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A STAKEHOLDER-BENEFIT PERSPECTIVE OF REVERSE AUCTIONS

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Abstract

Procurement represents a major operation for many organizations. In the quest to improve procurement practices, some organizations have turned to implementing Information and Communication Technologies (ICT). This exploratory study investigates some of the benefits presented by Reverse Auction, a procurement tool that owes its very own existence to advancements in ICT. The framework "Reverse Auction Stakeholder-Benefit Grid" is proposed for understanding the numerous benefits of Reverse Auctions to the Seller and Buyer. The study aims to provide practitioners and academic researchers with suggestions as to how the Reverse Auction business model can be used to deliver benefits to sellers and buyers, creating a Win-Win situation in the cut-throat world of online Business-to-Business Electronic Commerce.

Introduction

The lackluster performance of many Dotcoms in 2000 has dampened industry expectations towards the Electronic Commerce industry, and the Digital Economy as a whole. However, all is not lost. Organizations from the Old Economy, which are commonly known as the "brick and mortar" companies, are keen to use the Internet and other Information and Communication Technologies (ICT) for Business-to-Business (B2B) purposes. Estimates and forecasts of the B2B Electronic Commerce arena may vary on the magnitude of growth and adoption rate, but share the commonality of continuing growth in the coming few years (Bermudez 2001). Such optimism in B2B Electronic Commerce is based on the belief that B2B Electronic Commerce is capable of streamlining business processes, enhancing trading relationships, leading to reduced costs of doing business and improved profitability in the longer term.

The commercialization of the Internet in the early and mid 1990's has triggered several innovative Electronic Commerce business models. The traditional auctioneering mechanism which is widely used for selling off goods and services to the highest bidder has been given a digital transformation, with several innovative electronic auction models being developed to leverage on the availability of real-time, low-cost, high-capacity information exchange (Kambil and Van Heck 1998). While the name eBay has become synonymous with online auctions, it is but only one of the several electronic auction models available today.

This paper focuses on the Reverse Auction electronic auction model. It is an online auctioneering mechanism which essentially tips the traditional forward auction model upside-down. Instead of having the seller auctioneering goods (or services) to the highest bidding buyer, the buyer hosts auction events to tender off contracts to the lowest bidding seller. This exploratory study seeks to understand how various organizations stand to benefit from participating in Reverse Auctions. The *Reverse Auction Stakeholder-Benefit Grid* is proposed as a framework for achieving this.

The study contributes to practitioners and academics by emphasizing that a Win-Win situation is necessary for organizations to participate in innovative Electronic Commerce business models. The framework highlights incentives (benefits from Reverse Auctions in this case) which may be used to create a Win-Win situation. Data from an ongoing study of a series of Reverse Auctions conducted in Australia is used to guide the direction of research.

The Reverse Auction Model for E-Business

The Reverse Auction model was first conceptualized by Glen Meakem in 1994 (Tully 2000). Subsequently, Meakem set up Freemarkets Inc., which specializes in conducting Reverse Auctions for its clients. Research into the Reverse Auction phenomenon is beginning to emerge (Emiliani 2000), but many articles are merely reporting the millions of dollars of savings that can be attributed to Reverse Auctions (Brunelli 2000, Colvin 2000, Henke 2000, Kirby 2000). Some practitioners and researchers are more critical. Henke (2000) suggests that organizations should not use Reverse Auction as a price-cutting tool, whilst Emiliani (2000) concluded that implementing Reverse Auctions may delay the introduction of modern supply chain management systems in organizations.

For the purpose of this study, Reverse Auction is treated as a mechanism which changes parts of existing practice in supplier selection. Before the days of Reverse Auctions, the purchasing organization had to prepare a tender document, which was then forwarded to existing and potential suppliers. Purchasing managers negotiate price, quantity, quality, delivery schedules, payments, and other terms and conditions for the contract with the supplier's marketing manager (Bensaou 1999). Depending on the buyer's supplier selection strategy, the negotiation process may be a round-robin process, whereby a supplier has only one chance of negotiating and winning the contract (Barua et al. 1997); or the buyer may continually negotiate with several suppliers, and keep going back to earlier suppliers to pressure them to match better deals offered by their competitors. Reverse Auctions are expected to streamline the above-mentioned process by allowing suppliers to compete amongst themselves to win the tender through real-time online bidding (Kaplan and Sawhney 2000, Kinney 2000, Kirby 2000, Sinha 2000, Thomas 2000).

