The role of Internet auctions in the expansion of B2B markets

C.M. Sashi*, Bay O’Leary

Department of Marketing, College of Business, Florida Atlantic University, 2912 College Avenue, Davie, FL 33314, USA

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Abstract

In the wake of the advent of the World Wide Web, businesses are scrambling to take advantage of changes in their markets. While the consumer side of the Web explosion has been much touted, it is the business-to-business (B2B) market that has quietly surpassed expectations. An important business model that is responsible for this new market expansion is the Internet or Web auction. Businesses are adapting traditional auctions to the instantaneous “real-time” advantage of the Net to reach new markets that were previously cost-prohibitive by reducing transaction costs. Advantages such as the size and scope of the audience are giving Internet auctions a major role in the emerging global economy. This article examines the enormous impact of Internet auctions on B2B markets. We look at the kinds of auctions being conducted and their relevance to emerging business paradigms. We examine the circumstances under which you choose to conduct Web auctions and their impact on pricing mechanisms, information asymmetries, and channel relationships.

1. Introduction

The Internet, as a medium of exchange, has only come into its own in the past 5 years. When the Internet initially appeared on the horizon, few realized that the new medium was on its way to changing the way consumers and businesses buy and sell products in a global environment and set prices in these transactions. With the growth of the Internet in the past several years, businesses have rapidly become aware of its potential impact and the need to adapt their entire strategies to take advantage of this potential. New institutions have emerged to make use of this new medium.

One way businesses have adapted to the global marketplace of the Internet has been to reengineer the way they do business. Intranets, extranets, and business Web sites are being developed to help companies cope with the expanding marketplace. Information technology and knowledge management have moved into the mainstream of business processes to help facilitate the communications effort necessary in this new era. The development of sophisticated software that enables businesses to buy and sell on the Internet under secure conditions has led to new strategies suited to this medium and the emergence of new business models.

A business model that is increasingly being used by businesses for transactions with one another is the Internet or Web auction. Web auctions, as a new way to buy and sell, have surpassed expectations for efficiently carrying out intermediate transactions in business-to-business (B2B) markets. Online auctions connect buyers and sellers together in ways that were previously not possible. Businesses can communicate their needs to a global audience in real time and cut transaction costs in the process. New relationships can be developed with suppliers who were previously inaccessible and relationships that are no longer necessary may be severed. Web auctions can cut costs substantially by increasing competition.

Web auctions have proved to be particularly popular for industrial procurement. In the US, it has been estimated that as much as US$0.35 of every dollar or US$5 trillion dollars goes to the procurement of industrial parts each year [1]. Traditional methods to elicit bids in an industrial procurement exchange require extensive time and effort. After a lengthy request for quotes (RFQ) process, a business was satisfied if it managed to get a good price from suppliers. The market for the RFQ was usually small and local, leading to inefficiencies in the process. One factor contributing to the RFQ process being inefficient was the lack of
standardization in the request itself. Unlike when products are homogeneous, it is difficult to compare prices when the specifications of a job or purchase opportunity are not the same. A business usually relied on straight rebuy transactions and stayed with one or two main suppliers with whom they had dealt successfully in the past in order to reduce transaction costs for most of their procurement needs. Occasionally, in modified rebuy situations, they might look at one or two newcomers per transaction to avoid becoming too dependent on one supplier.

Online Internet or Web auctions, however, permit businesses to reach suppliers on a global basis in real time without incurring the costs traditionally associated with such access. While estimates of the volume of online B2B transactions vary, Forrester Research suggests that B2B e-commerce will reach US$3.5 trillion by the year 2004 [2]. Industry analysts predict that 25% of this e-commerce will consist of exchanges engineered by Web auctions.

The proliferation of Web auctions in B2B markets in the past 2 years attests to the fact that Internet markets are well suited to the auction format for conducting transactions between organizations. In order to look at why Web auctions have become so popular for many businesses, we briefly review some rudimentary details of auctions and their pros and cons in the B2B context.

