

**A Review of Online Auction and It's Pros and Cons**Rashesh G Chothani¹, Nainesh A Patel², Asagarali H Dekavadiya³, Punit R Patel⁴¹UG Scholar Department of Information Technology, Veerayatan Group of Institutions, rgc0821@gmail.com²UG Scholar Department of Information Technology, Veerayatan Group of Institutions, pnainesh74@yahoo.in³UG Scholar Department of Information Technology, Veerayatan Group of Institutions,
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Abstract — Online auction are among the most significant e-business applications. Their impact on trading in business to business, as well as in the business to consumer and consumer to consumer field. Day to Day use of Online Auction is increases. Customers are moving toward to online Auction for purchasing and selling items. Quite a few companies have started projects of their own, trying to improve their purchasing and sales channels. In this paper, we discuss about auction/bidding system and its type. We also discuss their problems occurring, and then mainly focus on online auction as possible solutions.

Keywords: Online Auction, E-Commerce, Bidding, competitive bidding, online escrow, Auction

I. INTRODUCTION

Auction is one type of economic activity in which is being performed by number of people's every day. But auctions also have a long history that covers many area of activity. For example, the U.S. government uses auctions to sell Treasury bills and timber and oil leases, Indian government uses auction for selling "Telecom spectrum", one more example is to sell rights for mines also uses auction.

The word "auction" is derived from Latin word "augeo" its meaning is increase. The auction is containing very long history. It has been recorded first time in the year 193 AD, when praetorian guards had an entire empire of "Rome" to sell. After that in year of 500 BC the auction was held to sell women was noted and after that is common for to sell good by auctioning. [1]

II. TYPES OF AUCTION:

The days passed now and with passing time the new methods are used to do auction. These methods of auctions are divided into number of types. That is based on their working and way it held.

- ❖ English auction
- ❖ Dutch auction
- ❖ First bid sealed bid auction
- ❖ Second price sealed bid auction

A. ENGLISH AUCTION

These auctions are carried out by real time interaction. That means bidders present either physically or virtually in auction. The seller gradually raises the price, bidders drop out until finally only one bidder remains, and that bidder wins the object at this final price. Oral auctions in which bidders shout out prices, or submit them electronically, are forms of ascending-bid auctions. [2]

B. DUTCH AUCTION

This is also an interactive auction format, in which the seller gradually lowers the price from high initial value to low until the first moment when some bidder accepts and pays the current price. That bidder wins the object. In this process the seller or auctioneer shouts out price gradually reducing. These auctions are called Dutch auctions because flowers have long been sold in the Netherlands using this procedure. [2]

C. FIRST PRICE SEALED BID AUCTION:

In this kind of auction, bidders submit simultaneous “sealed bids” to the seller. The terminology comes from the original format for such auctions, in which bids were written down and provided in sealed envelopes to the seller, who would then open them all together. The highest bidder wins the object and pays the value of that bid. [3]

D. SECOND PRICE SEALED BID AUCTION

Bidders submit simultaneous sealed bids to the sellers. The highest bidder wins the object. But difference between first bid and second bid is that winner of highest bid have to pay the value of the second-highest bid. These auctions are called Vickrey auctions in honour of William Vickrey, who wrote the first game-theoretic analysis of auctions. Vickrey won the Nobel Memorial Prize in Economics in 1996 for this body of work.[3]

Auctions with common values introduce new sources of complexity. As example, let's start by supposing that an item with a common value is sold using a second-price auction. Is it still an important strategy for bidder i to bid v_i ? In fact, it's not. Let's see for why this is, we can use the model with random errors $v + x_i$. Suppose there are many bidders, and in that each bidder bids her estimate of the true value. Then from the result of the auction, the winning bidder not only receives the object, he/she also learns something about his/her estimates of the common value that it was the highest of all the estimates. So in particular, his/her estimate is more likely to be an over-estimate of the common value. Moreover, with many bidders, the second-place bid which is what he/she paid is also likely to be an over-estimate. As a result she will likely lose money on the resale relative to what she paid. This is call “**winner's curse**”. [4]

III. COMPARISON OF AUCTION:

	<i>English auction</i>	<i>Dutch auction</i>	<i>First price sealed bid auction</i>	<i>Second price sealed bid auction</i>
Pro	Bidder shouts bids till their bid is highest bid. So it benefits to seller .	Seller shouts gradually lower price till any bidder is not ready to get that good. So its benefits to bidder .	In this, bidder writes the bid price and then send that to auctioneer in envelop. So good for seller than Dutch auction.	Same process as first price sealed bid auction but it benefits bidder.
Cons	For bidder it is not so beneficial.	Here, seller shouts price gradually low step by step. So due to this seller gets loss.	It is not so good for bidder because he writes his bid price in closed envelop. It may be overpaying and overestimate possible.	In second price if over estimating done than also bidder do not get much loss because he has to pay second highest bid amount.

We has seen all these auctions and compared with each other but from this all auction the English auction is best from all the auctions and frequently used. But in current days the first price sealed bid auction is used too in the big industries. As above I described how actual auctions work. But, these auctions have some problems like time consuming, reach to the venue of auction etc. These problems are resolved if we use this auction process different way like virtual auction .

IV. WHY TO GO FOR ONLINE AUCTION?

As we seen the classical auctions have some unconsciously constrained by the physical limitations. This all auctions use some game theoretical models. These game theoretic models are typically used for analyzing auction of a single item and the objective of the analysis is to characterize **Nash equilibrium** (Nash 1950) for the auction. Nash equilibrium is the balanced state between different participants. [4]

Unfortunately, the results for single-item auctions do not apply to multi-item auctions. Further, the game theoretic approach is very difficult and, often, analytically intractable with a large number of bidders bidding for multiple units. The number of cases that need to be examined grow exponentially both with the number of items and the number of bidders.

