REVERSE AUCTIONS 101:
What are the Purchase Price Savings That Can be Expected from Competitive Bidding?

An Executive Educational Briefing from
The Reverse Auction Research Center

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Overview

While reverse auctions can no doubt generate efficiencies in a number of ways, there is generally no greater motivator for an organization to engage in competitive bidding than to produce cost savings on the goods and/or services being acquired through the action. In this executive educational briefing, we look at how the power of competition and the ability to obtain real-time market pricing combine to produce the proven cost savings to be gained through the employment of reverse auctions. We also look at the issues involved in potential switching costs and the sustainability of the savings over time.

Introduction

How do reverse auctions actually work to produce purchase price savings? In many respects, competitive bidding due to the fact that it creates an “information disequilibrium,” which can “present a unique opportunity for the buyer to obtain lower prices from the suppliers than would otherwise be possible, and thus transfer profits from the supplier to the buyer” (Schrader, Schrader, & Eller, 2004, p. 64). Therefore, the ability of reverse auctions to produce significant cost savings for buying organizations is considerable. This has been proven in several recent studies in which purchasing research have found competitive bidding to produce cost savings of between 5-30% (Losch and Lambert, 2007) and 3-37% (Smart and Harrison, 2002). However, the generally accepted figures are that electronic reverse auctions (eRAs) can produce savings of between 10-40% (Tassabehji, 2010), with some first time reverse auction savings consistently being reported at 20% (Penfield, 2007).

Hawkins, Coyne and Hudgens (2009) have categorized the business case for employing eRAs to be “compelling,” citing the documented savings typically unearthed through the competition. Yet, some have questioned the accuracy of these savings rates when it comes to competitive bidding, believing that an average savings of 4% is a “more realistic” figure (Singer, et. al., 2009). However, a recently reported study from researchers affiliated with the United Nations, which was, in effect, almost a “meta-analysis” of reverse auctions across four different governmental entities in the U.S. and Europe across a high number of auction events, showed an average savings rate of 12.1% (Shalev & Asbornsen, 2010).
The Power of Competition

Competition is undoubtedly at the heart of what makes reverse auctions work to drive prices lower and produce tangible, hard dollar savings. According to Jap (2002), it is the competition between suppliers that “forms the bedrock of successful reverse auctions” (p. 515). However, Wagner and Schwab (2004) were even more direct, stating that: “One can summarize the findings of our study as ‘all that counts is competition’. The importance that a competitive situation exists can never be over-emphasized” (p. 22).

Recent research findings have highlighted the pivotal role that competition plays in producing reverse auction success. When dealing with either standardized or well-specified products, suppliers are more willing to compete, due to the fact that they have relative certainty as to precisely what they are bidding on and compete with confidence (Hawkins, Randall, and Whitman, 2009; Schoenherr and Mabert, 2007). According to Wheaton (2010): “In a reverse auction, the power of competitive bidding and price disclosure will drive the price lower. It is important to remember that in a reverse auction, it is the power of the market and competitive bidding, not the buyer bullying the vendor that drives the pricing lower. Vendors then respond to these market price signals and adjust their pricing lower accordingly” (n.p.).

“Real-time” Market Pricing

Prior academic research has confirmed that the dynamic pricing of reverse auctions improves the chances that for any given procurement scenario, the buyer and selling organizations will meet at a price point that reflects the true, “fair market value” for the item in question (Schoenherr and Mabert, 2007). And while we generally talk of the savings generated by reverse auctions, whether the price point arrived at through the eRA is compared to the last contracted price, a market survey, an independent estimate, or other basis, competitive bidding can produce “savings” in the form of lowering the amount by which a price increase would occur.
Take for instance the case of an organization expecting a twenty percent increase in their health insurance rates. If competitive bidding through an eRA can shave that increase down to ten percent, then the organization effectively “saved” the same amount through using a reverse auction. With the present – and likely future – uncertainties in commodity pricing, we may well see more cases where competitive bidding is employed simply to “stem the tide” and lower the amount of price increases. As Frisch (2004) observed, such instances mean that “due to market fluctuations, an effective reverse auction might actually result in a price increase” (p. 16). Certainly though, this will cause procurement executives and indeed, auction service providers, to have to reconsider exactly what is meant by “savings” and how such measures are calculated.