2. Types of Web auctions

A standard or non-Web auction has been defined by McAfee and McMillan [3] as “a market institution with an explicit set of rules determining resource allocation and prices on the basis of bids from the market participants.” While this definition would still hold for Web auctions, some of the rules have changed. Buyers and sellers no longer have to meet face-to-face to conduct an auction. In contrast with standard auctions, the time period of an auction online is longer and it ends at a preset time. The auctioneer also has the right to extend the time in a Web auction if tie bids are given. This usually happens in time increments of minutes or seconds. The technology in terms of software and systems required to ensure a fair outcome must be in place to conduct a Web auction in the virtual world.

A business may participate in Web auctions in several ways. The standard format is the English auction or the Ascending Price auction. In this type of auction, a seller who has something to sell and buyers who want the item are participants in the auction. The seller starts the bidding at a minimally acceptable point usually called the reserve price and the buyers bid higher and higher until no one is willing to go any higher. The buyer with the highest bid wins the item.

Many companies are using the English auction format for Web auctions. The English auction format is suitable for sales by companies holding excess inventory, companies that buy out-of-date inventory, or companies simply trying to reach a larger marketplace.

Another type of auction format commonly used in industrial procurement is the Dutch auction. In a Dutch auction, the company that holds the auction is the buyer and the companies that bid are the sellers. The buyer starts the bidding at a price deemed to be a fair starting point, which is the equivalent of the reserve price in an English auction. Often, companies use the previous price at which the items were bought as the starting point. The price is revealed and the bidding begins. The sellers start to bid lower and lower for the contract (the price at which they are willing to sell the items to the buyer) until a low bid is reached and there are no more offers. At this point, the contract for the items is given to the lowest bidder. The buyer is usually very pleased with the results as the auction has been shown to lower procurement costs by as much as 35% [4].

In the past, industrial procurement has been attempted using standard auctions for certain commodities, but the speed and real-time advantages of a Web auction have enabled it to far surpass traditional auctions. Several aspects of B2B markets are radically changing due to Web auctions. A company looking for a supply of widgets now has the choice of going to the Net. Many companies are using intermediaries to conduct the auction. In this type of auction, an intermediary like Freemarkets.com investigates the background of potential suppliers and acts as a consultant. Once they have narrowed the playing field to qualified suppliers, the auction takes place online.

There are other auction formats such as discriminatory price auctions or uniform price auctions for multiple items, and first price auctions or second price auctions for single items. The discriminatory and first price auctions are the online equivalent of a sealed bid auction. The buyer or seller uses e-mail or another electronic communication method to transmit a bid to the auctioneer. The private bids are sorted with the highest (or lowest in the terms of a contract or procurement auction) winning the bid. Uniform or second price auctions are conducted in the same manner with the second highest or lowest price winning the bid [5]. The formats, however, that have shown the greatest ability to be easily adapted to the Internet as evidenced by the sheer number of companies using them are the English and Dutch auction formats.

3. The growth of B2B Web auctions

In 1995, companies first started to look at Web auctions as a tool to help expand their markets. General Electric (GE) was a pioneer in developing its own auction site in-house. However, the technology had not yet developed to the point where it was feasible to carry out the transactions as envisaged. But after several years and a large investment, GE now runs one of the most successful Web auction sites.

One of GE’s employees recognized the new business model that was emerging early in its infancy and left GE to form Freemarkets.com, a company that acts as an inter-
mediary for businesses to conduct auctions on the Web. Freemarkets was the first Web auction intermediary site to emerge. With proprietary software, they managed to beat the competition for the lucrative B2B Web auction market. Freemarkets has gone on to conduct Web auctions for some of the largest companies in America such as General Motors, Procter & Gamble, Westinghouse, and Whirlpool. Freemarkets has claimed that it can help clients save up to 20% on purchases of industrial goods and services [6]. Most intermediary companies charge their client monthly fees plus a percentage of the final bid. Some intermediaries buy inventory and auction it off while others merely act as a middleman for their clients.

In the Web auction arena, hundreds of sites called “Net Markets” are being started online to sell excess inventory and overstocked items. These sites are making it possible for companies to turn excess inventory into profits that were previously difficult to garner. For example, Weirton Steel reported an increase in revenues of 10% as a result of using an intermediary, Metalsite.com to move excess inventory [7].

