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Next Generation Supply Management Defined

The Dangers of e-Auctions

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e-Auctions, the traditional entry point into "strategic" sourcing, were a saving grace for early Procurement organizations that were traditionally spending considerably more than market average and had few sources of supply. Early auctions, especially when demand exceeded supply, typically produced savings in the double digit percentages. They were great, at least until they failed, but when the categories were properly selected, they were almost always a success.

But the success was always limited, and the worst part is that the organization never knew that the auction was often costing them more in value than the dollars they were saving. Despite many vendor claims to the contrary, e-Auctions

- don't capture lowest cost,
- don't insure quality, and
- don't split awards in an optimal way.

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e-Auctions Don't Capture the Lowest Cost

e-Auctions don't capture tiered discounts, freight discounts, or multi-lot discounts. The lowest cost is not just the lowest bid, it's the lowest overall cost. Consider an e-Auction with a lot for 10,000 widgets, 20,000 sprockets, and 15,000 gears, six suppliers, and associated quality scores for each product from each supplier. If the suppliers have the associated quality rankings on a scale of 1 to 10:

Quality	Supplier A	Supplier B	Supplier C	Supplier D	Supplier E	Supplier F
Widgets	7.50	9.00	7.75	7.00	8.25	7.00
Sprockets	8.50	8.00	8.25	7.50	7.75	7.00
Gears	8.00	7.00	8.75	8.00	7.50	7.00

And the bids per unit are the following:

Pricing	Supplier A	Supplier B	Supplier C	Supplier D	Supplier E	Supplier F
Widgets	0.250	0.300	0.275	0.245	0.265	0.240
Sprockets	0.350	0.350	0.375	0.335	0.365	0.330
Gears	0.500	0.450	0.475	0.415	0.465	0.420

A lot based e-auction that sought the lowest cost would select supplier F, with a total cost of $15,300, but a quality rating of only 7, as per the following result table:

Lot X	Supplier A	Supplier B	Supplier C	Supplier D	Supplier E	Supplier F
Total Price	17000	16750	17375	15825	16925	15300
Quality	8.11	7.89	8.31	7.56	7.78	7.00

But the lowest cost is actually to split the award between Suppliers F and D, with F getting widgets and sprockets and D getting gears, because, if you look at the bids, F has the lowest bid for widgets and sprockets and D has the lowest price for gears.

The lowest cost is not just the lowest bid, it's the lowest overall cost.

e-Auctions Don't Insure Quality

Sometimes, when sourcing, quality, either measured as expected defect rate or user rating, must maintain a minimum standard. Poor quality can increase cost and result in more defects and the net result will be that the consumer perception of your business, and its brand, decreases. An auction only selects the supplier with the lowest cost, and a weighted auction only selects the supplier with the lowest weighting, which, in many cases, is just going to be a combination of cost and quality. This might insure sufficient quality, but if one poor quality supplier bids extra low, it might not.

For example, let's say that, for the above reasons, that the organization requires an average quality weighting, on a unit basis, of 8. If the organization receives the quotes in the last section, if the auction is unweighted, Supplier F will be selected with an average weighting of 7. If the auction is weighted 50% on cost, 50% on quality, normalized against the highest cost and highest quality, then Supplier C is selected with an average quality of 8.31. But the supplier with the lowest cost that meets the quality metric is actually supplier A, as per the table below.

Lot X	Supplier A	Supplier B	Supplier C	Supplier D	Supplier E	Supplier F
Total Price	17000	16750	17375	15825	16925	15300
Quality	8.11	7.89	8.31	7.56	7.78	7.00
50/50	1.95	1.91	2.00	1.82	1.91	1.72

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e-Auctions Don't Split Awards in an Optimal Way

If, for example a business has a business rule that awards must be split between two geographically distinct suppliers such that each gets at least 30% of the business, then the award split can be anywhere between 30/70 and 50/50. In an auction platform, you have to pick a split because these platforms don't do dynamic calculations - the weightings are all formula based. Since spreadsheets are cumbersome, and auctions based on spreadsheets are just as cumbersome, it is likely that the organization will just pick a single split, such as 50/50.

In this scenario, the optimal award that satisfies the qualitative requirement would be suppliers A and B, which exactly meets the weighted quality requirement at 16,875 in our example above, as per the following calculations.

