Executive decision-making traps and B2B online reverse auctions

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Abstract
Purpose – The purpose of the paper is to describe common decision-making traps experienced by senior managers when considering the use of online reverse auctions as a means for sourcing goods and services and to reduce purchase prices.
Design/methodology/approach – The paper examines the information evaluated and decision-making process used by senior managers in relation to common decision-making traps.
Findings – Decision-making traps are shown to lead to poor decisions related to the use of online reverse auctions.
Research limitations/implications – Exceptions to observations and findings presented may exist. The paper provides a foundation for further investigation on how strategic sourcing processes are evaluated and selected by senior managers.
Practical implications – The paper is useful for managers as a guideline to evaluate sourcing options and avoid errors that can interrupt supply, reduce product or service quality, extend lead times, increase costs, or impair buyer-seller relationships. It is helpful for academics to understand industrial decision-making processes regarding the evaluation of sourcing options.
Originality/value – The paper explains decision-making traps and provides the rationale for their existence in decisions to use online reverse auctions.

Keywords Auctions, Internet shopping, Purchasing, Sourcing

Paper type Research paper

Introduction

Business-to-business (B2B) online reverse auctions, also called "e-reverse auctions" or "e-auctions," have been used since 1995 to source production and non-production goods and services principally among *Fortune* 2,000 companies (Richards, 2000; Tully, 2000; Judge, 2001; Stein *et al.*, 2003). A recent study showed the amount of savings that can be achieved is much less than that claimed by "market makers" – the companies that provide reverse auction services (Emiliani and Stec, 2002; CLBM, 2004). Related studies have shown that the many benefits for buyers and sellers as claimed by the market makers are greatly overstated, if not false (Emiliani and Stec, 2004, 2005).

Previous studies have also shown that online reverse auctions damage supplier relationships and create distrust among incumbent suppliers (Jap, 2001; Kobe, 2001; Tulder and Mol, 2002; Beall *et al.*, 2003; MHEDA, 2004; B2BRC, 2003; Smart and Harrison, 2003; Smeltzer and Carr, 2003; Emiliani and Stec, 2004, 2005). A common result is poor sourcing decisions, higher costs, and less cooperative supplier relationships – the opposite of what senior managers hope to achieve from online reverse auctions (Emiliani, 2004; Emiliani and Stec, 2004, 2005).

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While the use of online reverse auctions has leveled off and may be decreasing (Butters and Bennett, 2002; Kisiel, 2002; Hannon, 2003; Ryan, 2003), the extent of its use by large industrial buyers since 1995 is remarkable given its many shortcomings. Despite this, senior managers of many *Fortune* 2,000 corporations continue to believe in the efficacy of online reverse auctions to reduce purchase prices (Judge, 2001; Reason, 2001; Grant, 2003; FreeMarkets, 2003; Emiliani and Stec, 2005). This is due in part to the common metric that is used to determine unit price savings – purchase price variance[1] – which is easily manipulated (Emiliani *et al.*, 2004). Accurate measurement of total costs would reveal that online reverse auctions, in most cases, yield unfavorable results (Emiliani and Stec, 2002).

More successful outcomes may occur between specific pairs of buyers and sellers for certain commodities such as bulk materials, stock commercial goods, or non-technical services that can be easily specified, and where switching costs are negligible (Smart and Harrison, 2003). Overall, it is likely that the use of online reverse auctions will be limited to narrower circumstances in the future if buyers and market makers do not adequately address current shortcomings.

Senior managers have many reasons for using online reverse auctions. The most common are tremendous pressure for cost reduction due to global competition, particularly from low wage countries, pressure from influential investors to increase shareholder value quickly, and a strong desire to use technology-based tools that can help them achieve what appear to be quick results. However, this does not represent the totality of the decision-making process.