The fact that the Web opens the market to global buyers and suppliers makes Web auctions especially alluring. Technology is helping to open up the Web auction to companies of all sizes including small businesses and sole proprietors. Maxager Technology, for instance, is marketing software for businesses conducting Web auctions to help users determine how to bid to maximize profits and avoid pitfalls. In cyberspace, the size and scope of your business appear to be much less limiting than in bricks-and-mortar operations. What does matter is that sellers have the products a buyer wants as well as the tools required to connect with that buyer and complete the transaction. Web auctions make this connection almost seamless.

Companies like DoveBid, e-Steel, MetalSite, and Commerx PlasticsNet are revolutionizing the way businesses buy and sell industrial products. Web auctions have even been used for procurement by government agencies. The state of Pennsylvania cut 10% off the cost of aluminum used for license plates, and coal for heating government buildings by putting the RFQ out on the Net for an open auction [1].

4. Why choose a Web auction?

While Web auctions provide many benefits over more traditional exchange methods, they have not entirely replaced such methods. Several factors must be present to make a Web auction feasible. For a company to conduct a Web auction, the technology must be readily available to both buyer and seller. If a company intends to conduct Web auctions, a fairly substantial investment in software, call centers, auction technology, and foreign operations is necessary [1]. Software companies such as Oracle and Commerce One are leaping ahead to provide this market with the latest technological developments in order to make this possible. IBM recently unveiled software to create online marketplaces for wireless or mobile commerce that would bring together online catalogs, Internet auctions, and requests for proposals.

Buyers and sellers need to be notified that the auction will take place, which requires marketing to your target audience. Since the Web makes the process global, performing this function is more difficult than it used to be. For a B2B auction, bidders must be selected on the basis of their ability to fulfill the contract if they win the bid, which in turn requires extensive prequalifying activity. The prequalification function can be delegated to an internal department or outsourced to an intermediary. Either way, the process is somewhat labor-intensive and costly. The savings realized from the auction must exceed this cost to make it worthwhile.

Web auctions help eliminate the guesswork in setting the price of products that are not standardized. The pricing of such products is unstable as in a regular auction [8]. Products that do not lend themselves to menu pricing or haggling or are not geographically constrained can benefit from a Web auction format. Products that are perishable or have a short shelf life are also ideal candidates for this medium because they can be moved rapidly through the supply chain in real time. The Dutch flower auction market and the fish market are good examples of products that satisfy these parameters.

Products that are seasonal and products that end up as excess inventory are being moved through the supply channel far more profitably with the use of Web auctions. The auction format also eliminates guesswork in the pricing of these items [9]. Many companies who are adopting the “just-in-time” strategy of manufacturing are turning to Web auctions to keep their inventories down. The immediacy of the Web auction keeps their products flowing without a major investment. When an order is received, the company can reach a host of suppliers in an instant.

Web auctions are not practical in cases where the cost to conduct the auction is too high, or the product does not lend itself to flexible pricing. Products that rely on face-to-face haggling to achieve a sale are better sold or bought using traditional methods. Also, industries subject to government restrictions and constraints may not be able to conduct Web auctions for their needs. Table 1 summarizes some of the advantages and disadvantages of Web auctions for both buyers and sellers.

Table 1
Advantages and disadvantages of B2B Web auctions

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>Larger market</td>
<td>Greater competition</td>
</tr>
<tr>
<td>Global expansion</td>
<td>No face-to-face contact</td>
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<tr>
<td>Less inventory</td>
<td>Possibility of shortage</td>
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<tr>
<td>Reduced transaction costs</td>
<td>High fees for use of intermediary</td>
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<tr>
<td>High cost savings</td>
<td>Unknown supplier</td>
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<tr>
<td>Market for second-hand products</td>
<td>Deletes middleman</td>
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<tr>
<td>More efficient pricing</td>
<td>Lower profits</td>
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<tr>
<td>Lower risk of collusion</td>
<td>Requires prequalification</td>
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<td>Real-time transaction</td>
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When minimum price is a major criterion in the purchase of products such as maintenance, repair, and operating (MRO) items that are largely homogeneous, the Web auction can also produce efficient results. The possibility of many buyers and sellers participating makes it less necessary to establish relationships to ensure quick and reliable supply of these products, usually from local distributors. The model is similar to that used in many commodity auctions where basically identical goods and services are constantly being exchanged [10]. The New York Stock Exchange is an example of a standard auction of this type as is the Chicago Board of Trade.

