

AN EFFECTIVE ONLINE AUCTION SYSTEM

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ABSTRACT

Aims: Online auctions are among the most influential e-business applications. Although there have been considerable efforts in setting up market places, online trading still lays in its early stages. Quite a few companies have started projects of their own, trying to improve their purchasing and sales channels. **Materials and Methods:** The most impressing concept of Internet market places is the conduction of online auctions. An online auction system holds online auctions for various products on a website. **Results:** It's place for buyers and sellers to come together and trade almost anything. **Conclusion:** In this system it consists of a web-portal where registered users can propose new auctions, purchase and place bids in order to buy the items on auction.

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KEY WORDS

Auction, Bid, Buyer and Seller,
Bid shielding, shill bidding, Web-Portal

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INTRODUCTION

An *Auction* is Latin work which means augment. Auction is a bid, a method of selling; buying and services offered take place. Online Auctioning System has several other names such as e-Auctions, electronic auction etc. The requirement for online auction or online bidding can be more precisely specified by the client. Online Bidding has become more wide spread in all sorts of industrial usage. It not only includes the product or goods to be sold, it also has services which can be provided. Due to their low cost this spreading out made the system to grow. Bidders can be maintained in a single database according to the preference, and they can be monitored. User's data can be maintained in a confidential way for validity and integrity of contractual documentation. Multiple bidders can be communicating with a great ease. This system allows multiple bids by single users.

The Objective is to develop a user-friendly auctioning site where any kind of product can be auctioned and provide value-added services to the bidders and the sellers.

Literature survey

Well-settled principles of law, such as those surrounding fraud in its various forms, have long maintained their vitality, adapting to changes in the legal and business environments through judicial and legislative understanding and intervention. Many of these changes have manifested themselves in the world of commerce [1]. The creation and growth of the Internet has resulted in significant changes in the way people engage in commerce. The increasing popularity of the Internet as a medium of commerce has generated an increase in Internet fraud, raising new and difficult legal issues in areas including online auctions [2].

We explore and analyze the structure of Internet auctions from a logical and an empirical perspective. Such web-based auctions are rapidly rising as a mercantile process of choice in the electronic marketplace. While traditional auction theory focuses on single-item auctions, we observe that a majority of on-line auctions are multi-item auctions. A significant donation of work is the theoretical derivation of the structure of the winning bids in multi-

item progressive online auctions. Additionally, for comparative purposes, we explore the structural characteristics of alternative multi-item auction mechanisms proposed in the auction theory. We derive hypothesis based on our analytical results and compare two different types of auction mechanisms. We test the conventional auction theory assumption regarding the homogeneity of bidders and present the first ever empirically derived classification and performance-comparison of on-line bidders. We test our hypotheses using real-world empirical data obtained by track a premier web-based auction site. Arithmetical analysis of the data indicates that firms may gain by choosing alternative auction mechanisms. We also provide directions for further exploration of emerging but important dimension of electronic commerce [3].

We have recently seen a marvelous number of auctions conducted over the Internet. This form of electronic commerce is rapidly growing, and it is projected to account for 30 % of all E-Commerce by 2002. Using actual bidding transaction data from 324 businesses-to consumer online auctions [4], we analyze the bidder's arrival process during each auction. We find that most bidders like to sign on early in the auction; typically, 70 % of the bidders sign on during the first half. Our statistical analysis reveals that the minimum initial bid is negatively connected with the number of bidders per auction, while the number of units offered and the length of the auction are positively connected with the number of bidders. We also present a model for estimating the expected price as a function of the number of bidders, the mean and variance of the private valuation distribution, and the number of units to be sold in the auction [5]. Our analysis shows that increased dispersion in the bidders values may either increase or decrease the auction price, depending on the bidders overall arrival process, the length of the auction, and the number of units. We calculate the best auction length and show that an auction's profit is a uni-modal function of its duration and the number of units [6].

Problem Statement

Auctions are used to sell many things in addition to antiques and art. All round the world there are auctions of commodities such as tobacco, cattle, racehorses and just above anything elsewhere there's market of multiple people interested in buying the same thing that's the key to auction-a bunch of people who are interested in buying the same object, and taking turns offering bids on the object. The right to buy that object will go to the highest bidder; It is called as traditional auction [7].

