The System of Auctioning Over the Internet: A Review

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Abstract

Online auctions are digital, reverse, virtual, or auctions. Internet-connected devices can access the online auction. In-person and online auctions have variable bidding and marketing rules. The researcher has analysed the online auction's importance. Show beyond doubt, the researcher is to use different diagrams, and figures regarding the research topic. On the other hand, in this literature review section, the research is presented different author names and their journal article to argue. As a result, it has been found, a lot of information regarding the research topic and its importance in the current time. The study used a research philosophy followed by the positivism method, a deductive approach to research, and the entire research design was based on the Explanatory research method. The primary data collection source was the survey method, and the sample size was 50 respondents chosen using a simple random sampling method following the quantitative research method. MS Excel was used to analyze the data, which included all charts and diagrams. From the discussion it has been found that the online auction has so many benefits like being cost-effective, money-saving, easily accessible, open for all, having sufficient information, and having no bar of time, so it's trending nowadays but it also has some limits like data security and cybercrime.

Keywords

Auction, bidding, digital auction, digital payment, internet auction, offline auction, online auction system, traditional auction system.

INTRODUCTION

The online auction consists of a digital auction, reverse auction, virtual auction, or auction. The auction can be part over the internet and is accessible by connecting to internet appliances. Furthermore, in-person auctions as well as internet auctions are available in a combination of designs with variable bidding and marketing rules. Throughout the analysis, the researcher is to discover the importance of the online auction now. It is discussed that in different nations of agricultural markets, auctions are an essential element of the marketing process. As a result, historically speaking, they have been the most suitable and productive method to obtain rid of goods, especially perishable things. On the other hand, the researcher will critically argue about the research topic with the use of several topics in the literature review section. Furthermore, in the materials and method section, the researcher is to use primary quantitative data collection methods, use positivism research philosophy, deductive research approach, explanatory research design and more. Again on the other side, the researcher will use the graph chart, and diagram to conduct this research topic "*the system of auctioning over the internet*".Moreover, through in-depth analysis, the researcher will present the significance of the online auction in the 21st century.

REVIEW OF THE LITERATURE

"*Joint Auction-Coalition Formation Framework for Communication-Efficient Federated Learning in UAV-Enabled Internet of Vehicles*". As per the investigation, the researcher is to find out that, the "Internet of Things" (IoT) can reach a potential market length of around $1.1 trillion by end of 2023. Throughout the investigation, the researcher is to use the "FL model", "UAV Energy Model" and a "joint auction-coalition formation framework". Whenever, as an analogy to the direct connection between the IoV elements and the "FL server", the "UAVs support" improving this connection by declining network losses which might be due to the specified assets and power of the IoV elements [13].

"*A Task Offloading Solution for Internet of Vehicles Using Combination Auction Matching Model Based on Mobile Edge Computing*". The researcher is discuss in the paper the MATLAB 2016a platform. Therefore, this simulation of outcomes mostly influences the CPU cycles which are required for the calculation task. To understand this topic, the researcher is to use a network model, transmission time model, and CPU cycles. Moreover, this analysis has supposed that the number of users is around 500 and many users are to follow offline data and notice standard distribution with an implied significance of 10MB [16]. For example, the "Internet of Vehicles" (IoV) is a standard software of the "Internet of Things" which is part of the automobile industry. Innovative technology is changed the automobile industry from the previous years.

"*Applications of Auction and Mechanism Design in Edge Computing: A Survey*". The research has thoroughly introduced and examined recent actions on the software of "auction-based mechanisms" for "Edge Computing". The researcher is to use auction theory, The "MEC network model", the "System model", and "hierarchical strategies" to understand the key benefits of every computing paradigm [14]. The researcher has demonstrated detailed examinations, investigations and comparisons of the methods using

"auction-based models" to resolve different resource allocation-related problems in "edge computing" (EC). According to the current data from Gartner, limited business data can be induced at the border of the web instead of the conventional databases by 2022.

Auction-based Data Transaction in Mobile Networks: Data Allocation Design and Performance Analysis". At present, "mobile networking traffic" is undergoing massive development as the effective penetration of devices, Network 2.0 and many apps with strong 10 MB needs. Therefore, the researcher has indicated that per person used extensively 5 GB of internet every month in 2020 [5]. Through, Networked auction model, the Mobility model helps to simulate outcomes for the networked internet transaction strategy. It has also demonstrated that the forecasting knowledge of "data bidders" activity needs to enhance the revenue per "data auctioneer" effectively.

