



**Research Article**

## **A COMPARATIVE STUDY ON THE EMERGENCE OF ONLINE AUCTION OF SEIZED VEHICLES IN THE PUBLIC SECTOR**

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### **ABSTRACT**

The main objective of this proposed idea is to discuss the changes that can be brought in the existing traditional auction system taking place in the public sector and how it can be managed and improved better. The existing form of the auction taking place in the current market regarding the sale or bidding of seized vehicles by government officials is outdated. The vehicles which are seized as a result of smuggling or engaged in some other illegal activities are sold by conducting an auction at a particular place and time. Thus, the participation is low and only a few people get to know about the auction. This paper has proposed a web application called "Bid Chaser" written in PHP language where users can participate in the bid under the direct observation of the government and thereby eliminate the middlemen. The emergence of this new web application can bring a great change in the current market.

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### **INTRODUCTION**

The online auction has become one of the fastest-growing electronic businesses on the internet. People all around the world started to participate in online auctions to bid for products or services they are interested in. Some of the first online bid platforms were <sup>[1]</sup>Ebay.com and Onsale.com, where people could participate in the bid. The only difference was Onsale.com acted themselves as the seller whereas, Ebay.com became the first auction site to support person-to-person transactions. Hence, Ebay.com gained more popularity and emerged as one of the largest e-commerce platforms in the late 2000s.

The idea of creating an online bid platform came when it was observed that the government sells the seized vehicles through intermediate companies and the process took to sell the bid vehicles is very slow. Therefore, the companies mostly demand the major profit for the transaction. The auction which is held is also not under the direct observation of the government. <sup>[1],[5]</sup>State governments like Tamil Nadu and Kerala have conducted the live auction in different parts of the districts but the participants have to pay a small amount to attend the auction. The details like venue or occasion, bid date, vehicles, etc are published through newspapers or magazines and as a result, the public reach is very low.

**Proposed Work**

The online platform for bidding which I am planning to develop called "Bid Chaser" runs on PHP as the frontend and MySQL as the backend application. The website will be

operated by an administrator and who will be responsible for all the operations in the website like posting advertisements provided by the government authority, granting permission to the users who requests the bid, confirming the bid prices, and letting the authorities know, approving the vehicle uploaded by Authority and they can also view all the complaints and detailed raised by the buyers and remarks made by the authorities. The authorities from the government side will also have access to the website and contribute a huge part to the whole system. They will have to register to use the services and upload the details of the vehicle that are available for the bid. They will be also responsible for confirming the bid amount and bid date passed by the administrators and confirming the payments made by the user. The complaints raised by the users will be handled by the authorities. The buyers who wish to join the bid will have to sign up and can bid for different vehicles approved by the admin. Once the bid is done it will be in the queue of admin and if they approve, it will be in queue with the authority and the payment is confirmed and the transaction is done if the authority approves. The buyer can raise complaints after the purchase if he is not satisfied.

The existing system has not yet changed to online bidding. It has been taking place face to face. The bid date, vehicle, and other details like venue or occasion are published through newspapers or magazines as a result, the public participation is low. The government sells the bid vehicles through intermediate companies thereby, the process taken to sell the bid vehicle is slow and they demand a major share of profit for

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the transaction. The companies are also not under the observation of the government and their participation is less.

The seized vehicles are either kept on-site or some of them are used by the police forces or other agencies but some seized vehicles like trucks or tanks are kept idle which are either depreciated or left untouched. The seized vehicles also occupy more space and shelter thereby, the authorities are finding a way to get rid of the vehicles either by selling or placing them on bid. Before the bid takes place, the participants are charged a thousand rupees to take part in the bid. This has resulted in low participation. The current scenario is different as India has not yet changed to online bidding. The countries like US and UK have already started selling seized vehicles online.

The emergence of an online bid platform like "Bid chaser" can eliminate all the limitations and problems faced in the existing system. We can expect an increase in public reach as the bidding is done online and a great number of participants. We can also eliminate the intermediate private companies where many of them charge a commission after the bidding is done. Most of the time, where the auction is done face to face, the buyers are required to contact the lenders, and the chances of making malpractices are high. If the bidding is done online, it will be under the direct control of the government and they too can observe. Cheating or malpractices cannot be done. The process taken is very fast and accurate. The users can also get the best bid from this space and one of the biggest advantages is that there are no time constraints as it is online 24x7. The real-time bidding will also be shown while bidding and only the verified accounts allowed to participate in the bid.