Yet, while there can be no doubt that buyers benefit from knowing that they are obtaining real-time market pricing on the goods and services they are procuring for their organization, suppliers can benefit greatly as well. This is for the fact that they can balance their internal managerial considerations with their ability to offer pricing that most benefits them at the time. For instance, if a company finds itself with excess inventory or manufacturing capacity on particular item(s), they could then offer a lower bid price in order to win competitions that would offer the supplier cost savings by lowering their carrying costs for items on hand, or alternatively, by filling idle production capabilities (Wyld and Settoon, 2003).

**Switching Costs and Savings**

Switching costs are certainly a consideration for both parties in reverse auctioning. Some researchers not only include the costs involved in actually switching from receiving goods or services from one vendor to another, taking a more expansive view to include the costs associated with searching for, qualifying, and training new competitive vendors to make a switch possible from an incumbent supplier (Leong, 2008). Wagner and Schwab (2004) focused on the issue of switching costs in their research, noting that “the lower the switching costs, the more a buyer can benefit from conducting a reverse auction because switching costs would be offset by the potential savings” (p. 16). Thus, they noted that reverse auctions would be more likely to be used in situations where the cost of switching vendors was low or negligible. They also found that suppliers were more likely to participate in reverse auctions in such situations, for if vendors perceived that there would be high switching costs for the buyer, they would not bid out of a belief that the buying organization would not ultimately switch to a new supplier due to the level of
switching costs involved versus the potential for “net” savings. Indeed, there is always a possibility that switching costs may reach a level where there is not an aggregate level of savings available that would have a reverse auction – or any e-procurement tool – make sense for a given procurement.

The Sustainability of Savings

Finally, one of the persistent questions surrounding the use of eRAs is the sustainability of such savings. Kumar and Chang (2007) argued that organizations would see their chances for significant savings drop when reverse auctions are repeated for the same products. However, the question becomes whether or not the important outcome is savings, or rather, is it to ensure that fair and open competition has taken place and that the buyer has succeeded in obtaining the best market price through the reverse auction competition?

Let’s take for example case where an organization achieved a 20% savings on a significant buy of copy paper. Now, is it likely to achieve the same level of savings on successive buys? That depends on both internal factors (the volume/aggregation level of the specific purchase) and external factors (the number of competing suppliers, developments in the wider market, immediate supply/demand considerations, etc.).

Empirical research has shown that while manufacturing firms using eRAs find – on average – 30% cost reductions in their initial reverse auctions for procurement spending, they can in fact replicate the savings in future years, seeing 10-15% savings in subsequent reverse actions (Carbone, 2008). This is an impressive statistic, as it proves the power of competition to produce continuing – not just one shot – savings across procurement spending, while also serving to counter one of the principal criticisms leveled at reverse auctions, namely “OK, you did it once, but can you do it again?”
References


About The Reverse Auction Research Center

These Executive Briefings are an educational outreach of The Reverse Auction Research Center (http://www.reverseauctionresearch.org).

The Reverse Auction Research Center, founded in 2010, was created to stimulate research in the use of reverse auctions in procurement, both in the private and public sectors. Since the founding of the Center, the institution has become a catalyst for reporting research findings and has served as a hub for news and resources on the use of reverse auctions.

The Center is under the direction of Dr. David C. Wyld, who is a Professor of Management at Southeastern Louisiana University. Dr Wyld is one of the world’s leading experts on reverse auctions, and under his leadership, the Center has produced findings that have been reported in major news stories, cited in academic journal articles, and served as a foundation for corporate and governmental entities to guide their decision-making on reverse auctions as part of their acquisition strategies. Dr. Wyld continues to lead the Center in exploring new applications of the reverse auction model beyond the procurement of commodities and simple services, with new efforts underway in the fields of energy and telecommunication resource allocations.

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