Figure 1 illustrates negotiation in the traditional supplier selection process, where the buyer negotiates continuously with individual seller before a successful seller is selected. The thick arrows represent the negotiation between the seller and buyer.

Briefly, the Reverse Auction process is a more disciplined and standardized procedure. The buyer prepares a tender document thoroughly. The tender document is sent out to potential suppliers. Suppliers are required to respond to the tender, to confirm their ability to meet these requirements and adhere to the rules and regulations of the Reverse Auction process. A trial auction is conducted prior to the real auction to give suppliers some experience in online bidding. On the actual day of the auction, suppliers login to an online auction session. The auction is usually constrained by time. Bidders are required to place bids in decremental steps to win the tender. The winning bidder at the end of the online auction session is the one who has placed the lowest bid at the earliest instance. The winning bidder is then invited for thorough post-auction negotiations to cement the deal. The buying organization may negotiate a deal with the runner up bidder if the winning bidder cannot satisfy its requirements fully. A detailed description of the Reverse Auction process is covered by Emiliani (2000).

Figure 2 illustrates the Reverse Auction supplier selection process, whereby sellers compete amongst themselves in the auction's bidding process, with the buyer negotiating with the winning bidder ultimately. The thin arrows represent the bidding activities of the sellers, and the thick arrow represents the negotiation between the buyer and the seller with the winning bid.