While update of traditional auction is online auction, companies from various industries are moving to online auction say eBay, asteinrete, on sale provided a worldwide platform for bidder by getting it to masses. In these websites they create their own auction by adding their own product to auction. Buyer can bid the product which he/she can win the product if he applies the winning bid [7-9]. The following are some of the disadvantages of existing auction system

- Traditional method is time consuming process
- Date and time plays an important role, as they operate for few hours only.
- There is no separate module for sellers to upload their own Product in online auction system.
- Bid shielding
- Shill bidding

SYSTEM DESIGN

System architecture is the process of defining the components, modules, interfaces and data for a system to satisfy specified requirements. The following is the architecture for the system

Module Description

- Authentication Module
- Buyer Module
- Seller Module
- Administrator Module

Authentication Module

Authentication module is the module where the user gets authenticated. Authentication is otherwise known as validation. In this module the buyer/seller first gets registered in order to proceed further. Buyer and seller have separate authentication procedure. If the provided information does not meet the criteria, the user is not validated.

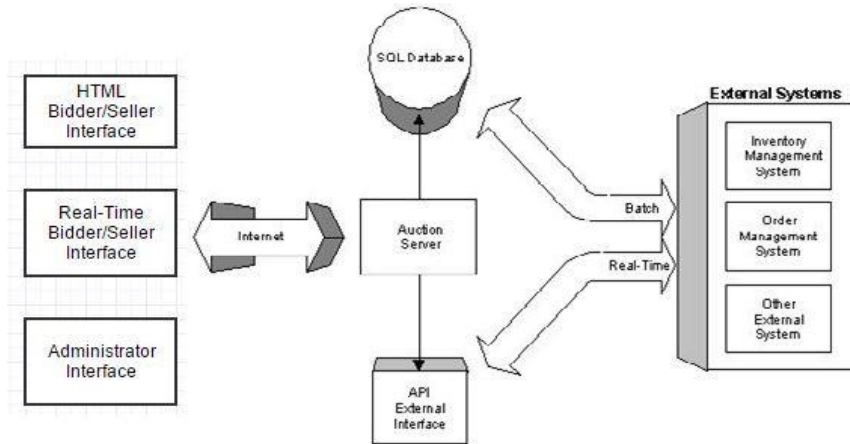


Fig.1. Architectural Diagram

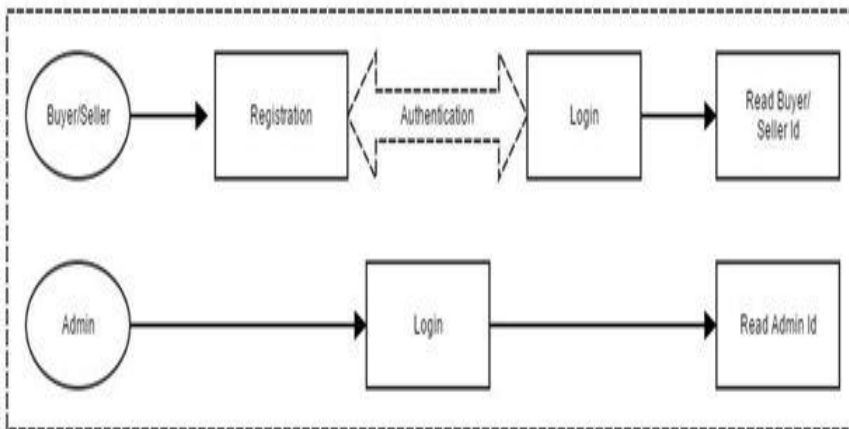


Fig.2. Authentication Module

Buyer Module

In this module buyer can visit the site. In order to apply the bid the buyer has to login to the system and must buy bid points in order to bid the product. If the buyer wishes to buy the product he can apply the bid. If the bid is unique and large the buyer will get the product. When the buyer won the product he has to make payment to the system.