For goods with services attached or for heterogeneous products, the process is more information-intensive. The information received by each bidder has to be standardized. The RFQs sent to potential bidders must contain all facts on the contract or product, including shipping, delivery details, quality, and other specifications necessary to insure that each bidder is aware of the parameters of the auction.

The next decision a business must make is who will conduct the auction. Some companies are taking on the responsibility themselves and developing their own sites. In many instances, buyers may prefer to develop and operate the sites. In yet others, intermediaries who are specialists in conducting Web auctions will emerge to carry out the function. Thus, different degrees of vertical integration may be expected in different industries and even within an industry variations may be expected for different products. Moreover, these vertical integration decisions may be expected to change over time.

Several large companies have recognized the advantages of using Web auctions. GE is not alone anymore in developing its own auction site. Other companies have recognized how GE’s bidding site (tpn.geis.com) has managed to sign up more than 2500 suppliers who bid for their business [4]. By utilizing the Web as an auction site, they have revolutionized their procurement process and supply chain.

General Motors was previously a major client of Freemarkets, but left Freemarkets to start Covisint with Ford, DaimlerChrysler, Nissan, and Renault as partners in an unprecedented move to make their supply chains more efficient by using the Web to obtain competitive bids from suppliers. In the aerospace industry, Boeing, Lockheed Martin, Raytheon, and BAE are creating a B2B exchange with the help of CommerceOne’s MarketSite. Similarly, retailers Sears and Carrefour have partnered to develop an online network for transactions with suppliers, which will include Web auctions.

5. Pricing mechanisms

The Web has possibly come closest to helping realize the concept of “frictionless commerce” [11]. In the virtual world, tens, hundreds, and even thousands of buyers and sellers can get together to conduct a trade. The movement towards an ideal marketplace is having a profound affect on the way goods and services are being priced.

Most regular B2B e-commerce sites used for trading goods started with fixed or menu pricing. However, with new Web auction software and technology becoming more advanced, businesses are seeing the advantages of adopting a dynamic pricing mechanism by resorting to Web auctions.

From the perspective of the seller, the most efficient way to participate and win a bid is to know how much it will take in terms of cost and service to complete the contract. For the low bid to win in a Web auction, the seller has to keep in mind the marginal cost and desired profit from a particular transaction. In real-time situations, this is often difficult.

Sellers in a Web auction are still able to succumb to the “Winner’s Curse” where the seller underbids the contract. The Winner’s Curse happens when a bidder will pay more (or take less) for a contract than it is really worth [8]. Bidders can get caught up in the excitement and challenge of the auction, only to discover when trying to fulfill the contract that they did not take into account unforeseen events like bad weather, union strikes, transportation problems, etc. This will have a major impact on their profits.

Are Web auctions forcing the market to be more competitive or are the pricing mechanisms working to merely drive down the price that a buyer will pay for industrial goods? Economists have widely held the belief that the pricing of a good or service has mostly been derived from the economic principles of supply and demand. The way that merchants price their items is usually by haggling or through a fixed price mechanism. With the Web auction, dynamic pricing can take place. The price that the item is bought or sold for should be the equilibrium price, where the item goes to the bidder who values it the most [3]. If there is no standard value to the item, the pricing mechanism may depend on many other factors relevant at that moment in time. Sellers, however, are uneasy with the Web auction model in the sense that they are seeing the prices that they get for their products go down due to greater competition.

One peril of standard auctions that might afflict Web auctions as well is the possibility that bidders who repeatedly participate in the same types of auctions can succumb to collusive behavior. Who is to say that even in a real-time Web auction bidders will not be tempted to e-mail each other during the auction? It is a known fact that collusion of this type is taking place in Web auctions to consumers. But even if overt collusion does not occur, it is possible that bidders can see pricing information faster in Web auctions and coordinate prices without talking to one another [12].

6. Information asymmetry

One of the main problems observed in standard auctions has been the asymmetry of information. McAfee and McMillan [3] propose the Revelation Principle in which the seller simply asks the bidder what the buyer thinks the
item is worth or what the buyer is willing to pay for the item to solve information asymmetry problems. The Revelation Principle is treated as a purely theoretical concept in the sense that it requires compatible incentives where it is not to the bidders’ advantage to understate the value of the bid.