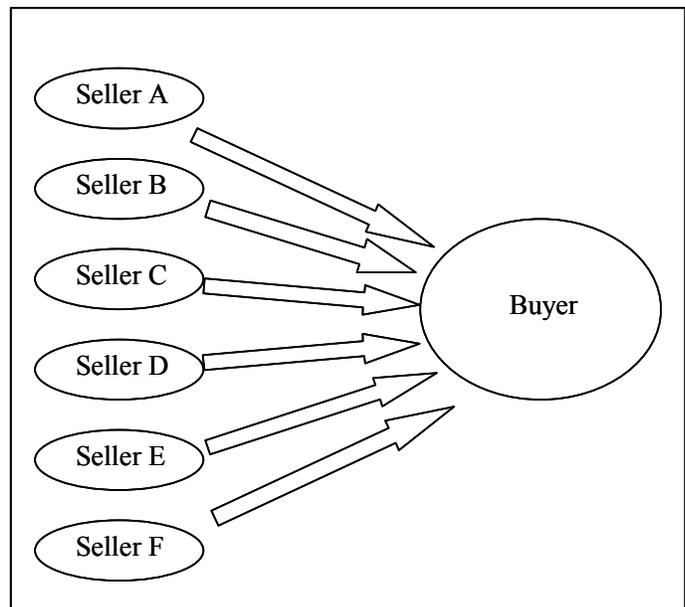


Figure 1. Traditional Supplier Selection Process

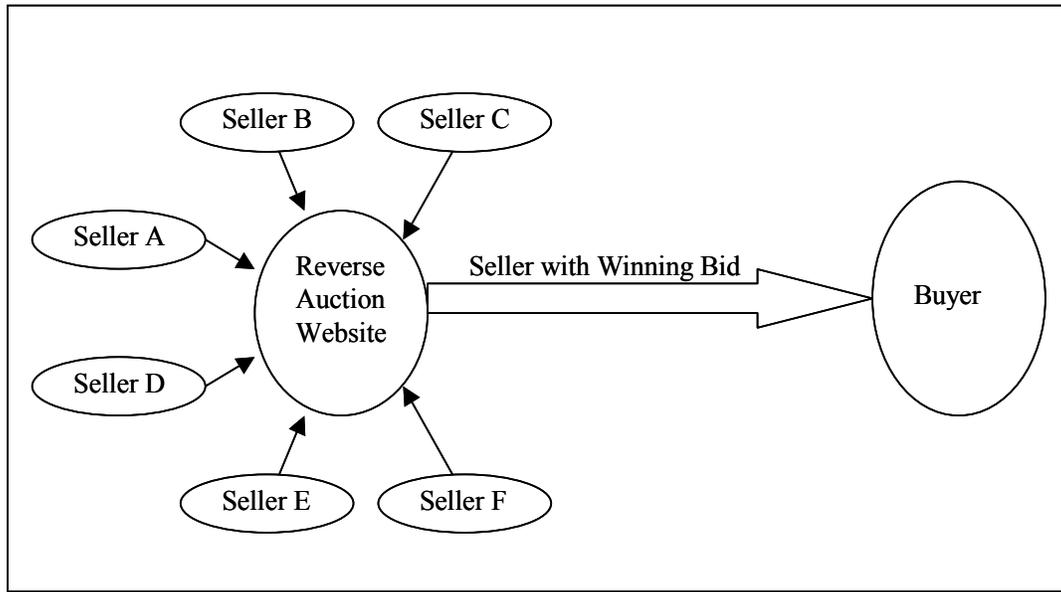


Figure 2. Reverse Auction Supplier Selection Process

Reverse Auction and Stakeholder-Benefits

In a competitive marketplace, many organizations seek to improve internal and external business processes with the help of ICT (Kambil and Van Heck 1998) to reduce the costs of doing business, which can lead to higher profitability. Reverse Auctions are expected to improve the procurement process by reducing the costs of transaction, thus enabling organizations to buy and sell products at market-determined prices. For organizations to trade with each other they must gain mutual benefit. The framework that this paper proposes investigates Reverse Auction benefits to both buyers and sellers. The 7-phase Business Procurement Life Cycle (Archer and Yuan 2000, p. 390) is adopted for describing the various stages of the procurement process. The seven phases are in the following sequence:

1. Information gathering
2. Supplier contact
3. Background review
4. Negotiation
5. Fulfillment
6. Consumption, maintenance, and disposal
7. Renewal

An analysis of the Reverse Auction process identified several areas where a Reverse Auction could improve various phases of the Business Procurement Life Cycle. The areas of benefit are separated into two main categories according to the stakeholder involved, namely, Seller Benefits, and Buyer Benefits.

Reverse Auctions and Seller Benefits

The following are areas where sellers benefit from participating in an online Reverse Auction. These benefits are coded from A to F, as summarized by Table 1.

A. Ability to access a level playing field

Sellers who participate in a Reverse Auction have the opportunity to operate in a fairer supplier selection process than before. Supplier favoritism is greatly reduced since the Reverse Auction process is conducted in a disciplined, standardized and structured manner. As long as the seller is capable of meeting the requirements specified by the buyer, it has a chance to compete to win the tender. The bidding process gives every seller the opportunity to place its best offer forward. This benefit is expected to be exhibited in phases 1, 2, 3, 4 and 7 of the Business Procurement Life Cycle.

B. Ability to access an expanded market, less constrained by geographical and temporal barriers

In Reverse Auctions, sellers have the opportunity to bid for tenders without being constrained by temporal and geographical separation. Very often, sellers do not have the resources to participate in tenders for supplies that are in regions beyond certain geographical boundaries due to the high costs of participation. Participating in Reverse Auctions also gives the sellers more exposure, leading to the buyer inviting them to participate in future contract tenders as their offerings become known and their capabilities are appreciated. Sellers enjoy such exposure while incurring minimal marketing costs. This benefit is expected to be exhibited in phases 1, 2 and 7 of the Business Procurement Life Cycle.

C. Opportunity to win bigger contracts in future

Continuing from the previous point, if the seller manages to win the tender, then it has a greater chance of supplying other products, e.g. maintenance and support for the initial product. Put simply, by participating in Reverse Auctions, sellers who are willing to compete aggressively stand to increase their opportunity to sell more to each customer, as well as selling to more customers. This benefit is expected to be exhibited in phases 3, 4 and 7 of the Business Procurement Life Cycle.

