

How to See Around Corners When Others Can't

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Use Decision Support to make fast, informed business decisions with confidence

Have you ever had to make a multi-million dollar business decision? Did you rely solely on your gut feel? Probably not. You probably used detailed analysis to make a fact-based decision.

People use analysis to challenge gut-based decisions that might harm our company's business when the facts suggested otherwise. I'm not suggesting there is no room for intuition. But rather, good facts combined with good intuition lead to the best outcomes.

So, how do you make better, faster supply management decisions and feel confident about them? There are a few capabilities you probably need.

1. You need the ability to analyze data beyond what is in the rigid ERP or e-procurement transaction record. To do this, you need access to the underlying data in a structured format, so you can search, manipulate and report on it.
2. You might want to "go off road" exploring the data at any point in the process. Having a flexible, iterative, and non-rigid architecture allows this.
3. You should want easier ways to explore the data. Accessing specialized natural interfaces and dashboards built for strategic users, not clerical administrators, can help.
4. You may need to evaluate "what if" scenario trade-offs quickly and accurately. Bid optimization technology can help by analyzing the relationship between risk, price and performance.

I don't have the time to discuss all four of the above in detail, so let me focus on bid optimization technology.

Bid Optimization Explained

The ability to analyze all aspects of a deal is critical in taking advantage of market conditions. For example, a majority incumbent supplier might have invested in fuel efficient, alternative

specifications that can meet the buyer's requirements — while a minority incumbent may have lost a large customer giving him more capacity to meet the buyer's volume. An evaluation based primarily on costs may ignore these supplier realities.

Optimization, part of a bigger science called Operations Research, makes this analysis possible.

Operations Research, in a nutshell, is the discipline of applying advanced analytics to help make better decisions. Optimization, in turn, utilizes mathematical algorithms to rapidly solve a business problem by evaluating “all possible outcomes” (or many outcomes) and selecting those ones that yield the best solution.

When applied to supply chain operations, optimization helps the sourcing professional simultaneously evaluate thousands of different procurement inputs. This evaluation can take into consideration the global market, specific current supply chain conditions, and individual supplier conditions, and offers solutions that address the buyer's [and supplier's] goals in the best possible way.

Optimization goes far beyond simple spreadsheet-like comparisons. It helps ensure that no possible scenario or solution is overlooked and no money is “left on the table.” Although it may sound intensive, with the correct application of technology it can eliminate weeks of tedious side-by-side evaluations that attempt to simultaneously analyze the inputs.

Optimization is often limited by the “human factor.” According to different studies, a person can attend to 6 to 18 factors of evaluation simultaneously. However, as you know, any company-wide supply chain initiative involves thousands of factors and parameters, each affecting the bottom line.

Optimization-driven technology allows the procurement manager to evaluate the “new best state” of their supply chain and to react promptly. This could be as simple as relaying some or all key factors that affect a decision on suppliers.