But what of the Web auction? In a Web auction, all bidders have been given the same information (supposedly) with which to place their bids. They can watch the other bids as the bids are placed and respond accordingly. The availability of this type of information should result in the lowest bidder winning the bid. Bidders are able to see the pricing of the item develop and go lower (or higher in the terms of an English auction). They can participate in the Web auction as long as they meet or exceed the lowest bid. In a sense, the Revelation Principle seems to hold true in Web auctions because the technology itself creates the need for more symmetrical information. The value that competing bidders are placing on the item or items being auctioned is openly available in real time.

An important factor in a Web auction is the information given to the potential suppliers prior to the start of the auction. Each bidder should have a detailed RFQ on the contract. It would not only include pricing issues, but service, transportation, delivery, and future needs. If this information is not standardized, the chances of information asymmetry occurring are strong. The winner may not have full information on all aspects of the job and therefore not be able to complete the contract [8]. This can be a strong argument for using an intermediary to conduct the auction. Intermediaries perform the function of working with the company to ensure that all bidders have full information. Companies sometimes do not have the time or the expertise to perform the functions necessary prior to the actual Web auction. The costs associated with this service are still far less than the savings realized.

Information obtained during the Web auction itself is a key element in the bidding process. In a traditional RFQ, the bids are usually submitted using a sealed bid method with only the company knowing what the bids were. In this type of standard auction, the lowest bid wins. As we can see, the opportunity to experience the changes in pricing will strongly influence the outcome of the Web auction.

The price chosen to start the bidding process as well as subsequent bids can be immediately determined by all bidders. A bidder can sit on the sideline and wait until all bids are in or they can jump in and make a daring bid in an attempt to surprise the other bidders. When a bidder knows how many other bidders are involved and how they are bidding, it will affect their bidding behavior [8]. The possibility that bidders can coordinate prices without talking to one another by seeing pricing information faster in Web auctions must be guarded against. The auction is supposed to satisfy the value/need equation in pricing. The Web auction appears to enhance movement towards markets where traditional theories hold and providing a new stage that enables more efficient pricing.

7. Web auction intermediaries

Unlike auctions on the Internet where consumers buy products, B2B Web auctions are not conducted as a form of entertainment, but as a serious way to replace an inefficient way of exchanging goods and services. Fig. 1 provides a schematic depiction of a B2B Web auction model. Questions remain about what is the best model for conducting exchanges through Web auctions. Is it better to have an intermediary qualify suppliers and oversee the auction, or is it just as efficient for a company to conduct its own auction?

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Fig. 1. B2B Web auction model.
A Web auction intermediary is a company that has been hired by a firm to conduct an auction. The duties performed vary according to the needs of the client but in most cases include prequalifying bidders and setting up the online technologies necessary to conduct the bidding in a real-time environment. Intermediaries like Freemarkets and SupplierMarket act as procurement consultants and provide clients with a dedicated procurement advisor who gathers supplier requirements, writes and distributes the RFQ, sets up auctions, and helps with all other aspects of online trading [13].

There are several advantages with using an intermediary to perform the specialized functions for a Web auction including the development and maintenance of online trading platforms and supplier and buyer qualification. If a buyer or supplier controls the Web auction site, the site will be specialized to that particular company’s needs. An intermediary Web auction site can conduct auctions for a myriad of goods and services making it more cost-efficient. Also, the intermediary may obtain additional savings by spreading the costs of prequalification over a number of buyers and benefit from learning curve effects in screening suppliers. The intermediary could become an expert in conducting supplier investigations and provide due diligence reports to interested parties. By making a concerted attempt to increase the number of suppliers through an ongoing prequalification effort, the intermediary can reduce the possibility of collusion. The intermediary can stay focused on putting together the right buyers and sellers for a particular auction, thereby ensuring the greatest cost savings for clients.

With an intermediary assuming the role of auctioneer, there is less chance of buyer personnel favoring familiar suppliers. The relationship between the bidders and the intermediary is a second-tier relationship, thereby avoiding the element of familiarity leading to special favors. The large number of geographically dispersed suppliers who do not meet face-to-face but bid online may lessen the chance that bidders can coordinate their bids. However, over time it is possible that the suppliers become known to one another and many of the perils of standard auctions emerge and the likelihood of collusion once again raises its ugly head.