D. Ability to respond to competition

The bidding process in Reverse Auctions allows sellers to respond to market competition. Reverse Auctions enable them to consider their position in the market quickly, and to continually improve their internal cost structures to offer bids that would either match or better the rivals'. The dynamic pricing nature (Kafka et al. 2000) of the bidding process gives the sellers a snapshot of current market conditions, without having to rely on outdated predictions. It is expected that sellers gain benefit in the negotiation phase (phase 5) of the Business Procurement Life Cycle.

E. Ability to improve production scheduling

Continuing from Point D, Reverse Auctions provide up-to-date market information to sellers, enabling them to schedule their production cycles to maximize current market conditions, e.g. increase capacity to meet expected increase in market demand. In addition, the pricing strategy can leverage on current market conditions. This benefit is expected to be observed in phases 6 and 7 of the Business Procurement Life Cycle.

F. Ability to increase business certainty

If the seller can convince the buyer that it is offering a superior bid in comparison to the rivals', then it may even encourage the buyer to extend the contract for a term which is longer than the initial intended period. Incidentally, Reverse Auctions highlight the superiority of a bid, leading to extended business certainty for the winning seller. This benefit is expected to impact phases 4 and 7 of the Business Procurement Life Cycle.

Table 1. Reverse Auction and Seller Benefits

<i>Seller Benefits</i>	<i>Code</i>
Ability to access a level playing field	
Ability to access an expanded market, less constrained by geographical and temporal barriers	B
Opportunity to win bigger contracts in future	C
Ability to respond to competition	D
Ability to improve production scheduling	E
Ability to increase business certainty	F

Reverse Auctions and Buyer Benefits

Reverse Auctions also benefit buyers. The following points highlight how these benefits impact on the various stages of the Business Procurement Life Cycle, in aiding the understanding of how Reverse Auctions present opportunities to the buyer. As summarized in Table 2, these five areas of benefits are coded V – Z.

V. Ability to Standardize Procurement and Reduce Maverick Purchases

In order for buyers to convey their requirements clearly to potential sellers, the Reverse Auction process has to be regulated by strict and standardized procedures. This is to prevent haphazard and undisciplined negotiations. The standardized procedure allows for audits and reduces instances of favoritism towards any particular seller. The standardized nature of the Reverse Auction procurement process encourages sellers to make their internal operations transparent to the buyer, thus allowing buyers to select lean suppliers. The disciplined and standardized procedure also reduces maverick purchases by the buyer. Every purchase has to undergo stringent evaluation. This type of benefit is expected to improve phases 1, 2, 3 and 4 of the Business Procurement Life Cycle.

W. Ability to Shorten the Negotiation Process

The Reverse Auction mechanism requires sellers to be present “virtually” during the auction session. Reverse Auctions discourage sellers from delaying and prolonging the negotiation process, since this will only disadvantage the individual seller. The seller can seal the deal easily with rival bidders should deliberate delays occur. Hence the buyer can benefit from a streamlined supplier selection process. The Reverse Auction model also enables more up-to-date cost analysis to be made from the perspective of the buyer. This benefit affects the negotiation phase (phase 4) of the Business Procurement Life Cycle.

X. Ability to access a greater number of suppliers

Reverse Auctions involve less manual work in price negotiation. Reverse Auctions let the buyer evaluate offerings from many suppliers at a lower cost. The bidding process enables the buyer to view a greater number of offerings, and to choose from a wider selection. This benefit is expected to affect phases 1, 2, 3, 4 and 7 of the Business Procurement Life Cycle.

Y. Ability to reduce procurement costs

Many organizations which have adopted Reverse Auctions were motivated by their ability to reduce buyer search cost. Reverse Auctions reduce human-intensive and costly supplier selection. Reverse Auctions encourage sellers to compete amongst themselves, reducing the need for the buyer to haggle with individual sellers. Compared to non-electronic procurement methods, Reverse Auctions reduce paper-based offers and counter-offers, reducing communication costs required for contacting sellers. Apart from phase 6, this benefit is expected to impact on every phase of Business Procurement Life Cycle.

