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E-auctions from the Automotive Aspect

Aukcje internetowe w wybranych krajach

Streszczenie: Liczba kupujących na aukcjach internetowych szybko rośnie. Aukcje i sklepy internetowe zyskują popularność wraz ze wzrostem zawieranych transakcji elektronicznych. Artykuł dotyczy zastosowania systemów aukcyjnych w handlu samochodami. Celem głównym pracy jest analiza aktualnego stanu wykorzystania aukcji elektronicznej do kupna i sprzedaży samochodów w wybranych krajach. W pierwszej części artykułu autorzy przedstawiają definicje, klasyfikacje oraz zasady dotyczące systemów aukcyjnych. Następnie po zdefiniowaniu problemu zostały przedstawione cele, pytania badawcze oraz metodologia. Kolejny rozdział dotyczy e-aukcji w wybranych krajach europejskich. Zaważa się, że najważniejszą częścią opracowania jest analiza dotycząca systemów e-aukcji w odniesieniu do zakupu i sprzedaży samochodów. Aby oszacować popularność wyżej wymienionych systemów, w badaniach wykorzystano portal Aleksa. Ponadto ta część artykułu przedstawia także zalety i wady e-aukcji samochodowych. Ostatnia część zawiera wyniki badań oraz wnioski dotyczące licytacji elektronicznych w motoryzacji.

Słowa kluczowe: system e-aukcji, usługi online, motoryzacja, Polska, Rumunia.

Summary: The number of Internet auction shoppers is rapidly growing. Online auctions and shopping are gaining popularity with the growth of web-based e-commerce. Another important issue is the use of the auction system in the car trade. The purpose of this paper is to analyze the current state of development of e-auctions from the automotive perspective, in Europe in particular. In the first part of the paper, the authors present the definition, classification and rules of use for online auction systems. After that section, the problem statement, the goal of study, research questions and research methodology are presented. The next section describes e-auctions in selected European countries. The most important part is an analysis regarding e-auction systems to sell and buy cars. The research was conducted using the Alexa portal to estimate the popularity of the afore-mentioned systems. That part presents also the advantages and disadvantages of car e-auction systems. The last part of the work contains some results regarding to e-auctions in the automotive field.

Keywords: e-auction system, services online, automotive, Poland, Romania.

1. Introduction

Electronic auctions (e-auctions) are conducted online. They started in 1995 and have existed for several years on local area networks. Host sites on the Internet serve as brokers, offering services that enable sellers to post their goods for sale and allow buyers to

bid on them¹. A typical auction consists of a single auctioneer, responsible for selling an object, and a number of bidders who wish to buy the object. The auctioneer may announce a reserve price, that is, the lowest price at which the object would be sold². Internet auctions exhibit characteristics which are not often shared with conventional auctions, e.g. auctions of fixed duration which encourage sniping (whereby bidders submit their bids moments before the close of an auction thereby preventing other bidders from submitting counter-bids), the acceptance of multiple bids in a single auction, and a maximum threshold whereby the auction will terminate at that price point³. Virtual auctions facilitate online activities between buyers and sellers in different locations or geographical areas. E-auctions are accepted as a business model for such reasons as: no fixed time constrain; the involvement of a large number of sellers and bidders, which encourages a high-volume online business. They include business to business, business to consumer, and consumer to consumer auctions⁴. Auctions provide a venue for the purchase and sale of unique items, and among other characteristics, online auctions are excellent opportunities to exchange cars⁵. The purchaser who bids the highest amount, wins the right to purchase the product in an auction⁶.

In an e-auction system, a server receives and processes bids from remote software agents representing interested consumers. These semi-autonomous agents submit bids according to a predetermined strategy together with the information that they can ascertain from the server. The server processes bids, either accepting them or rejecting them, depending on their value. In some systems additional attributes may be considered when comparing bids of the same or close value. In addition to bids, bidder agents may also submit price notification requests, asking the server to tell them the latest bidding price. It is worth noting that the bidder agents can never be certain that they have an accurate representation of the current price due to network latency. It is very important that e-auction systems use the existing infrastructure and they are able to directly address performance problems which may be unlimited⁷. The auctions may have several participants. Each of them performs a specific function and carries out typical tasks. Interaction between auction participants is shown in Figure 1.