However, the situation changes dramatically if the intermediary is not an independent entity but a venture established by several suppliers or several buyers for the purpose of conducting Web auctions. Such joint ventures have the potential to exclude some companies and lessen competition, create a dominant exchange with too much power by requiring companies to use one exchange exclusively, and allow the companies to collude on pricing and take steps to set prices in unison [12]. In approving Covisint, the joint venture formed by Ford, General Motors, DaimlerChrysler, Nissan, and Renault to buy parts from suppliers using auctions, the Federal Trade Commission warned that it would monitor the venture for anticompetitive issues. Similar concerns may be expected to surface about the auction site being set up by merging MyAircraft.com, the site established by aerospace manufacturers Honeywell, United Technologies, BF Goodrich, and software maker i2 Technologies, with the exchange founded by American Airlines, Air France, British Airways, Continental Airlines, Delta Air Lines, Iberia Airlines, SairGroup, United Airlines, United Parcel Service, and software maker Ariba. Establishing safeguards to prevent anticompetitive behavior will become a necessity as more such ventures are formed.

The use of a specialist intermediary can lower transaction costs for the company because more sellers may participate, lowering the cost of the bids, and producing higher savings for the buyer. An established intermediary company may also have greater access to qualified suppliers. As specialists, they develop skills in performing functions like prequalification, acting as purchasing consultants, and conducting the Web auction so that the greatest value is realized.

8. Changes in channel relationships

As the traditional relationships between buyers and sellers change because of online transactions, some see B2B Web auctions as a threat to traditional channel relationships, while others see it as a major opportunity to form new and even stronger bonds among channel members. Several companies are attempting to maintain their traditional channel relationships by offering special Web auctions only to their preferred suppliers [9].

With the advent of the Web auction, companies no longer have to worry that dependence on one or a few suppliers may engender a situation where they cannot get supplies or the supplier raises the price. The buyer may confidently rely on sole supplier relationships if the scope for opportunistic behavior is attenuated by the availability of alternative suppliers on the Web. In effect, Web auctions may make some relational exchanges unnecessary and others to become highly relational without the negative consequences of such a relationship. In many cases where local suppliers were preferred, the boundaries of the market have expanded to include distant suppliers connected to the buyer in real time via the Internet.

Channel functions must still be performed to move products from conception to use, but the functions to be performed as well as the institutions that perform them are changing. However, where most companies strove to achieve long-term relationships with their suppliers or buyers, the Web auction now makes it feasible to reduce the number of relationships needed. Both channel length and width can be reduced by using Web auctions.

The Web enables access to a global market where suppliers are far more numerous. Access to more suppliers means greater competition and lower prices. Hence, channel relationships that relied solely on proximity or personal relationships may find themselves threatened. For compan-
ies to compete, they must adjust their business models to operate efficiently at the lowest cost. They must reevaluate their business with the knowledge that they need to add more value at a lower cost. Suppliers will always be an important aspect of the channel relationship, but with so many suppliers now available with a click and the dynamic pricing made possible by Web auctions, the traditional buyer–seller relationship is being redefined. A major challenge for companies today is to choose which relationships are worth saving and cultivating, and which relationships are not as important due to the proliferation of the Internet as a buying and selling tool.

One large area of B2B procurement is the purchase of MRO items. Inefficient procurement processes with regard to these items can cost businesses millions of dollars annually. Since the market for these types of goods is fragmented, most companies purchase from many local suppliers. The use of Web auctions for procuring MRO goods and services could streamline this process and save a company time and expense. The top 2000 companies in America purchase an average of US$400 billion of these types of nonproduction goods annually [14]. This is a large market where the relationship could be supplanted by the cost savings.

Many suppliers are fearful of this new situation of increasing competition. Through the use of Web auctions, markets have opened up that were previously too cost-prohibitive to access. The new kid on the block may be able to outbid the traditional supplier because the former has a lower overhead or a better way to use technology to lower costs. Incumbent suppliers feel threatened but other suppliers see Web auctions as an opportunity. This will affect the way a company buys in the long term.