Z. Ability to purchase at market-determined price

Buying organizations can perform Reverse Auctions towards the end of existing contracts to ensure that they are continually getting the greatest value for money contracts. Existing suppliers are motivated to optimize operations and pass on cost savings and efficiencies to the buyer in a competitive market setting. Reverse Auctions increase cost and price transparencies, enabling the buyer to purchase products at market-determined prices. This benefit is expected to be observed in phases 4 and 7 of the Business Procurement Life Cycle.

Table 2. Reverse Auction and Buyer Benefits

<i>Buyer Benefits</i>	<i>Code</i>
Ability to standardize procurement and reduce maverick purchases	V
Ability to shorten the negotiation process	W
Ability to access a greater number of suppliers	X
Ability to reduce procurement costs	Y
Ability to purchase at market-determined price	Z

The “Reverse Auction Stakeholder-Benefit Grid”

The aim of introducing the Reverse Auction Stakeholder-Benefit Grid is to aid understanding in how the Reverse Auction mechanism impacts and improves various phases of business procurement.

This grid is constructed by anchoring elements of benefits from Tables 1 and 2 to the 7 phases of the Business Procurement Life Cycle. Table 3 illustrates the current state of the Reverse Auction Stakeholder-Benefit Grid.

Table 3. The Reverse Auction Stakeholder-Benefit Grid

<i>Phases</i>	<i>Seller Benefits</i>	<i>Buyer Benefits</i>
1. Information gathering	A, B	V, X, Y
2. Supplier contact	A, B	V, X, Y
3. Background review	A, C,	V, X, Y
4. Negotiation	A, C, D	V, W, X, Y, Z
5. Fulfillment	E	Y
6. Consumption, maintenance, and disposal	E	
7. Renewal	A, B, C, F	X, Z

Anchoring individual stakeholder benefit element to the various phases of the Business Procurement Life Cycle enables stakeholders to realize the roots of benefits. The grid highlights methods for optimizing these benefits. Nevertheless, the stakeholder benefit lists may not be complete and future research may add or eliminate elements of stakeholder benefits. Empirical evidence may also point to these different benefits being anchored to different phases of the Business Procurement Life Cycle. For instance, the negotiation phase may experience seller benefits A, B, C, D and E, instead of benefits A, C and D at the present time.

Methodology

This is an ongoing exploratory study using a series of real-life Reverse Auctions to investigate benefits to buyers and sellers using the proposed *Reverse Auction Stakeholder-Benefit Grid*. An interpretivist approach is adopted since many of the concepts highlighted may not be complete, and newer issues and challenges await future research. The interpretivist approach is based on the belief that reality is subjective, a socially constructed product that is interpreted by humans as social actors according to our beliefs and value systems such as language, consciousness and shared meanings (Neuman 1991; Lacity, 1994; Myers, 1997). Thus different groups interpret situations differently. Interpretivist researchers aim to understand the phenomenon through assessment of the meanings that humans assign to them (Orlikowski & Baroudi 1991). Interpretivist research aims to develop a deep understanding of the phenomenon under investigation, and as such, the quality of the interpretivist work is measured by the believability of the inferences drawn (Shanks, Rouse & Arnott 1993; Walsham 1995). Quantitative research relies on the measurement of descriptive variables, to remove the effects of context, and to use inferential statistics in order to produce generalizable and reproducible results (Kaplan & Duchon 1988). In the current study, the aim is not to test theory or measure any descriptive variable from the data and thus quantitative methods were not adopted. Rather, resultant data was analyzed and assimilated in order to draw logical implications. Qualitative research methods were chosen instead, in order to develop the implications and suggestions from the data.

Qualitative research focuses on the meaning in the context or natural setting of the study, and is oriented towards exploration and discovery where the researcher attempts to make sense of the situation (Patton 1990; Myers 1997). Categories and meanings emerge from the data collected as the researcher develops an understanding of the situation (Kaplan & Duchon 1988). The outcomes required by the researcher involve the discovery of important concepts, themes and implications.

It was thus considered appropriate to use an interpretivist framework to understand the relationships between suppliers and buyers in the Reverse Auction business model in B2B electronic commerce.