1 http://wps.prenhall.com/wps/media/objects/260/267260/online_appendices/Turban-Appendix2A.pdf.

2 Hendricks K., Preston McAfee R., and Michael A. Williams, auctions and bid rigging, 2014, <http://vita.mcafee.cc/PDF/Bidrigging.pdf>.

3 Timothy L.Y. Leung, Internet Auction Processes and Mechanisms, June 2012, <https://www.doc.ic.ac.uk/~wjk/publications/leung-2012.pdf>.

4 Online Auction, Technopedia, <http://www.techopedia.com/definition/26416/online-auction>.

5 Korper S., Ellis J., The E-commerce book - building the e-empire, Academic Press, San Diego 2000, pp. 16.

6 Hillston J., Kloul L., Performance Investigation of an On-Line. Auction System, "concurrency and Computation: Practice and Experience", 2001, vol. 13, p. 23.

7 Idem.

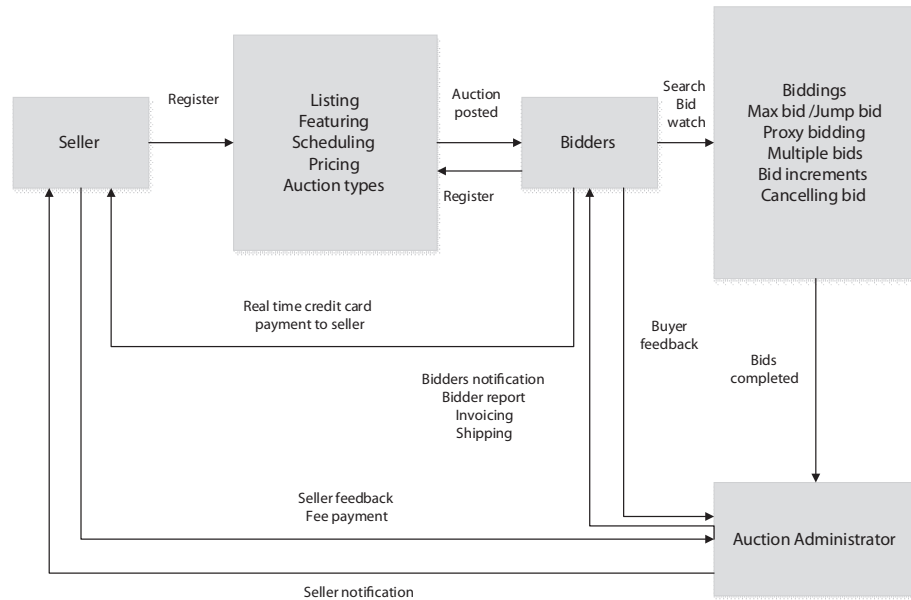


Figure 1. The e-auctions process⁸

Types of e-auction

E-auction systems are of different types or format, which determines how winners are chosen. There are four basic types of single-item auctions analyzed in the economics literature: (1) the English auction, (2) the Dutch auction, (3) the first-price sealed-bid (FPSB) auction, and (4) the second-price sealed bid (SPSB) auction (also called a Vickrey auction)⁹. The English auction became the most popular among both service providers and consumers. Another type of e-auction is a sealed bid auction, where the potential buyers receive no information about other bidders, including the amount bid. An example of a sealed bid auction is when a company takes bids from a number of vendors before awarding a contract. This type of auction is useful when potential buyers are unable to prepare bids quickly, or when the seller does not want bidders to have information about each other¹⁰. Another sort is reverse auction which secures the lowest price for an item in automotive by using a bid-down principle. The Vickrey e-auction is commonly used in the financial market for refinancing a credit or foreign exchange¹¹.

