swedish furniture trading company once found a great term for this: “forest to customer” optimization. That is, one integrated optimization model that helps to decide where to cut the trees; where to saw and plane them; where to get the cardboard, screws and the Allen keys; how to bring it all together; and finally how to ship it economically and in the right quantity to meet ever-changing customer demands. Not that with such a system in place trade wars would be any less damaging for the economy, but certainly a company with optimized procurement will be much better positioned to flexibly respond than others.

4. ADVANCED SOURCING (IN A NUTSHELL)

1. Leverages advanced analytics to facilitate "collaborative optimization"
   - Deeper collaboration with suppliers throughout the sourcing process (expressive bidding, multi-round negotiation with advanced feedback provisioning)
   - Deeper collaboration with business partners in evaluating the cost implications of the numerous business constraints and preferences an organization typically has in place

2. Leverages advanced game theory; for example, using the "Oliver Wyman Decision Day" method to conduct parallel negotiations with multiple suppliers and mixed negotiation "SWAT" teams
3. Leverages advanced sourcing levers beyond just "tendering", for example, by using the "Oliver Wyman House of Savings Levers" for a structured, holistic identification of appropriate sourcing levers[1]

Exhibit 2: xxx



[1] Oliver Wyman plans to publish a more detailed explanation of advanced sourcing with practical examples and case studies in the near future – please stay tuned.

Leveraging advanced analytics in the form of comprehensive optimization tools is a key enabler and can be best explained with a simple exercise:

Let's assume we want five products or services in five plants or countries and have five suppliers giving us quotes for these 25 line items. In traditional sourcing, many buyers go either the "single sourcing" or the "cherry picking" route, both of which can be calculated easily in a spreadsheet. In advanced sourcing, however, you want to:

- Consider expressive bids from your suppliers, allowing them to offer not only alternative bids (which increases the number of bids to evaluate) but also volume or bundle discounts representing their specific economies or strategic intentions. As soon as suppliers offer such conditional discounts, it gets more difficult to figure out which ones are worth taking.

- Consider different award scenarios with different business preferences. What would be the best outcome if we have a maximum of three suppliers in total and not more than two per site? What if we relax or tighten such constraints a bit? What if we want to keep a minimum of 60 percent of the volume with our incumbents? Excel, often reported to be a sourcing manager's best friend, finds its limits here quickly.

The reason is inherent combinatorial complexity: To be certain of having identified the truly optimal award, while taking into consideration all expressive bids and articulated business preferences, you would need to:

- Check all possible bid options to determine whether they meet your preferences

- And from those which do, find the one with the lowest cost.

So the number of potential awards for the 5-5-5 setup would be 5*5*5 = 125? No. Even in this simple setup, you would have to compare:

$5^{5^5} = 298{,}023{,}223{,}876{,}953{,}125$ possible awards, to be certain that you have not overlooked something.

Fortunately, we don't all need to become operations research specialists. Mathematicians thankfully have developed algorithms for advanced sourcing that allow us to solve such optimization problems in a matter of seconds, so that we can focus on the business aspects of the process and the award strategy.

The author has helped dozens of leading companies over the past decade source >10B EUR of spend, achieving >1B EUR in implemented savings. If you are not using similar advanced analytics for your strategic sourcing yet, you should contact us and find out more about it.

5. ADVANCED NETWORK MODELING (IN A NUTSHELL)

In the past, many organizations would ask senior advisors to review the current production and/or distribution network every few years, taking labor cost, tolls and taxes, quality of infrastructure, availability of skilled workforce, and many other aspects into consideration.

These reviews reach their limits however when the complexity of the problem increases, either because of the number of items/sites/countries to be analyzed or simply the level of optimization achievable based on experience alone is insufficient.

In advanced network modeling, more comprehensive optimization tools can be introduced to calculate a greenfield footprint and then add numerous business preferences/constraints, analyze their consequences by looking at different scenarios, and balance out business preferences (e.g., service levels) with the costs they imply.

The weak point of such network modeling optimization, even if the best methods and tools are applied, is the underlying data: Without involving suppliers (and not only incumbents but all possible suppliers for the numerous possible setups), optimization will be based on estimates, not “hard” market prices. These estimates have a huge impact on the overall model outcome and can be wrong easily. To give an example: In Europe, many models as a rule of thumb use “1 EUR per km” for full truckload transportation. But a logistics sourcing project that looked at lanes from Northern Germany to Northern France and Benelux could only find a lowest hard market price of 1.26 EUR/km for France, while the figure was 0.76 EUR/km for Benelux. The reason was simple: Forwarders delivering flowers to Hamburg harbor were easily able to capture return loads, while Northern France has little industry and thus few backload opportunities.