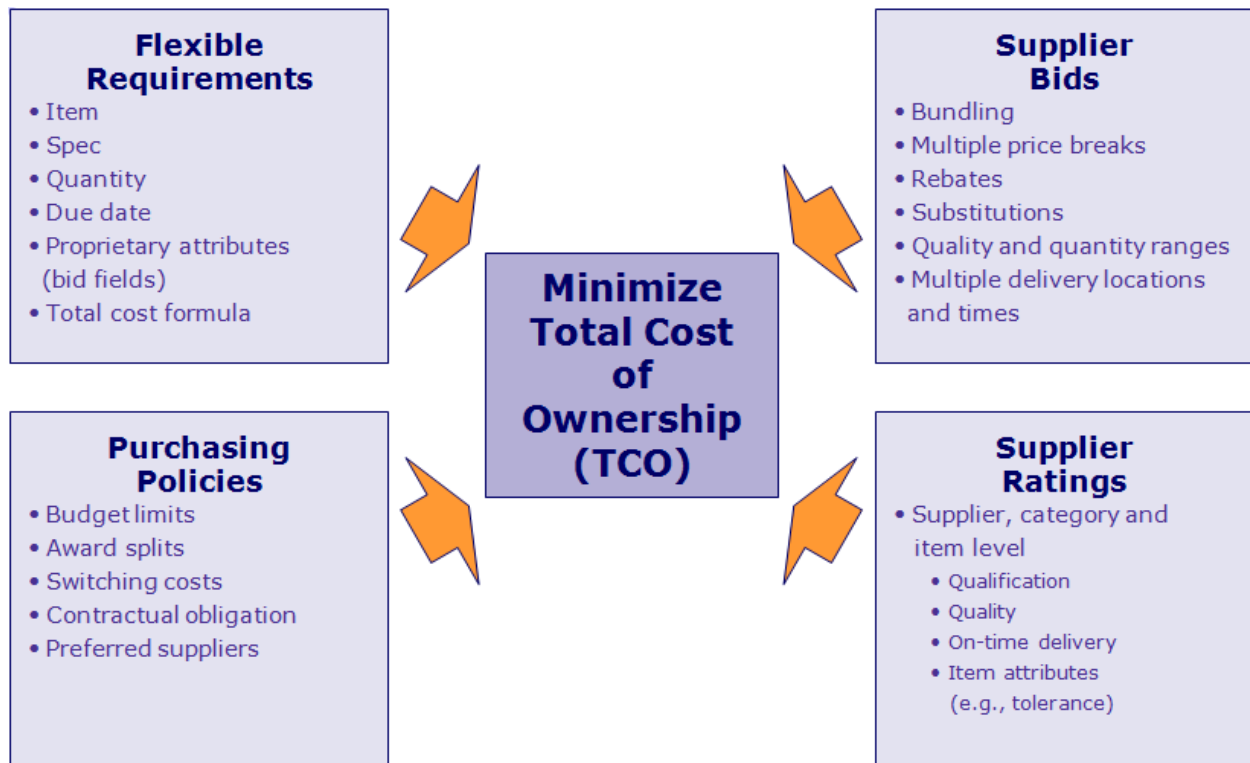


Figure 1: Optimization Inputs and Objectives

By allowing suppliers to compete on more than just cost, you empower them to be creative. Once the suppliers understand the buyer's goals, they can offer alternatives based on their own competitive advantages, and avoid being squeezed on just price.

Offers based on these competitive advantages might include:

- Alternative Specifications
- Extended Warranty Terms
- Discounts on Packaging
- Rebates for Bulk Orders

Depending on how extensive or creative the buyer wants to get, the goals of a new relationship might also involve overhauling the supply chain risk structure. This might include, for example, contemplating a switch from a single source supplier to a multi-source scenario or a local to a global operation.

Knowing your true total cost, beyond just price, when creating an agreement is critical.

There are three critical benefits that Optimization can impart, particularly in an uncertain economic environment and recovery:

- Rapid response to the changing market conditions, including the ability to renegotiate existing deals and quickly achieve better total costs;
- Rapid evaluation of suppliers' capacity, including the ability to rapidly add more suppliers to the operation;
- Ability to maintain and strengthen supplier relationships.

By making the negotiation about more than price, optimization allows the suppliers to be creative and offer more complex deals, compete on different direct and indirect cost factors, and not feel pressured to simply reduce the price.

Optimization Bid Analysis In Action

Here is an interesting customer example to demonstrate the power of e-sourcing with optimization bid analysis for decision support.

A Fortune 500 R&D company needed to source research supplies across the globe. They spend close to \$100 million on these supplies.

This company had an e-sourcing solution in place, but by their admission, that solution could not handle the volume of items or complexity of the proposed bidding strategy. So, they used a commercial bid optimization approach.

Complex Requirements

The company had four objectives:

- Optimize total cost
- Maximize stakeholder satisfaction
- Provide a good supplier experience

- Build internal e-sourcing expertise for high value, high risk categories

Demand came from facilities in two continents. A dozen suppliers participated. Ten were incumbents. The top supplier represented a majority of spend. 20,000 line items were bid on.

Heavy Need for Bid Optimization

The bid optimization requirements were heavy. 150 “what if” scenarios were analyzed. The team created fifty constraints per scenario. Example constraints included awarding incumbents at the line item; creating alternate specification awards (i.e., awarding suppliers who provided an alternate to the designated item spec to find out how much they could save by going off spec); and awarding dis-advantaged small business (i.e., MWBE requirements) at the 5%, 7%, 10%, and 15% amounts.

According to the customer, if they tried this with their e-sourcing solution, they would have needed to run fifty events to get through all 20,000 items.

Great Results

This e-sourcing strategy took three months to execute. The projected savings were 10%, almost \$10 million. In addition, the company improved contract terms with incumbents.