⁸ Turban E., *Dynamic Trading: E-Auctions, Bartering, and Negotiations*, 2008, <http://course.eau.ac.th/course/Download/0630637/CH10.pdf>.

⁹ Hendricks K., Preston McAfee R., Williams M., *Auctions and bid rigging*, 2014, <http://vita.mcafee.cc/PDF/Bidrigging.pdf>.

¹⁰ <http://www.cis.umassd.edu/~hxu/Papers/UMD/CSR-2009.pdf>.

¹¹ http://docs.oracle.com/cd/E05554_01/books/PDF/eAuction.pdf.

The Dutch auction basically works backwards. Items are initially offered at a high price, and the price is gradually reduced until a bidder offers to buy at that price. The first person to bid is allowed to purchase the sale item.

This type of auction is useful when a business is selling a few expensive items with high demand. In a second price auction, each potential buyer bids the most he or she is willing to pay for the item.

Then the current bid amount is gradually adjusted downward until all the items have been sold. This type of auction generally works well when bidding is slow and the auction takes place over an extended time period. In a forward auction, multiple bidders compete to buy things from an individual seller. In a reverse auction, however, one buyer requests a certain good or service from a number of sellers.

The sellers then bid for the right to make the sale. Reverse auctions are expected to play a growing role in business-to-business online transactions, particularly for large, one-time purchases, such as a fleet of automobiles¹².

E-auction fraud

The big profit from online auction attracts the attention of criminals who use fraud to cash in on the profitable online market. The Internet Crime Complaint Center (IC3), a partnership of the Federal Bureau of Investigation (FBI) and the National White Collar Crime Center, in 2007 released its annual report on victims' complaints received and referred to law enforcement.

Among the results: "Internet auction fraud was by far the most reported offense, comprising 44.9% of referred complaints. Non-delivered merchandise and/or payment accounted for 19.0% of complaints. Check fraud made up 4.9% of complaints. Credit/debit card fraud, computer fraud, confidence fraud, and financial institutions fraud round off the top seven categories of complaints referred to law enforcement during the year"¹³.

To understand online auction fraud, it is convenient to first classify the various types of online auction fraud according to the three time periods in which the fraudulent behavior can take place: pre-auction, in-auction and post-auction (Figure 2)¹⁴.

¹² <http://www.scribd.com/doc/13564383/24/CONCLUSION>.

¹³ <http://www.worldlawdirect.com/forum/money-frauds-scams/32708-ic3-fbi-credit-card-fraud.html>.

¹⁴ <http://www.cis.umassd.edu/~hxu/Papers/UMD/CSR-2009.pdf>.

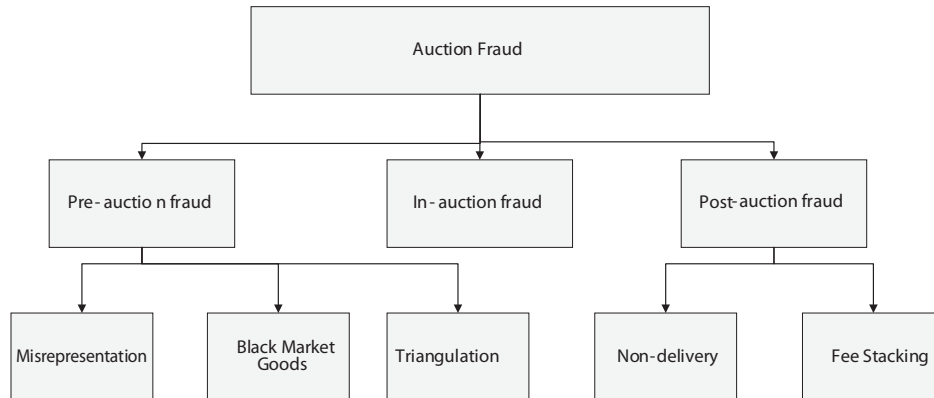


Figure 2: Auction fraud categorization¹⁵

Characteristics of the e-auctions

E-auctions on the Internet have many distinct characteristics, which explains their growing popularity¹⁶. They are one-to-many situations either for the buyer or the seller. The price is the primary objective and often the only variable. This type of transaction is strictly a one-off and any future transactions are not predicated or dependent upon its terms. There may be subsequent deals; however, each one will be unrelated and negotiated separately. The focus of an auction is solely on a short-term gain without consideration for the other party's financial situation¹⁷. In Table 1., the most important characteristics of e-auctions are presented¹⁸.