50/50	B	C	D	E	F
A	16875	17187.5	16412.5	16962.5	16150
	8.00	8.21	7.84	7.95	7.56
B		17062.5	16287.5	16837.5	16025
		8.10	7.73	7.84	7.45
C			16600	17150	16337.5
			7.94	8.05	7.66
D				16375	15562.5
				7.67	7.28
E					16112.5
					7.39

But if the organization had instead tried 60/40, it would have exceeded its quality requirement whilst lowing its cost to 16,755 with suppliers C and D, as follows.

60/40	B	C	D	E	F
A	16900	17150	16530	16970	16320
	8.02	8.19	7.89	7.98	7.67
B		17000	16380	16820	16170
		8.06	7.76	7.85	7.53
C			16755	17195	16545
			8.01	8.10	7.79
D				16265	15615
				7.65	7.34
E					16275
					7.47

Now, this is only a 1% savings, but if this is a monthly order, the effect is cumulative. Plus, this is obviously not the lowest cost award that could be made that met the minimal quality standard, but without an optimization-backed sourcing platform, you might never find the lowest cost. You will get close, but if you are talking about 1 Million units over a year, the optimal split could be 62.476% and 37.524% across two tier 2 suppliers.

Auctions based on spreadsheets are cumbersome and organizations will likely pick a single 50/50 split.

That's why when doing complex sourcing you should only use an optimization-backed sourcing platform, which supports optimization-backed RFQs and optimization-backed auctions.

Without a good optimization-backed sourcing platform, the organization will inevitably end up spending more, getting less quality, or both, because no e-Auction platform will ever net you the best award split, no matter how many weightings or formulas it supports. Moreover, the suppliers selected might be in the same country when the organizational preference is to not only split awards geographically but across borders. This is something an e-Auction cannot do.

e-Auctions increase risk.

Most importantly, as should be clear by now, e-Auctions increase risk. As demonstrated in the previous sections, e-Auctions can result in:

- higher cost,
- lower quality, and
- sub-optimal award splits.

But these are not the only risks that auctions increase. Auctions also contribute to the following:

- market shrinkage,
- relationship souring, and
- supply chain disruptions.

e-Auctions Lead to Market Shrinkage

A lot of suppliers are opposed to e-Auctions, which they see as an attempt solely to decrease margins. Some have even banded together to try and ban auctions across entire industries. And sometimes it is the best suppliers that decline to participate in your auction. By running a (traditional) auction, you can lose the best suppliers you have access to before the first bid is even submitted.

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e-Auctions Lead to Relationship Souring

Even if the best supplier bids, if that supplier was the incumbent, and only won after significantly decreasing its bid (and its margin), the relationship, which might have been approaching a strategic one, is a lot less likely to be cordial and strategic going forward. If you are just going to treat the category, and the supplier, as tactical as if the supplier is easily replaceable, the supplier is not going to treat you as a customer of choice and you might see service levels, response times, and quality drop. But if you use an optimization-backed RFQ that can take all cost and non-cost factors into account, the supplier will understand that you are not just focused on price but on an overall evaluation of the product or service and the relationship and be more willing to lower costs if you can show that, overall, their costs are still to high when everything is taken into account.

e-Auctions Lead to Increased Disruption Risk

As a result of the reduced supply market, damaged relationships, and quality degradation, the organization puts itself at an increased risk of supply disruption. The level two suppliers it has to choose from are likely to be more financially at risk, have less market power with respect to obtaining their raw materials in times of shortages, and be less able to locate and arrange alternate shipments if there are transport or supply chain disruptions. If there are shortages or logistical problems, the organization, which may not be a customer of choice as a result of the "lowest cost" auction, is likely to be the customer that will obtain the worst service.

In summary, e-Auctions are nowhere close to the blessing they were made out to be, and standard e-Auctions should never be the sourcing tool of choice, even if the category is purely tactical and the strategy is to buy via the spot-market. They never give you the full picture, and that can be dangerous. So use an optimization-backed sourcing platform, which can apply true strategic sourcing decision optimization even during a real-time auction, and at least make sure the full picture, and all of the business constraints, are considered before an automatic award is made.

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