In industrial procurement Web auctions, some companies are turning to Web auctions to reduce the role of channel intermediaries. These companies make the product and use Web auctions to go directly to the retailer, bypassing the wholesaler. GE was one of the first companies to shock the world when they severed many of their traditional supplier relationships [1].

9. Implications

In so far as the Internet represents the leading edge of the information age, Web auctions by connecting buyers and suppliers worldwide in real time move us toward the ideal of frictionless or free markets. The burgeoning use of Web auctions by companies to buy and sell products has important implications for managers and researchers. The Internet gives instant access to a multitude of suppliers and buyers and reduces the constraints to transacting globally. By helping to determine the true value of products, Web auctions facilitate exchange and the economic efficiency of transactions. Web auctions have led to the creation of new markets for previously unattainable goods and services and can aid companies in the disposal of excess inventory and perishable goods. Web auctions offer advantages to small and large companies alike.

How companies choose to carry out Web auctions will be interesting from a managerial and research standpoint. Many companies have chosen to take the process in-house and are seeing a large percent of savings by using Web auctions. Instead of investing in the technology required to build an auction site, companies can join one of many existing intermediary sites and pay a membership fee and/or a transaction fee (a percentage of the total amount bought or sold, usually in the 5–10% range). For more specialized procurement purposes, the use of an intermediary that has positioned itself as a specialist dealing in specific products and industries will reduce search costs and improve efficiency for purchasing managers and even influence the decision whether to make or buy.

Companies who are bidding for a piece of business can benefit from the transparency of the actual auction. An open format gives access to the bids of all participants. This can aid a company in the decision-making process of how low or high to position their bids. But it can also enable rivals to coordinate prices.

The use of Web auctions can reduce the risk of using a single supplier or only a few suppliers for a company. While many firms may choose to deal with traditional suppliers, many more are opting for the “open” bidding process afforded by the Internet. Interestingly, traditional bricks-and-mortar suppliers are moving to the Internet in increasing numbers. Channel structure may be expected to change with greater integration for some products and the emergence of new intermediaries for others.

Far more needs to be known about how firms are redesigning their business models to embrace the auction format. Empirical studies need to be done to examine such issues as the types of products that are most conducive to Web auctions, the auction formats suitable for different products, the bidding motivations of Web auction participants, etc. Many questions remain unanswered about Web auctions. At what point will a firm decide to use an intermediary to conduct an auction as opposed to bringing the function in-house? Is the Web auction creating reverse markets so that suppliers are now in a weaker position? Will suppliers participate in a second Web auction with the same buyer if they have not succeeded in winning the first? How are suppliers qualified? Are buyers really seeing vast cost savings in their procurement or are the costs of the capital investment in the equipment and technology needed to conduct an auction or the cost of using an intermediary eating away at these profits? These are only some of the areas that require further research.

Technology-aided buying and selling is sure to continue to make a difference in the structure of markets. The benefits of vertical integration will continue to erode as new and faster markets emerge. Both managers and academicians will benefit from an improved understanding of Web auctions.
10. Conclusion

The establishment of Web auctions as a tool to facilitate exchanges between buyers and suppliers is emerging as a new business paradigm. This article has examined a few of the far reaching aspects of this model, but many interesting aspects of B2B Web auctions remain to be studied.

By using new technology, companies and industries that have used standard auctions are now turning to the Web to increase their market. Web auctions of products like livestock and flowers are using sophisticated video techniques to display the product being offered for sale. The world is indeed becoming smaller when you think of how the Internet has affected all aspects of commerce.

The differences between standard auctions and Web auctions are many and varied. There is no actual physical place in a Web auction. A Web auction also ends differently. There are many ways to extend or end the bidding with extra time allotted for tied bids being the most popular. Increasing the time allotted could affect the outcome of the auction by allowing last-minute bidders to enter the game.

No matter how you look at it, B2B Web auctions are the wave of the future. Web auctions will be analyzed until the questions answered by traditional economic theory are answered in the virtual world. The next few years will show us the types of auction that survive, the industries where they will play an important role, those that will be controlled by suppliers, those controlled by buyers, and those where new specialist intermediaries will emerge. It will show us clearly which new business paradigms are here to stay.

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