Bidders' Responses to Auction Format Change in Internet Display Advertising Auctions".In the investigation of this debate, the researcher has presented that digital advertising is rapidly increasing in this digitalised era as well as in 2019 it reached $129 billion. Quality of use of internet show advertising auctions [6]. Therefore, the researcher has examined the "structural model" of bidding utilising granular and the results of an auction structure modification from "second-price auctions" (SPAs) to "first-price auctions" (FPAs). Through assessing the case study, the researcher encounters that the moderate expense rises directly back to the layout difference from "SPAs to FPAs".

EMPIRICAL PERSPECTIVES ON AUCTIONS". By analysing this discussion, the researcher is to use Tests of Theory and classical theory of auctions. It is believed that a large number of bidders in an auction is originating externally, in truth, bidders determine whether or not to partake in an auction. Therefore, the benefit of auctions to trade goods or products online started nearly as before as the development of the "World Wide Web", with Onsale and eBay and more [7]. Furthermore, eBay has become a familiar digital auction web, with 423 million articles for dealing with 18,000 varieties in 2001.

Price Premiums Prediction using the Classification and Regression Trees (CART) Algorithm in eBay Auctions". Multiple digital auctions for similar products or goods are the emphasis of "Dynamic Price Forecasting in Simultaneous Online Art Auctions," a model in which computational requirements and knowledge play a main role. With above 168 million active consumers and around 20 million active people and billions$ in transactions, eBay is number one among the leader in e-commerce and internet auctions utilised to market goods and services across the world [9]. Even though the CART algorithm has relied on a cheap algorithm, a regional optimum strategy that considers the regional optimum authorities to an international optimum, operating different techniques.

Mixed Mechanisms for Auctioning Ranked Items". Auctions are among the oldest methods of marketing goods and services. Each booming bidder can produce a cost that is a variety of graphs of their request and different categories of the list of bids. The number of parameters is similar to the number of articles for auction [1]. Therefore, the researcher is to demonstrate as a potential fault, the figure of the linear varieties in this clan are sensitive to the pair of frameworks and the power of the normally ranked object.

"Bid Coordination in Sponsored Search Auctions: Detection Methodology and Empirical Analysis". It is difficult to predict this continuing trend's leading repercussions. Again on the other side, SEMAs and ATDs also can lead in the operation of this demand by facilitating the involvement of advertisers and enhancing the rate of publicity that has been received by buyers. The collection of computer data derived from internal databases is among the most popular search engines [3]. Functioning with "search engine" recording is a notable option, while confidentiality deals with set restrictions on the reporting privilege of researchers. Moreover, the counted values could be used to assess the influence of potential transformations on the auction layout.

MATERIALS AND METHODS

The researcher of this study used the positivism philosophy to conduct this project and it helped the researcher enormously to gather data and information. The positivist perspective is that the researcher can be a neutral observer of many external activities which were explored during this project [8]. It is a fact that the researcher's biases and preferences might influence many findings and interpretations in various ways which is why positivism philosophy brings a more objective approach to this study to ensure that this research could be used in future, so it is important to have a positivism approach [2].

The deductive approach includes a hypothesis and working backwards to analyze the facts and evidence which support the argument. This approach is also more time efficient than any other approach and it is also connected with the core concept of this research which helps the study to have a strong foundation in terms of research [12]. This research is used to get an idea of system auctioning over the internet to make a review on it. This approach helps the study to collect the information efficiently and it also allows the chance of analytical resources [15].

The researcher used an explanatory research design because it helps to observe the underlying situations for a phenomenon which can not be observed directly. It allows the researcher to gain an analytical understanding of any situation and also it can be used to anticipate future outcomes [17]. Through collecting and analyzing the data a narrative can be created that can explain how can different variables can influence and affect this research. This particular design gives a because it allows a researcher to get familiar with the different kinds of situations and to have a deeper understanding of changing conditions [10].

In this research Quantitative data collection method was chosen by the researcher to collect every data and information systematically and structurally [8]. This approach is based on experiments, observations and surveys. It also requires a large number of participants who is aware of this topic and are affected by this data collection method. After the data collection, it went through visualisation and analysis and then based on that decisions and steps are taken to complete the study [4]. The way data is collected through this process can affect the participants which is important for this study.

The primary data collection method is chosen for this research because it ensures the accuracy of the data and information which are being collected as it directly collects it from the source. There are also many various ways to collect data, most used are survey manuals and field manuals [2]. Therefore this method helps the researcher efficiently in all the departments because there is no room for error in this method so it is reliable for this research. This method is also useful to detect errors and there are many corrective ways to rectify those.