6. “CROSS SILO” AND CONTINUOUS VALUE CHAIN OPTIMIZATION

A few leading organizations have extended the scope of their optimization to bridge traditional silos, optimizing **the network and supply footprint in parallel.**

There is a reason why only a handful of organizations have been able to achieve this level of excellence so far: the inherent complexity of such approaches is mind-boggling.

Remember the simple 5^{5^5} example we looked at earlier? Now imagine the complexity a company faces when there are:

- Hundreds, sometimes thousands of line items
- Dozens, sometimes hundreds of suppliers
- Every new bid offering a change to the network (e.g., a supplier offering a different warehouse location or production considers moving a production line from plant A to B) creates hundreds if not thousands of additional line items that suppliers must price.

The good news: While still being extremely demanding for the team and the tools to be used, it has demonstrated been that it can be done and can generate even in well-managed organizations an additional **~10% implementable cost reduction.**

Properly set up, with a comprehensive buildup of competencies not only to conduct such analyses once but to make required data available "at the touch of a button," these analytical optimization tools allow a company to re-optimize rapidly if input factors change, e.g.:

- Increasing volatility of customer demand
- Products with shrinking lifecycles/frequent introduction of new products
- Environmental risks (earthquakes, floods, etc.)
- Macroeconomic changes, such as the trade wars we are currently facing!

7. ADVANCED RISK MANAGEMENT

President Eisenhower is known for having managed his priorities with a simple 2/2 matrix, based on issue urgency and priority. Most buyers will agree that risk management is a priority, but in daily business it is too often not seen as urgent, and thus doesn't get sufficient attention. And indeed, as long as nothing happens, risk management means spending time and energy with no immediate return.

Most category managers (hopefully) have a "plan B" in the drawer in case something happens with their key suppliers. The key success factor in a fast-changing environment like we are seeing at present is having a plan and being agile in implementing it. That means being faster to recognize that there is an issue on the horizon, faster to identify the appropriate measures to deal with it, and faster in actually implementing these measures, thus securing access to the right suppliers before your competitors wake up.

All of this requires two primary capabilities:

- Highly automated information collection, evaluation, and messaging to the right audience in your organization to ensure the right information gets out quickly – but does not lead to information overload. While there are some interesting artificial intelligence (AI) tools emerging, they are a) still so expensive that they often lack a good business case and b) not reliable enough to deal with this challenge just as a technical problem. A comprehensive strategic identification and segmentation of your risks is a crucial prerequisite to focus attention on areas where it is needed most.

- Highly efficient, analytics-powered scenario analysis, using advanced sourcing, advanced network modeling, or ideally cross-silo optimization not just once every few years but on a permanent, ongoing basis, allowing decision makers to analyze immediately when something is changing on the inside or the outside of the organization, in terms of:

  - How it impacts the current setup

  - What alternatives can be implemented quickly

  - Which alternatives are more “robust” than others in case more changes are expected

Advanced risk management requires comprehensive market research, internal and external risk identification, process management, and robust analytical skills – all capabilities that Oliver Wyman, together with its sister company Marsh (one of the leading risk management firms in the world), can combine for your benefit like no other.

8. CONCLUSION & “WHY OLIVER WYMAN”

Trade wars rarely create any winners, while impacting almost everyone. But those who can flexibly adjust their value chain faster and better than their competition will get through these troubled times with less damage and a clear competitive advantage.

Advanced sourcing, advanced network modeling, advanced risk management: What they all have in common are comprehensive analytical tools that can be leveraged to rapidly and thoroughly understand an organization’s options.

A CEO of a Fortune 500 company recently said in a discussion with us:

> *"We don't need to have an immediate answer on every single idea our people in production, marketing or supply chain are having during daily business. But if something impacts our business substantially, like the current trade war discussions,* ***I better know about my best options faster than my competitors*** *to secure my access to the suppliers I really need."*

This is a great example of why these initiatives are highly strategic and way beyond simple "IT" projects. Companies need to put their best efforts into determining:

- Where risk is highest
- What tools and methods to choose
- How to conduct an initial implementation to generate the best results
- How to organize know-how transfer and develop an operating model that will enable frequent/continuous leverage of these methods

For all of this, you want a trusted advisor at your side – a leading provider of strategic procurement and supply chain consulting to top firms globally. Someone with senior experts that have "been there" and "done that". This is what Oliver Wyman in strategy consulting and March in risk management stand for.

To learn more about advanced procurement in general and advanced sourcing and risk management in particular, please contact your local Oliver Wyman representative or the author directly.

ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting. With offices in 50+ cities across nearly 30 countries, Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. The firm has more than 4,700 professionals around the world who help clients optimize their business, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities. Oliver Wyman is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC].

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