An informal, semi-structured interview technique was used following the techniques developed and used by Kitwood (1980), and Wilson and Arnold (1986). Non-directive questioning which is open-ended and acts as a stimulant for the subject's thoughts, was often used to make the subject feel at ease so that he/she would be able to give considered views and opinions rather than just giving yes or no answers. The questions themselves emerged from an understanding of the constituent nature of the stakeholder relationships (Corbitt 1997) garnered from existing literature and other research. Executives from the buying and selling organizations who have participated in Reverse Auctions were interviewed. Confidentiality restrictions prevent details that may lead to the identification of the participants be included in this paper. The series of Reverse Auctions were conducted by a finance-oriented organization for the procurement of indirect materials and services.

Discussion

Preliminary data collected from this study exposes some very interesting issues, particularly behavioral issues of the sellers.

Bidding Activity Intensifies in the Final Minutes the Auction Session

The normal duration of a Reverse Auction is set at sixty minutes. It was observed that only one or two bidders were willing to place a bid early in the auction. Many bidders preferred to wait until the final ten to fifteen minutes before placing their bids.

This may be due to the fact that these sellers believed that by putting in an early bid, they would allow competitors to know their operating cost and pricing strategy especially if they do not win the contract in the end. In most cases, bidding intensified towards the end of the auction. At this time, many sellers hoped to clinch the deal by exploiting the element of time and surprise. They place their best bids in the hope that competitors do not have the time to respond and counter them. This study found that the winning bidder usually do not participate early in the auction.

This observation indicates that the Reverse Auction process benefits sellers provided they bid according to a strategy. By placing bids towards the end of an auction, it becomes more difficult for competitors to counter-bid. On the other hand, Reverse Auctions benefit the buyer as Reverse Auctions prevent sellers from using delay tactics to prolong the negotiation unnecessarily since a time limit for the auction has been pre-determined. The extent to which Reverse Auctions improve the information gathering phase of procurement may be limited by self-centered behavior of individual stakeholders.

Sellers are Willing to Match the Current Winning Bids Only

This observation was unexpected, as the Reverse Auction terms and conditions stated clearly that to win the auction, the bidder has to place the best bid at the earliest instance. This phenomenon may be due to the fact that many sellers followed pricing policies which emphasized price-matching. Bidders might only be willing to supply products at market determined-prices, preferably without sacrificing their own profit margin by undercutting market price.

The phenomenon suggests that although Reverse Auction allows buyers to reach out to new suppliers, the process will only intensify the competition if aggressive sellers are invited. Also, to make sellers bid more aggressively, the contract that is to be tendered out should be of significant magnitude to attract their interests.

Sellers are Keen to Know Their Competitors

The Reverse Auction process allows bidders to see the current winning bid as well as the bid history, but not the identity of the bidder. It was found that bidders were very interested to know whom they were bidding against. This is opposed to traditional negotiation for procurement contracts, where the identity of the leading bidders, or current bidder, may be revealed. In the Reverse Auction scenario, the identities of bidders are masked to prevent collusion amongst bidders.

This observation suggests that the introduction of new competition may exert pressure on existing sellers to improve their offerings if the identity of the new supplier remains unknown. It highlights the alternatives available to the buyer, and at the same time enables new sellers to benefit from bidding in a fair and structured process without being intimidated by competitors, especially if there is a huge variation in organizational size.

Seller's Enthusiasm in Participating in Reverse Auctions

An analysis across the different auction events revealed that industry culture may affect the enthusiasm of bidders. In some industries, the sellers are keen to participate. They have little trouble in understanding the whole auctioning process. However, some organizations from the more high-tech industries have actually shown a lack of enthusiasm, taking the auction for granted. This may indicate that in some industries, the players have become complacent. Thus, it highlights the need for sellers to be continually informed about potential benefits, and to believe that the threat of competition is real. For Reverse Auctions to attract more attention from these bidders, the new contracts will have to be of significant value and size to generate interest. The buyer

should encourage suppliers to get online by sticking to the rule, that is rewarding sellers who have participated and won in the auction.