In this research study, the researcher used a random sampling method because it is simple and quite time efficient also this is a perfect method for this study. 50 people were selected for this method, the sampling method which is a possibility that every object in the population has an equal chance of being selected [10]. After the selection, the information is collected through the simple random sampling method. It reduces the chances of errors in this research and it can also reduce many personal biases and perceptions which might influence the study.

Data analysis is considered one of the most important parts of research because it is a method of understanding the critical portion of the study. It is crucial because for collecting data from different journals and articles to produce a structural way to study the outcome. A Likert scale was used for all 50 participants who attended the survey with help of 5 points rating scale [15]. This scale is important to analyze the psychometric situation of the participants such as agree, strongly agree, neutral, disagree and strongly disagree this information has been documented in MS Excel.

Ethical consideration is a set of guidelines for the researcher that should be maintained throughout this study. The researcher should provide precise citations so to avoid any kind of misinformation and the researcher should not plagiarise anyone's point of view in this article because, in the academic field, plagiarism is unnegotiable [11]. The researcher also has to keep in mind that if any participant in this survey wants to write off their name they should be allowed to do so otherwise it can impact the whole study, also participant's real name should not be disclosed in any kind of situation [2].

RESULTS AND DISCUSSION

Do agree that growing digitalisation has massively benefited that system of auctioning over the internet?

| Responses	Participants
Highly Agree	25
Agree	12
Neutral	3
Disagree	5
Highly Disagree	5
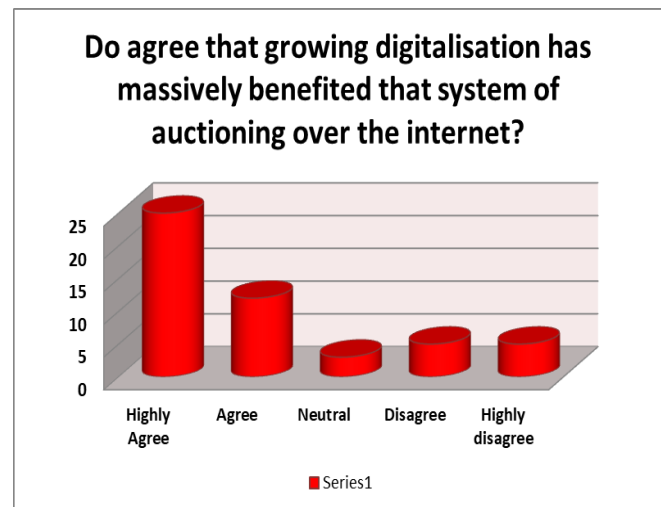
Figure 1: Benefit of digitalisation over internet auctioning (Source: Self-made)

According to the above graphical interpretation, 25 of the participants strongly believe that there has been a significant impact of digitalization in their lives. It changes their overall lifestyle and makes it easier. The main benefit of digitalization is it reaches a large population and made things convenient and gives more exposure to participants. In the same place, 12 only agree, even 5 responded disagree and 5 strongly disagree. They do not agree with the online auction, they believe digitalization reduces onsite activity. Although the remaining 3 of the respondents do not have any opinion on it.

Do you agree that the new age auctioning system on the internet is more cost-effective?

| Responses	Participants
Highly Agree	20
Agree	14
Neutral	8
Disagree	3
Highly Disagree	5
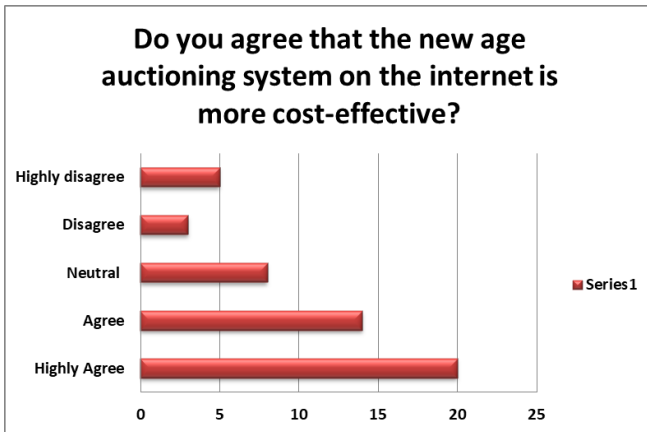
Figure 2: Cost-effective new age auctioning system
(Source: Self-made)

As digitalization increase, it makes things easily accessible and more cost-effective as well. As visible in the above figure, number 2, 20 of the total respondents strongly agree, and even 14 respondents agree with this statement, that due to the digital revolution, auctioning also happened on online platforms, which made the whole process more cost-effective as well as time-saving. Because it does not need any physical place and other arrangements, at the same time a huge population can participate in this activity. Although at the same time, 3 disagree and 5 highly disagreed that online auctioning is cost-effective. Among all the respondents 8 of them did not share their opinion on this issue.