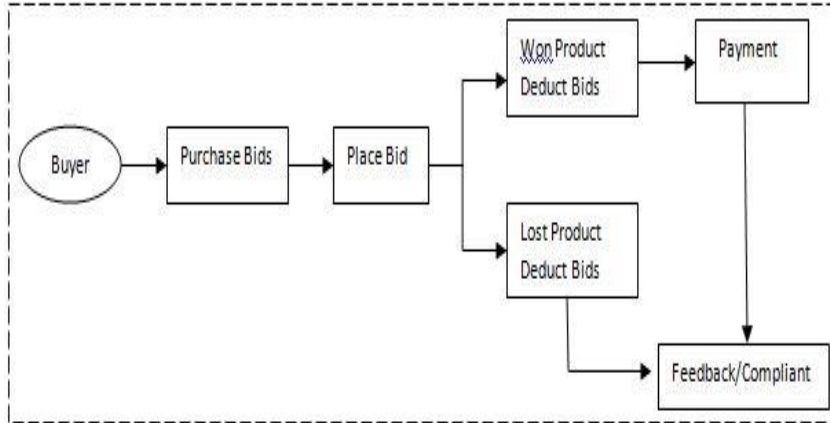


Fig.3. Buyer Module

Seller Module

In this module seller has to login to the system and register his product to the system for auction. When the auction is completed administrator informs the details of buyer so that seller handover the product to the system. Seller receives the payment from the system.

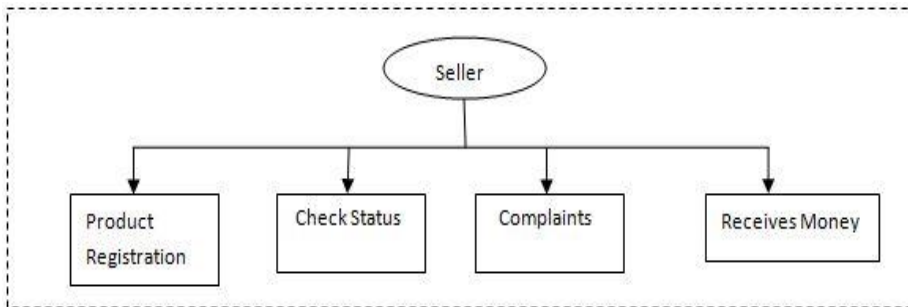
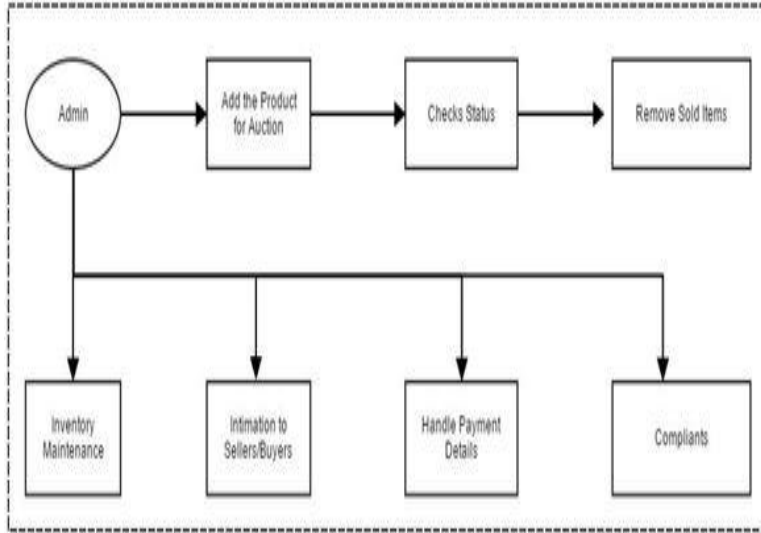


Fig.4. Seller Module

Administrator Module

Admin module does all the task that enables the user to bid for an item effortlessly. Admin will create and update the categories. Under the categories we can find different items that are up for the auction. Admin will take care of all the information regarding the items under each category. Admin will be responsible for all the actions done by the users. Admin can block the users and can change privileges of the selected user. Admin can delete the categories and can delete the items that are up for the auction. Administrator is responsible for the inventory maintenance.