## LITERATURE REVIEW

[8] The Internet has become an important factor in our daily life even for communication and interaction between people, organizations, governments, etc. It has also evolved to many extents and people were exposed to many opportunities through the use of the internet such as business through the internet like shopping and other services. Online buyers especially started to find products and services which are more reasonable and also save cost and time.

The online auction has played a huge part in the lives of online buyers to get products at a reasonable price. There are many types of auctions such as English auction, Dutch auction, First price sealed-bid, and second-price sealed-bid auctions. Online buyers mostly prefer the English way of the auction but the possibility of shill bidding is high.

To avoid shill bidding, the auction system requires information about the items to apply machine learning algorithms to accurately predict the end bid price. The information about similar products can be extracted online and can be used in the learning process. The end bid price which is predicted can be used against the bid placed by the bidder within a certain time interval. After the process, if the calculated bid value is greater than the threshold, it will be called a shill bidding.

[9] Online auctions have become one of the most popular and emerged as a platform for people to buy and sell products or other services on the Internet and other e-commerce platforms. The paper discusses various auction models, implementations, and also security issues involved in online auctioning.

The evolution of e-commerce technologies has given rise to the development and various Internet-based auction

frameworks and servers. Some of the models were categorized based on their features and characteristics which are:-

### **Based on a Single attribute or Multi-attribute mechanism**

Multi-attribute auctions work on automated negotiations based on several attributes like price, quality, etc but it is more complex compared to single attribute auctions. However, the overall utility achieved is higher when compared to a single attribute.

### **Based on Single or Multiple item auction**

The multiple item auctions are adapted if there is a demand for the products and also depend on the number of buyers interested. The buyers are also able to bid for a finite number of goods and services. This type of model is worked based on fixed or dynamic markets and seller control scenarios. The pricing strategies are also developed under a developed market simulator.

### **Based on Auction Sessions**

A multi-stage auction framework usually consists of four stages. At the first stage, the model is used for issue identification and range specification and the last stage is related to the outcome and strategic analysis. They are used to show preferences systematically.

### **Security Issues**

One of the critical issues faced in an online auction is the security of data and other information. It is necessary to protect the consumer's identity, data, and other information. There is also a risk of fraud when the auction is conducted peer-to-peer. Some specific measures have been taken by online platforms like eBay to protect the user's identity, ban sellers from buying their items, provide a feedback form to the customers, etc. The other security features which can be included are multicast secret sharing, digital cash, verifiable signature sharing, etc.

[10] Online auctions have emerged as one of the most significant ways of doing business and have also gained rapid expansion and popularity over the years. Due to geographical boundaries, presence, time, and small target audiences faced in traditional auctions, online auctions have broken down all the limitations and have gained a lot of reach among users on the internet.

Before the emergence of online auctions, other auctions took place face to face. Some of them are:-

- English auction
- Dutch auction
- The first price sealed bid auction
- The second price sealed bid auction

These classical auctions have their limitations as they are conducted live and some other factors include inconvenience where the bidders might not be able to visit that particular place where the auction is being held due to geographical boundaries. The process is also time-consuming and the paperwork for the process is too complex to handle.

Some of the benefits of online auctions include inconvenience which means buyers and sellers from all around the world can participate in the auction without geographical boundaries as it is conducted online. It is also time-saving and they can also

participate in multiple auctions from a single location. It also reduces paperwork and complexity.

Some of the disadvantages of online auctions include fake descriptions where the item which is on sale might be higher than the current market value etc. Some other factors include data privacy issues and other scams etc.

## CONCLUSION

The online auction has shown remarkable progress on the internet over a decade as it breaks down the barrier and physical limitations of traditional auctions such as geographical boundaries, time, and space. A remarkable number of participants has been observed in online auctions when compared to the traditional auction. The idea behind selling the seized vehicles by the government through a web application called Bid Chaser can help the government to easily manage and overcome all the limitations faced in the existing traditional system.

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