STRATEGIC PROCUREMENT SOLUTIONS

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New articles in this Edition:

- **"Lies, Darn Lies, and Statistics"** - by Mark Trowbridge, C.P.M.
- **"When Big Isn't Always Best"** - by Robert Dunn, M.B.A.

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Key Services include...

- **Staff Augmentation (Temporary, Project, Contingency Search)**
- **Online Supply Management Skills Diagnostics**
- **ProfessionalDevelopment Services (Training, Coaching, Org Development)**
- **Expertise in Strategic Sourcing of High ROI Spend Categories**
- **P2P Efficiency Enhancements, and**
- **Outsourcing Project Expertise (LCC & BPO).**
- **Supply Management Consulting Services**

Strategic Procurement Solutions' clients range from Fortune 100 to Russell 2000 in size; and include numerous Global enterprises as well. We also work with leading Public Sector supply chain groups.

"Lies, Darn Lies, and Statistics" - by Mark Trowbridge, C.P.M., Principal

In 1907, popular author Mark Twain quoted Benjamin Disraeli, and by doing so made this colorful phrase well-known (Twain actually used stronger language…). Talking about how statistics can be "beguiling", Twain observed that "**There are three types of lies, 'lies, d_ _n lies, and statistics**'" (full quote not given, to protect the innocence of our reading audience).

Are statistics a helpful tool for interpreting data? Of course. Statistics do play a very important part in Supply Management. Examples include:

- Proposal Evaluation Weights
- Supplier Performance Scorecards
- Calculation of Savings and Cost Increase Impacts
- Internal Customer and Supplier Surveys
- Discounts on Supplier Pricing

But miss-application of statistical principles can significantly skew the results, and perhaps lead an organization to make the wrong business decision.

This article will discuss several ways that procurement professionals can serve our employers through better application of statistical processes, and how to avoid common mistakes that are often made in statistical analysis:

- **Principle #1 – Always Remember the Basis for Calculation.** Very innocent mistakes can be made with statistics, by choosing the wrong factors in a calculation. An error often made by procurement personnel is to calculate the percentage difference between two supplier proposals, and assume that a percentage increase is the same as a percentage decrease.

  Example - Supplier A proposes $980,000 for a particular service. Supplier B proposes $720,000. **Question - How much of a percentage difference is this? *Answer – It depends.***

  Supplier A's proposal is $260,000 more expensive than Supplier B's offering. Percentage-wise, it is **36.1% more expensive** = [($980,000 - $720,000)/ $720,000].

  But looked at in reverse, Supplier B's proposal is $260,000 less expensive than Supplier A's offering. Same dollar differential, but percentage-wise it is **26.5% less expensive** = [($980,000 - $720,000)/ $980,000].

One project I was asked to perform for a Fortune 100 company was to review the savings claims of a well-known supply chain consulting firm they had hired earlier to "source" a multi-million dollar spend category. Through my research, we found that the consulting firm had calculated the percentage difference between an old price and the new price incorrectly, then applied that percentage to extrapolate the savings to a larger spend base….and they had claimed a huge savings for their client. Note that in our little example above, the simple switch of the denominator results in nearly 10% more differential being claimed. Until I was asked to review the calculations, the client hadn't caught this, and the large consulting firm had been rewarded based on the "savings" they achieved!

- **Principle #2 – Samplings Must be Sufficient in <u>Quantity</u>.** Ever get worried when the media forecasts which candidate will win a national election, based on a "survey" of just 500 potential voters? (author's note – yeah, me too). A little scary when, for example, there are more than 300 Million people in my country...

A foundational concept in statistics is that in order to be statistically-valid, a large sampling is almost always better than a small one. You cannot predict data trends accurately with an extremely small sampling.

For example, consider the size and makeup of a sourcing team when they "score" supplier proposals. If you have a six person team, don't let three people score one group of proposals, while the remaining three score another group. With that small of a population, individual differences will skew the results. Fred might be a member of Group A, but he sees the glass as half-full and consistently gives out high scores. Danielle might be a member of Group B, but she sees the glass as half empty. The right way to score the evaluations is to have all six persons score all the proposals. Otherwise, Fred and Danielle will skew the results.

- **Principle #2 – Samplings Must be Sufficient in <u>Quality</u>.** Anomalies in samplings can significantly skew the results. For example, consumer surveys conducted over the telephone around the dinner hour are skewed even before the phone is answered. This is because the nature of the sampling has already been altered by the methodology. In this case, the methodology eliminates people who don't have a land telephone, those having unlisted numbers, those who work evenings, or those who don't answer the phone during dinner hour, etc.

In the same way, "random samplings" in the supply-chain world must truly be "random". An example is TQM samplings of products. Too many supply management professionals have found that product quality can vary over time, production lot, manufacturer facility, etc. You can't just sample the first production run to catch quality errors. The samplings must be performed at random intervals throughout the range you wish to stabilize.

- **Principle #4 – Scoring Methods Must be Objective in <u>Design</u>.** My family's personal email service is provided by an ISP which occasionally puts surveys on their webpage. The political leanings of the ISP's management team are clear when they ask questions about a politician like this:

I feel that this politician is doing a (select one)

___ *a great job*

___ *a mediocre job*

___ *a poor job*

___ *a terrible job*

Note that the design of the survey forces participants to choose between four choices. But three of them give the "politician" a "mediocre" or worse rating. This faulty design "skews" the survey results to the negative.