Do you agree internet auctioning is more effective and quick compared to traditional auctioning systems?

| Responses	Participants
Highly Agree	18
Agree	12
Neutral	10
Disagree	4
Highly Disagree	6
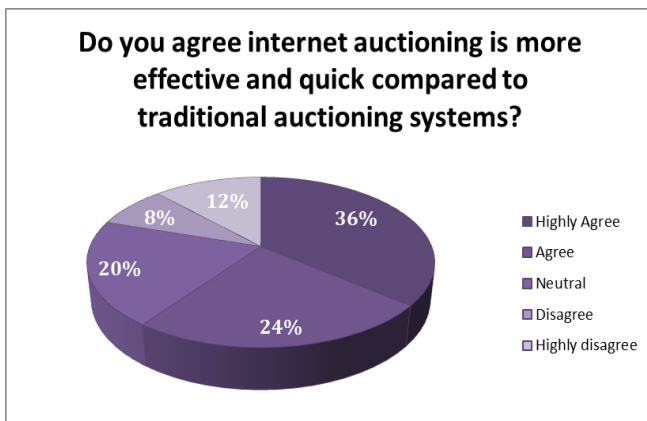
Figure 3: Comparison between online auctioning and traditional auctioning
(Source: Self-made)

As stated in figure no. 3, a comparison between online auctioning and traditional auctioning. Then 18 respondents strongly agree, and 12 of them agree with the comparison between the classical and digital versions of auctioning. Online auctions adhere to the same fundamental principles as conventional auctions, but with greater flexibility. The timeline is also significantly longer because bidders can bid from the convenience of their residence or office for several days, weeks, or even months. At the same time, 4 of them do not agree and 6 of them highly disagree with the given statement, that there is a significant difference among them. Although 10 of them do not share any opinion on it.

Do you agree that auctioning on the internet may replace the offline auctioning system in the upcoming 10 years?

Responses	Participants
Highly Agree	20
Agree	15
Neutral	10
Disagree	2
Highly Disagree	3
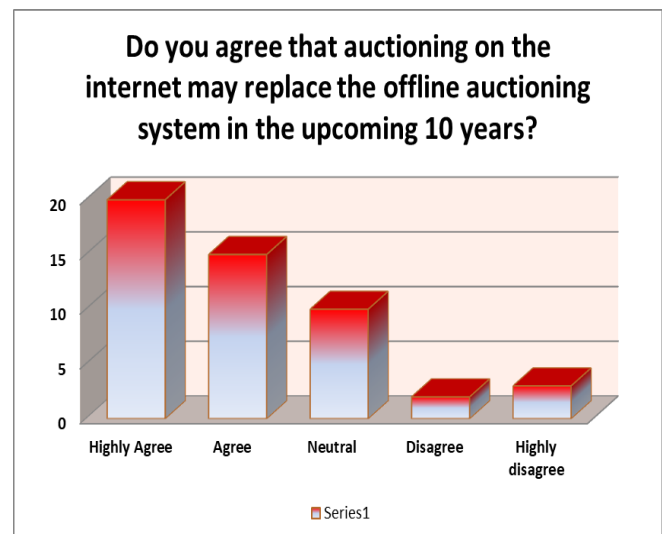
Figure 4: Online auctioning as an alternative to offline auctioning
(Source: Self-made)

When survey questions were asked about Online auctioning as an alternative to offline auctioning the respondent then as clear from the above data interpretation 20 of them strongly agreed and 15 agree that online auctioning can be used as an alternative to the conventional one. Because it has various advantages like money as well as time-saving, huge reach, more exposure, easy for all, and easy to promote the activity. They also said online auctioning can be open as long and at whatever time you want. Even 2 respondents disagree and 3 highly disagreed with it. Although 10 respondents do not share any opinion on it.

Do you agree that internet auctioning is a potential threat to middlemen people who are commissioned from the deals?

