

Chapter 8

Acceptance of E-Reverse Auction From the Buyer Perspective

Cigdem Altin Gumussoy
Istanbul Technical University, Turkey

Bilal Gumussoy
Shell and Turcas Petrol Inc., Turkey

ABSTRACT

E-reverse auction is an online, real-time dynamic auction between a buyer organization and a group of pre-qualified suppliers. There occurs a competitive environment, which can lead to great price reductions for the items auctioned. In addition, cycle-time savings for buyers and suppliers, growing markets, accessing to a larger pool of suppliers can be the other advantages. Using e-reverse auction also includes risks such as damaging supplier relationships and increasing the total cost of procurement. This leads to a resistance from internal users and suppliers in the use of e-reverse auction. In the chapter, a research model including risks and benefits of using e-reverse auction is proposed in order to understand the important factors in the decision to use e-reverse auction.

INTRODUCTION

With the advances in internet technologies, an e-reverse auction becomes a popular way of procurement of products and services. E-reverse auction is “an online, real-time dynamic auction between a buyer organization and a group of pre-qualified suppliers who compete against each other to win the business to supply goods or services that have clearly defined specifications for design, quantity, quality, delivery, and related terms and conditions” (Beall et al., 2003, p.7). E-reverse auction is first introduced in 1995 by FreeMarkets Online and since then the number of users has dramatically increased.

E-reverse auction initiates with the preparation of a request for quotation (RFQ) by the buyer, which includes the information about the specifications of the products or services to be auctioned. The format of the auction such as historical price, bid decrement and auction starting time is discussed and agreed

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with the suppliers and the buyer before the auction (Mithas and Jones, 2007). Suppliers all over the world without any geographical limitation can participate to the auction if qualified by the buyer to join. This increases the competition and the chance to find most capable supplier with unique capabilities (Hartley et al., 2004; Lucking-Reiley, 2000). At the starting time, all the potential suppliers log in to the system, start to compete and bid against each other. However, the participants do not see their identity and generally see the lowest bid value and their rank with respect to the other participants or their rank only. Each participant may submit multiple bids during the auction. This competitive environment can lead to great price reductions for the items auctioned. In addition, cycle-time savings for buyers and suppliers, growing markets, accessing to a larger pool of suppliers can be the other advantages of e-reverse auction use (Schoenherr and Mabert, 2007; Mithas et al., 2008).

On the other hand, using e-reverse auction includes risks such as damaging supplier relationships, switching to a supplier who cannot satisfy the quality requirements, increasing the total cost of procurement, the need to invest in technology, distrust to a new supplier about the responsiveness and flexibility to the changes in demand (Schoenherr and Mabert, 2011; Mithas et al., 2008; Hartley et al., 2006). Therefore, there may be resistance from internal users and suppliers for possible risks or underestimation of the benefits of e-reverse auction use (Schoenherr and Mabert, 2007).

In the current study, a research model including risks and benefits of using e-reverse auction is proposed in order to reveal the important factors in the decision to use e-reverse auction. Furthermore, the effect of organizational characteristics such as firm size, information technology (IT) capability and managerial support on the usage decision are discussed in the research model. The next section discusses the literature on e-reverse auction use. This section is followed with a research model on the use of e-reverse auction use, and the chapter concludes with the possible future research areas and conclusion.

BACKGROUND

The empirical research on e-reverse auction reveals that the main reason to use e-reverse auction is to maximize the savings in the procurement of products or services. One of the popular service provider, Ariba StartSourcing indicates that they are delivering “value for organizations for all sizes and industries by- sourcing \$340 billion spend in annual across 500 categories, saving \$30 billion annually and cutting process and cycle times by 50-70 percent” (Ariba StartSourcing Solution, 2015).

In contrast to price decrease, switching to a new supplier may increase the transaction cost. The basic principle of Transaction Cost of Economics (TCE) is that “people like to conduct transactions in the most economical way” (Teo and Yu, 2005, p. 452). It explains the reason for selecting one transaction over another. In that transaction the costs are minimized and the benefits are maximized. With e-reverse auction, buyers may procure the products or services with less prices and search costs. Whereas, the supplier change may lead to an uncertainty, which is the principal factor of TCE (Teo and Yu, 2005). Mithas et al. (2008) define uncertainty in the element of non-contractible dimensions. Non-contractible dimensions include situations that cannot be estimated at the start of the contract. Task-based non-contractibility includes uncertainty about the quality, technological investment requirement and prosperity in information exchange, whereas interaction-based dimensions include responsiveness, trust and flexibility of the suppliers for the possible changes in the demand. They revealed that non-contractibility presents an obstacle in the decision to use e-reverse auction. To mitigate risks of the non-contractibility dimensions, buyer

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