Table I Online reverse auction decision-making traps

Decision-making trap (Hammond *et al.*, 1998)	Rationale
Anchoring **Giving disproportionate weight to the first information received**	Senior managers are anchored in the savings and many other purported benefits of online reverse auctions offered by the market makers (e.g. Procuri, 2004), who are usually the first persons they meet with. Senior managers do not typically seek information that contradicts the market makers' claims Senior managers may have heard that large savings have been achieved by competitors or in related industries through trade press reports or from other executives they meet. Senior management usually discounts concerns expressed by lower level employees regarding problems with online reverse auctions
Status quo **Preference for solutions that preserve the current state**	Most large purchasing organizations have a historical preference for basing purchasing decisions on the unit lowest price. From this perspective, online reverse auctions preserve the *status quo*, and do not compel buyers to change organizational routines, such as collaborating closely with suppliers to manage cost problems Online reverse auctions perpetuate power-based bargaining, principally related to price, which is often the dominant historical practice in large industrial purchasing organizations A key measure of the effectiveness of many purchasing organizations is "purchase price variance," and the senior purchasing official seeks to meet performance targets relative to this metric. Online reverse auctions are very effective at supporting the continued use of this metric by the buyer
Sunk cost **Decisions that support past decisions**	Most online reverse auction activities start out as pilot projects. The savings identified at the conclusion of the initial online reverse auctions is usually large (e.g. 10-30 per cent). However, if the savings are not preserved on implementation (i.e. switching sources), the use of online reverse auctions may still continue due to the considerable effort required by the buyer to conduct the pilot project. Typically, a significant investment has been made by the buyer in money, time, and people – as well as the personal reputation of the VP of purchasing or the chief financial officer who supported the use of online reverse auctions – which makes it more attractive to convert the pilot project into a routine sourcing activity. Most senior managers are loath to admit errors
Confirming evidence **Seeking information that supports a viewpoint (while that which contradicts it is quickly rejected)**	The savings estimate anchor planted by the market maker is often confirmed at the conclusion of the initial online reverse auctions. This makes it easy for senior managers to authorize continued use of online reverse auctions Low prices bid by suppliers will confirm senior management's suspicion that they have been overcharged in the past
Framing **Making a decision based on how a question or problem is framed**[a]	Market makers frame online reverse auctions as having numerous benefits for buyers, which they find difficult to resist. The key benefit is cost savings. For example, online reverse auctions are marketed as a fast way to achieve cost savings that drop to the bottom line, which increase earnings-per-share in a predictable way over time, and thus contribute favorably to stock price performance. Since a large portion of executive compensation is often tied to stock price, using online reverse auctions is viewed as a "no-brainer"
Estimating/forecasting **Making estimates or forecasts of uncertain events, which are often faulty due to the three decision-making traps listed**	The savings that market makers usually disclose are end-of-auction results, not the savings achieved after implementation of auction results by the buyer. Thus, the savings estimate is overstated, and in some cases the use of online reverse auctions may actually increase the buyer's total costs, as problems that arise are paid for with budgets from other functional areas (e.g. quality problems, legal disputes, or warranty claims) Realizing end-of-auction results depends on the buyer's ability to secure the savings through disciplined re-sourcing activities (i.e. switching sources). If the buyer is not organizationally equipped to manage re-sourcing activities effectively, then the savings will slip away. Thus, savings, if any, are achieved over time, and may not be accrued in accordance with the financial forecast The prices that suppliers bid in online reverse auctions are based on forecast quantities of goods or services. Since lead-times are often long for many goods-producing companies (e.g. months), forecast accuracy is typically low. Supplier may then seek to re-negotiate prices with the buyer
Overconfidence **Believing that the estimate or forecast is accurate**	Senior managers tend to view production forecasts as accurate, when in fact they are not if lead-times are long Senior managers are overconfident in the amount of savings that can actually be achieved, and often include end-of-auction savings results in the financial plan Surprisingly, top executives in many organizations think that good quality and on-time delivery performance are "a given" if a supplier is to be viable in a particular industry. Implementation of online reverse auction results often face significant quality and delivery performance issues, especially if the seller has never supplied the buyer before When work moves from one supplier to another, the incumbent supplier often continues to do at least some work for the buyer. Since most suppliers view online reverse auctions as opportunistic behavior among buyers, they will seek opportunities to charge higher prices. Thus, executives are overconfident (in the general sense) if they think that incumbent suppliers that have been subjected to reverse auctions will not try to get even at some point in the future (e.g. charging large expediting fees or large tooling costs when the buyer is in a jam)

(continued)