Responses	Participants
Highly Agree	16
Agree	15
Neutral	9
Disagree	7
Highly Disagree	3

Figure 5: Internet auctioning a threat to middlemen people (Source: Self-made)

According to above figure 5 when auctioning takes place in virtual or online line mode then there is some threat to middlemen person because middlemen steal information and use it to start creating direct modest audience-based offerings to pose a threat to them. Sometimes it's also becoming a cause of cybercrime. 16 respondents of them strongly agree and 15 agree that online auctioning is a threat to middlemen people. Even 7 respondents disagree and 3 highly disagreed with it. Although 9 respondents were neutral, they do not share any opinion on it.

Analysis

An online auction is also known as virtual bidding, e-auction, digital auction, or online bidding. An auction that takes place over the internet and is accessible through internet-connected devices. Online auctions are also similar to traditional auctions, they offer a variety of types with various bidding rules. Online auctions were predicted to account for 70% of all online business in 2022, indicating rapid growth for the sector [9]. The online auction can take place in three different ways like business to business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C) [15]. eBay is the most popular and rapidly growing C2C digital auctioning platform for selling items.

The worldwide spread of the pandemic may take a digital revolution, and the same thing happened with online bidding too, which means after COVID-19 the craze of online auctioning also increases rapidly. Nowadays people would like to prefer online auctioning. It has various advantages, The most important benefit is that it's able to attract a much larger audience so that the auctioning team can get large and capable buyers [5]. And the buying party also gets access and a huge variety with a single click only. Buyers can access the auction whenever and wherever they want. Thus, it would be more convenient for both parties. It also gives a huge exposure, because buyers can access a variety of catalogues and can opt for the items as per their interest [7]. Also, provide detailed information about everything, so without any hesitation, you can ask or get all information. Bidders can go from receiving an email within 10 seconds of bidding as a reminder. And there is no time bar they can access as per their suitability; thus, online auctioning is a time-saving method. This online auctioning also saves money and reduces costs in terms of physical arrangements, places, and other infrastructural facilities, also travelling and accommodation costs from buyers [1].

Besides all these advantages online auctioning has so many disadvantages too. First and the most important issue which arises due to online auctions is the increase in cybercrime as well as the theft of data and much personal information of individuals which can be misused in various places. Sometimes Anonymous Buyers also take place in the event and they are also harmful in various ways, which was not possible in the traditional mode of auctioning. The main disadvantage is the absence of face-to-face interactions [1]. Internet support cannot end up replacing seeing something in person and speaking with a buyer. A live auction lasts one day, while a scheduled online auction lasts several days. There's also a lag time as the bidding closes because bidders can place bids at the last minute, having caused the bid time to be extended [11]. Although it's true that in online auctioning there is detailed information about the product, in virtual bidding as a buyer, you cannot get the real experience or status of the item or products, which was possible in traditional auctioning.

Online auctions adhere to the same fundamental tenets as traditional auction sites, but with greater flexibility. The period is also significantly longer because bidders can bid from the convenience of their residence or office for several days, weeks, or even months. An auction site is exactly what it sounds like: both the parties' buyers and sellers can take part from anywhere with an internet connection [12]. This provides auction participants with convenience, a large market, and a shorter time commitment. When a bid is accepted by the seller, the sale is finished in less than 28 days in a categorical auction, but it may take longer in a conditional auction [6]. Finally, characteristics being bid on are typically more expensive than in a traditional auction. With everybody online getting access to the purchase, there is a chance that more bids will compete with yours.

CONCLUSION

The digital, virtual, or online auction is accessible via Internet-connected devices. Bidding and marketing rules vary between in-person and online auctions. Based on the above discussion, it can be concluded that the researcher examined the significance of online auctions. The researcher also reviews all related literature very well to make an argument about the research topic. Scholars also conducted a very well scientific process of research methodology in this study. Research philosophy followed by the positivism method, a deductive research approach was used in the study, and the whole research design was based on the Explanatory research method. The complete data was collected with the help of quantitative methods only. The data collection source was primary data from the survey method and the taken sample size was 50 respondents, which has been selected through a simple random sampling method. Data were analyzed through MS excel with all the charts and diagrams. It was an in-depth study. Based on data analysis, it can be said that as time changes frequently and the world shifted towards a digitality world, classical auctioning also shifted from traditional to virtual mode, the and majority of people would like to prefer this method. They believe it's a time money-saving method, which can be accessed by a huge population at the same time, or they can also access it as per their suitability.

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