Perhaps, due to inability of applying game theoretic approaches to such auctions, several researchers such as Lee and Mehta, 1999; Vakrat and Seidmann, 1999; and Pavlou and Ba, 2000, have taken an empirical approach in analysing the effectiveness of online auctions. Vakrat and Seidmann, 1999, developed a stochastic model of bidder arrival process to

make many decisions. [5] Due to the following reasons the entire process of auction is required to be upgraded. And in the time of technology what is better than the auction held on internet.

- ◆ **Inconvenience:** In this, the bidders have inconvenience, because they have to go to particular place where auction is being held. And after register there they can take part in the auction.
- ◆ **Don't have full information:** In this, bidders don't have much information regarding that goods item, seller, other product of that seller etc.
- ◆ **Time consuming:** This process is time consuming because for participate in the auction auctioneer need to go at venue of auction. And there the entire process of auction is being done that consumes lots of time.
- ◆ **Participate in single auction:** Bidder can participate in a single auction at a time.
- ◆ **Limited geographical area:** This auction covers limited geological area. So bidder, those took part are mostly nearest people.
- ◆ **Complexity is high:** This process contains paper work so this is very complex to handle.

V. OVERVIEW OF ONLINE AUCTION

The earliest Internet auctions appeared in 1993, by auctions based on Internet news groups (Lucking-Reiley 2000). In 1995, the first Internet auction websites opened, with OnSale (www.onsale.com) and eBay (www.ebay.com) starting operations. Today, there are hundreds of websites available to online auctions. An incredible variety of goods and services is auctioned on the Internet. Collectibles like stamps and coins, computers, cars, and even locomotives and machine tools also found on auction sites. [6] Today currently there are number of website available for auction, from those website some are as listed below.

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| • www.ebay.com | • www.bidderboy.com |
| • www.ubid.com | • www.indiaauction.com |
| • www.obid.com | • www.paisabids.com |
| • www.jeetle.com | • www.realbids.com |
| • www.biddingbazar.com | • www.99bids.com |

Online auction is fast growing exchange medium for goods item via ecommerce technology. Sellers and buyers located around the world now can auction of various items. Auction is held when there is number of buyers available for single item or number of seller available for single buyer. According to this is there are many seller and single buyer than it is call “reverse auction”.

VI. BENEFITS OF ONLINE AUCTION:

There are many advantages of online auction those are as given below.

- ◆ **Convenience:** You can buy an item even if you are in your house or in the office, there is no need to go any place for participate in auction.
- ◆ **Access of full information:** The buyer can get full chance to check all the details about item on sell. You can even review the terms and conditions of payment and feedback rating of seller. And also possible to get details of other items in sell by the same seller.
- ◆ **Time saving:** It saves time in many ways like you don't need to go to any place for participate in auction and get item from home.
- ◆ **Multiple choices:** The bidder has multiple choices for items because from single location you can participate in multiple items auction. And also have a choice to view same items or related items.
- ◆ **Wide geographical area:** It covers large geographical area. It means you can take part in auction even that items seller is from out of country.
- ◆ **Reduce paper work:** This auction held on internet so it reduces the paper work.
- ◆ **Reduces complexity:** This is also reduces the complexity. [7]

VII. DISADVANTAGE OF ONLINE AUCTION

- ◆ **Fakes:** The item's description given in site may not match with actual item. The current value of item may be higher than current market value.
- ◆ **Scams:** In this the seller or buyer both may fake. Due this, possibility that customer cheated by sellers and vice-versa. Example- bidder bids higher but if ID is fake then how you will sell that item to that bidder and there is less scope that he will claim for the item.
- ◆ **Data privacy issue:** There may be possible that the private data of you like bank account number, password, phone number etc. may get spread.
- ◆ **Transection management:** The transection of the item is complex and long process. It's like first get payment by online transection than send that item to the winner and after that taking feedback.
- ◆ **Overpaying :** A lot of people carried away in bidding contest that they tends to pay over the odds just to get the item that they want. [7]

VIII. CONCLUSION

This review paper indicates that interesting developments are happening in both the practice and research of online auctions. This indicates dynamic pricing mechanism such as online auction performs important part in mercantile process for seller and buyer both. Here we seen types of auction process, how that process performs, it's pro and cons etc. Earlier auction process was time consuming and now its improved to online auction. So it's advantages and disadvantages are given. We firmly believe that the emerging practice and research in this area has high inductive value and will lead to a significant enhancement to the body of knowledge dealing with dynamic pricing and auctions.

REFERENCE

- [1] <http://en.wikipedia.org/wiki/auction/>
- [2] Jarrod trevathan ,“Privacy and security in auctions”, James Cook University, 2007
- [3] <http://www.cs.cornell.edu/home/kleinber/networks-book/>
- [4] Paul Milgrom, “Auction and bidding : A Primer” ,Journal of economic perspective-volume 3, summer 1989
- [5] Ravi Bapna, Alok Gupta, Paulo Goes, “Replicating Online Yankee Auctions to Analyse Auctioneer's and Bidder's Strategies” ,april 2001
- [6] Edieal J. Pinker, Abraham Seidmann, Yaniv Vakrat , “Managing Online Auctions: Current Business and Research Issues”, Management Science © 2003 INFORMS, Vol. 49, No. 11, November 2003
- [7] <http://www.jumboauction.com/advantages-and-disadvantage-of-onlin-auctions.html/>