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Table I

Decision-making trap (Hammond *et al.*, 1998)	Rationale
Prudence **Adjusting estimates or forecasts to "be on the safe side"**	Some market makers give guidance to buyers on the percent savings they can expect to secure on implementation. For example, if 20 percent savings was achieved end-of-auction for a category of machines parts, the market makers' work with other clients will indicate that 70 percent of this savings can be achieved ($0.2 \times 0.7 = 14$ per cent). This prudence trap creates a frame and anchor that gives an impression that most of the savings can be realized. However, the savings are based on the purchase price variance metric alone, and do not consider costs that will accrue to other budget categories if quality, delivery, or other problems occur
Recallability **Predictions about the future based on memory of past events**	Senior managers are often present at the initial online reverse auctions, and dramatic, favorable end-of-auction results may be remembered as the norm, rather than as an exception revealed in future reverse auctions that they do not attend Senior managers often forget the costs and difficulties associated with re-sourcing work from one supplier to another

Note: [a] Frames are particularly dangerous because they can lead to other decision-making traps such as *status quo* or anchoring, and can emphasize sunk costs or provide confirming evidence. For example, a director of purchasing from a large multi-national soft-drink company contacted the author for information, on behalf of the vice president of purchasing, regarding the savings that can be achieved using online reverse auctions. When informed that savings may not be as great as that claimed by the market maker, the director of purchasing stated that she was only interested in information that supported the market maker's savings estimate – which was what her boss wanted. The market makers framed the benefits of reverse auctions in a favorable light – discounting possible negative consequences – which then anchored senior managers into a savings figure (i.e. an estimate or forecast) whose validity would later be confirmed as more-or-less accurate at the conclusion of the reverse auction events. It would only be later on, on implementation of reverse auction results, that the multiple hidden traps in decision making are fully revealed in the form of reduced savings, and delivery, quality, or other problems

This paper provides additional insights into why online reverse auctions have been so widely used by large industrial buyers, beyond the three primary reasons cited by senior managers. The decision to use online reverse auctions is typically favorable, despite the existence of negative outcomes reported in the literature, as well as unreported negative outcomes commonly known among lower-level purchasing professionals that have had experience conducting online reverse auctions and implementing the results. This suggests that senior management's decision-making process is flawed. But in what ways is it flawed?

Decision-making traps

Hammond *et al.* (1998) identified nine major "hidden traps in decision-making" commonly experienced by executives: anchoring, status quo, sunk cost, confirming evidence, framing, estimating/forecasting, and overconfidence, prudence, and recallability. The authors note that decision-making traps lead to a failure to evaluate alternatives, and that decisions often result in unfavorable outcomes for both the business and the executives making the decisions. If poor decisions are to be avoided (Finkelstein, 2003), then senior managers must first become aware of these decision-making traps.

The sale of online reverse auction services is generally made to the vice president of purchasing or the vice president of finance. The market makers know their audience well with regards to corporate financial objectives and the measures typically used to gage success in the purchase of goods and services. Thus, there is a simple convergence of need with a service provider's capability to meet that need. While intentions may be wholesome, unintended consequences may arise that can temporarily compromise the buyer's ability to meet customer needs.

Table I summarizes the decision-making traps, and provides the rationale for their existence in decisions made by senior managers to use online reverse auctions. The rationale presented should be understood as common occurrences based upon the authors' first-hand experiences with managing several online reverse auctions and subsequent research findings (Emiliani, 2004; Emiliani and Stec, 2002, 2004, 2005), but also recognizing that specific circumstances may be different.

Summary

This paper examined how decision-making traps – anchoring, status quo, sunk cost, confirming evidence, framing, estimating/forecasting, and overconfidence, prudence, and recallability – can favorably affect decisions made by senior managers to engage in online reverse auctions. In general, buyers' process for evaluating online reverse auction services fails to consider these decision-making traps, while the market makers will no doubt find these decision-making traps to be quite helpful in selling their services. The presence of decision-making traps in purchasing and supply chain management is a topic that must be further understood in practice, and should also presented in business school courses that focus on sourcing strategic and non-strategic of goods and services. Doing so will help improve future decision making with regard to purchasing and supply chain management.

Note

1 Purchase price variance is usually calculated as follows: PPV = (standard cost/unit × actual purchase volume) − (actual cost/unit × actual purchase volume). For organizations that do not use standard costs, the PPV (often volume adjusted) is calculated as follows: PPV = last purchase price paid − current purchase price quoted.

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