. Fig.5.Administrator Module

RESULTS AND DISCUSSION

The existing system has no option for selling their own product in auction and traditional method is time consuming process where date and time plays an important role, as they operate for couple of hours. To overcome this, system creates a way for sellers to upload their product for auction. There are no time constraints in this system like traditional one. Buyers who are applying bid can be monitored by the administrator. Buyer can place more than one bid at a time for multiple products. By this system we can overcome the problems of Bid Shielding and shill bidding. Buyer can easily compare the bid which is applied for a particular product.

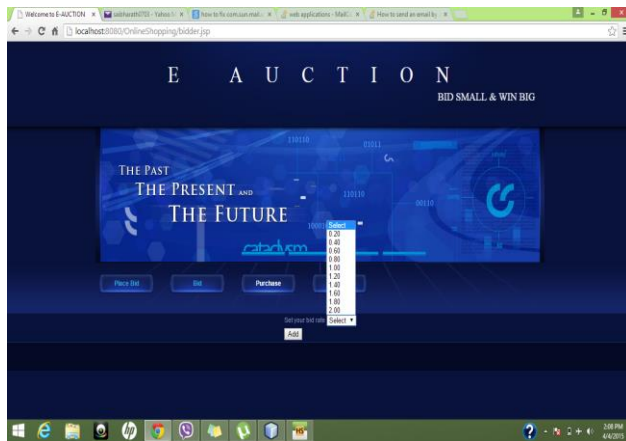


Fig.6.Snapshot Representing Restriction of Bid shileding

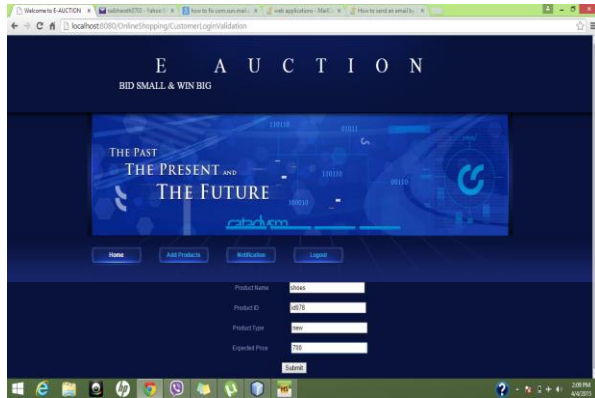


Fig.7.Snapshot of New Seller Module

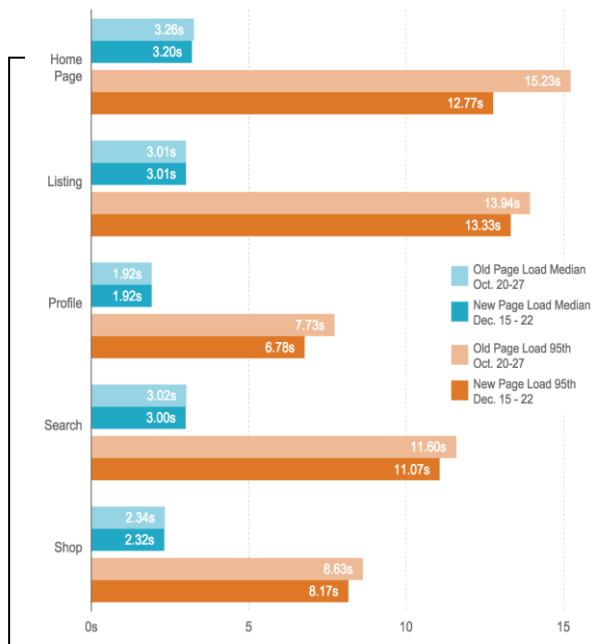


Fig.: 8.Front – End Performance Analysis

CONCLUSION

Online auction is a system where we participate in a bid for products and service. This auction is made easier by using online software which can regulate processes involved. There are several different auction methods or types and one of the most popular methods is English auction system. This system has been designed to be highly-scalable and capable of supporting large numbers of buyers and sellers in an active auction.

CONFLICT OF INTEREST

Authors declare no conflict of interest.

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