However, it is important to note that observation from this study is restricted by several constraints. One of these is the type of procurement involved. Behavior of the buyer and seller may differ if Reverse Auctions are used for procuring direct materials. Reverse Auctions are most suited for procuring supplies that can be commoditized easily, and yet incur the least switching costs. Take for example, an automotive manufacturer using Reverse Auctions for selecting steel suppliers. Although steel has many properties which allow it to be commoditized, traditionally, strong relationships between the automotive manufacturer and the steel producer may have been built based on collaborative Just-In-Time manufacturing. Opting for a new steel supplier may be uneconomical, but the threat of inviting new competition may actually encourage existing suppliers to improve their operations, and share benefits from leaner production with their customers.

In general, Reverse Auctions introduce a level of competition that motivates sellers to operate leaner production and to provide more aggressively packaged offerings. Reverse Auctions encourage the buyer to purchase from these sellers, giving them an opportunity to stand out from the crowd.

Apart from that, sellers participating in Reverse Auctions are encouraged to make their cost structures and pricing strategies transparent to customers and competitors when they place a bid. This can potentially allow competitors to replicate their strategies and undercut them. But on a more positive note, this may instead convince the buyer that the seller operates a lean and efficient production. It may indicate that the supplier has an honest pricing regime, and is ever willing to pass on such benefits to the buyer. The Reverse Auction process allows these sellers to put themselves in the spotlight, emphasizing their strengths, without of shedding too much light on their operations. Ultimately Reverse Auctions benefit both buyers and sellers.

Conclusion

Research into Reverse Auctions is still in its infancy. Although Reverse Auctions currently share many similarities with traditional multi-lateral negotiations, Reverse Auctions' strength lies in enabling organizations to buy and sell in a dynamic marketplace, at market-determined prices. In attempting to shed light on the Reverse Auction process, this study also suggests directions for future research. For example, future studies may benefit from using a Transaction Cost Theory approach for understanding the adoption and implementation of Reverse Auctions. Concepts from research in Virtual Organization may be applied to Reverse Auctions to understand implementation issues associated with real-time, distributed business processes.

Lately, B2B Electronic Commerce activities have also attracted the attention of competition watchdogs. Challenges to existing competition legislation may arise when a consortium of organizations collaborates to purchase using a Reverse Auction and in the process, exploit sellers who are mainly Small and Medium Enterprises. Should competition watchdogs, then, pay more attention to sellers, and not only act on behalf of consumers? Practitioners may be interested in knowing how Small and Medium Enterprises who are not capable of holding Reverse Auctions themselves, will change their procurement habit should their competitors adopt Reverse Auctions.

This paper intends to increase organizational awareness of Reverse Auction benefits. Although many organizations have started using Reverse Auctions for purchasing supplies in recent years, very few recognize that it requires proper implementation strategies to ensure its continuous effectiveness in lowering cost structure and reflecting on market-determined pricing. By understanding the potential benefits of Reverse Auctions from the perspective of various stakeholders, organizations participating in a Reverse Auction event can better prepare themselves to use this procurement tool to their own advantage. The *Reverse Auction Stakeholder-Benefit Grid* framework contributes to future research in Reverse Auctions, and to B2B Electronic Commerce as a whole by identifying phases of business processes which can benefit from ICT implementation, and for tying such benefits to the relevant stakeholder.

References

- Archer, N., and Yuan, Y. "Managing business-to-business relationships throughout the e-commerce procurement life cycle." *Internet Research: Electronic Networking Applications and Policy* (10:5), 2000, pp. 385 - 395.
- Barua, A., Ravindran, S., and Whinston, A. B. "Efficient Selection of Suppliers over the Internet." *Journal of Management Information Systems* (13:4), 1997, pp. 117 - 137.
- Bensaou, M. "Portfolios of Buyer-Supplier Relationships." *Sloan Management Review* (40:4), 1999, pp. 35 - 44.