This practice sometimes shows up in supplier scorecards or procurement customer surveys we see. One biased survey a global company's supply chain department sent out, actually included the following "loaded" question: "*Has your business operation ever been completely shut down by the Supply Management organization's failure to deliver products? (Yes/No)".* Needless to say, even if one department answered "yes", the percentages would still indicate an extremely-positive rating!

- **Principle #5 – Avoid Subjectivity in Rating Scales.** Some organizations rate supplier performance variables on a three point scale (Excellent, Average, Poor). Others use a five point scale (Very Good, Good, Average, Poor, Very Poor). But these don't give participants very many choices, and often result in less-than-meaningful statistics.

I personally like a ten point scale which allows the participant to award fractional scores (like "8.5"). That allows the person to carefully select a score which reflects their perception of the supplier's performance. And the group's "averages" provide much more detailed information, as they can see the difference between suppliers scoring 7.5 and 9.5 respectively (both of which would have received an "Excellent" score on a three point scale).

Another helpful technique is to provide the evaluators with written guidelines for scoring the performance variables. The guideline for a score between 4.0 and 6.0 might be *"This supplier is consistently able to deliver product on-time, but rarely able to deliver earlier than the purchase order delivery date".*

Statistics can have great meaning for an organization, but only when they illustrate accurate and meaningful information. **Please contact us at Info@StrategicProcurementSolutions.com if your organization needs assistance in building accurate measurements of your supply chain effectiveness.**

"When Big Isn't Always Best"...by Robert Dunn M.B.A., Principal

Choosing the right supplier is a process in which procurement professionals are supposed to be skilled. In Strategic Sourcing circles the "best practice" is to use a weighted scorecard to comprehensively evaluate each bidder's proposal. And that practice is a great one when performed correctly (and is one which our firm has utilized for the benefit of many clients over the years).

But providing "numerical" scoring of pre-defined categories sometimes misses the more-important question: **Is this the best supplier for our firm?**

Consider the following…there are many

scorecard elements that reward larger firms. For example:

- Financial Stability – Usually (unless there is something dramatically out of whack) a large publicly-traded firm usually wins over a smaller or privately-held firm, because their balance sheet contains more-impressive numbers. Evaluation Score = Typically Higher.

- Company Locations – A nationwide or international firm will again win here. But what if your organization only has regional locations? Evaluation Score = Again Typically Higher

- Product or Service Offerings – Multi-division firms will again win here, just because they offer other products or services. But does that actually benefit the buying organization, if they don't need those other products or services? Evaluation Score = Again Typically Higher

But when is "Big" not always "Best"? Lots of occasions come to mind...

<u>"Smaller" may be "Better" when…</u>

- **When you need a skilled SWAT team rather than an army.** In general, the larger the supplier the more their "top" personnel will be spread between different customers. *How many of us have come to realize that a mediocre account team can make an outstanding supplier perform like a dog?* Sometimes it is better to hire a SWAT team which is skilled, experienced, and willing to customize a great solution for their customer.

  For example, the Kennedy Group is renowned for providing up-to-date commentaries regarding events and leading trends in the consulting industry. In one of their reports sent to leading companies around the world, they stated that **"… superior value can be achieved through the use of skilled niche consultancies"** . Unless you actually need an army, a specialty consultancy's services may be much more productive and cost-effective for you.

- **When you need a "Customized" rather than a "Standard" solution.** The larger the provider, the less-inclined they tend to be regarding tailoring custom solutions. This is not always the case (thankfully, there are many excellent exceptions out there). If you need a non-standard solution, certainly consider the large category leaders. But you may want to also investigate some smaller firms which are known for innovation, creativity, and adaptability. For the "Big Guys", customizing a solution can be inefficient. But small firms can afford to customize for the right opportunity.

- **When "People" are more important than "Product".** Large firms tend to standardize their offerings (whether goods or services). That is important to their efficiency…as companies grow and their volumes increase, standardization reduces costs and allows for sufficient channel management. It's a natural and important part of getting big.

  But with <u>standardization</u> often comes <u>compartmentalization</u> of people. Ever wonder why the presentation team for the "Big Guys" is often five to nine people in size? It's because none of them can speak comprehensively to a service concept *("Now I'd like to introduce Sally. She is our expert* *on returns. She will address any questions related to returns of product. Sally, thank you for joining us today").*

And why is it that you never see most of those people again during the term of a contract? (Answer – Because they move from one sales presentation to another, showing potential customers how wonderful their firm's capabilities are).

If you want a supplier's top management talent to be involved in supporting you as a customer, then make sure the firm is sized so that your organization is a top priority for them.

- **When "Big" is trying to act "Small".** Usually being a large firm is advantageous. But sometimes, big firms try to act like small ones and it just doesn't work. A recent example involves lawsuits filed by multiple government procurement agencies against one of the leading global office supply companies (and also against the worldwide supply chain consultancy some of the agencies used). Claims against the office supply conglomerate included failure to honor contractual pricing and failure of minority-owned firms to play a legitimate role in processing orders on behalf of the large office supply firm (Google this yourself… you can guess the players).

Consider Strategic Procurement Solutions if your organization needs assistance in establishing supplier relationships that provide "exceptional" value.