- Bermudez, J. "Private Trading Exchanges: The Cornerstone for \$5.7T in B2B.", AMR Research, 2001, URL: <http://www.amrresearch.com/EXV/default.asp?i=37>, .
- Brunelli, M. "Online auctions save millions for Quaker Oats and SmithKline Beecham." *Purchasing* (128:4), 2000, p. S22.
- Colvin, G. "Value Driven: Seller, Beware!" *Fortune* (141:9), 2000 p.74.
- Corbitt, B.J. "Implementing Policy for Homeless Kids in Schools: Reassessing the Micro and Macro Levels in the Policy Debate in Australia," *Journal of Education Policy* (12:3), 1997, pp. 165 – 176.
- Emiliani, M. L."Business-to-Business Online Auctions: Key Issues for Purchasing Process Improvement." *International Journal of Supply Chain Management* (5:4), 2000, pp. 176 - 186.
- Henke, J. W. "The Price is Wrong: Reverse auctions should not become a price-cutting tool." *Wards Auto World* (36:4), 2000, p. 51
- Kafka, S. J., Temkin, B. D., and Wegner, L."B2B Auctions Go Beyond Price." Forrester Inc., 2000, URL: www.forrester.com/ER/Baseline/QuickView/0,1338,9306,FF.html
- Kaplan, S., and Sawhney, H. "E-Hubs: The New B2B Marketplaces" *Harvard Business Review* (78:3), 2000, pp. 97-103.
- Kaplan, B. and Duchon, D. "Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study." *MIS Quarterly* (12:4): 1988, pp. 571 - 586.
- Kambil, A, and Van Heck, E. "Reengineering the Dutch Flower Auctions: A Framework for Analyzing Exchange Organizations." *Information Systems Research* (9:1) 1998, pp. 1 - 19.
- Kinney, S. (2000). "RIP Fixed Pricing: The Internet Is on Its Way to "Marketizing" Everything." *Business Economics* (35:2), 2000, pp. 39 - 44.
- Kirby, J. "Auctions: Orica cuts contract wrangling." *Information Economy @Business Review Weekly* (22:41), October 20, 2000, URL: <http://www.brw.com.au/stories/20001020/7555.htm>
- Kitwood, T. *Disclosures to a Stranger: Adolescent Values in an Advanced Industrial Society*, Routledge and Kegan Paul, London, U.K., 1980.
- Lacity, M. C., & Janson, M. A., (1994) "Understanding Qualitative Data: A Framework of Text Analysis Methods." *Journal of Management Information Systems* (11:2): 1994, pp. 137 - 155.
- Myers, M. D. "Qualitative Research in Information Systems." *MIS Quarterly* (21:2),1997. *MISQ Discovery*, archival version, June 1997, URL: <http://www.misq.org/misqd961/isworld/> *MISQ Discovery*, updated version, April 28, 1999, URL: <http://www.auckland.ac.nz/msis/isworld/>.
- Neuman, W. L. *Social Research Methods: Qualitative and Quantitative Approaches*. Allyn and Bacon, Massachusetts, 1991.
- Orlikowski, W. J. & Baroudi, J. J. "Studying Information Technology in Organisations: Research Approaches and Assumptions." *Information Systems Research*, (2), 1991.
- Patton, M. Q. "Qualitative Evaluation and Research Methods." (2nd Ed.) Sage Publications, Newbury Park, 1990.
- Shanks, G., Rouse, A., & Arnott, D. "A Review of Approaches to Research and Scholarship in Information Systems." *Proceedings of the 4th Australian Conference on Information Systems*, Brisbane, 1993.
- Sinha, I. "Cost Transparency: The Net's Real Threat to Prices and Brands." *Harvard Business Review* (78:2), 2000, pp. 43-50.
- Thomas, C. J., and Wilson, B. J."A Comparison of Auctions and Multilateral Negotiations." 2000, URL: [http://www.econlab.arizona.edu/papers/pdf/A Comparison of Auctions and Multilateral Negotiations.pdf](http://www.econlab.arizona.edu/papers/pdf/A%20Comparison%20of%20Auctions%20and%20Multilateral%20Negotiations.pdf)
- Tully, S. "The B2B Tool That Really IS Changing The World." *Fortune* (141:6) 2000, pp. 132 - 145.
- Wilson, P., and Arnold, J. *Street Kids: Australia's Alienated Young*, Collins Dove, Blackburn, VIC, Australia, 1986.