Table 1. The characteristics of e-auctions

| E-auctions characteristics | | |
|----------------------------|--------------------------|---------------------|
| Current bid | Seller location | Buy now option |
| End time/time remaining | Return policy | Item quality |
| Rate of bidding | Payment methods accepted | Product description |
| Number of bidders | Proxy bidding | Photo of product |
| Shipping costs | Reserve price | Security |
| Shipping options | Minimum bid | Seller feedback |
| Shipping insurance | - | - |

Source: Darke J., Important auction characteristics in e-marketplace decisions: an exploratory look at auction selection and product valuation, 2007, pp. 42.

¹⁵ Idem.

¹⁶ Ariely D., Simonson I., Value Assessment and Decision Dynamics in Online Auctions, 2003, pp. 2.

¹⁷ <http://www.edgenegotiation.com/2010/01/auctions-bartering/>.

¹⁸ <http://sais.aisnet.org/2007/SAISo7-10%20Drake.pdf>.

2. Research methodology

Problem Statement

Though numerous studies have cited e-auction systems, e-auctions systems within the automotive industry do not have as many references in literature, therefore this paper can be useful in identifying the role of e-auctions in the automotive business. The research problem concerns the analysis and evaluation of e-auctions from the perspective of users, based on selected automotive e-auctions in Europe, in particular in Poland.

The goal of the study

The problem described above definitely leads to a considerable need to conduct research on e-auctions in the automotive context. Since implementation of new e-auctions has already started, the authors decided to check the e-auction systems popular in Europe, especially in Poland. The goal of this study is to critically examine e-auction systems to determine the usability of e-auctions. This research was conducted as part of a larger study on the role of e-services in Poland. Moreover, the purpose of this study is to show the current state of e-auctions worldwide, by choosing a few relevant countries like Poland, Romania and Ukraine.

Research Questions

This paper aims to investigate which e-auctions should be used to sell and buy cars. The following essential questions are addressed:

1. What are the most popular car e-auctions in Europe?
2. What features are possessed by car auctions?
3. What are the advantages and disadvantages of car auctions from the perspective of users?
4. Which IT tools will be appropriate to facilitate the process of buying and selling cars using e-auctions?

The research methodology

Several directions of research may be identified in the literature concerning the car e-auctions platform. One of them investigates how e-auctions help users to find the best deal. The theoretical framework of using e-auctions was examined and described. Subsequently, it reflects on the development of online e-auction systems. The data for conducting the study was collected from primary sources: reports, official websites of companies and e-auction platforms, as well as from secondary sources such as books, articles and journals. In order to obtain the answer to the first question, a comparative analysis of available car e-auctions was carried out. A written query led to the identification of several car e-auction systems functioning in Cloud Computing. They are: Allegro, Okazii, Ebay,

Aukro. This group of systems allows their users to trade with different things. These are multi-systems. In order to obtain more precise results on auction systems dedicated to cars, the analyses were extended to get the knowledge on the profiled for cars auction platforms. Such systems have been identified as: EFL (European Leasing Fund) Polska, Autorola, Eurocarbid, Autota, Poleasingowy, Exleasingcar, Car-port, Dawro.

The characteristics of the selected computer system to support online auctions

Aucnet in Japan began auctioning used cars to dealers on TV in the mid-1980s. In 1992 it opened Aucnet USA Inc. and started auctioning cars in the USA. In 1996 Aucnet moved to a private network, and in 1998 it moved to the Internet. In 1998 Aucnet USA was closed. Today, Aucnet still operates in Japan, auctioning cars, computer hardware and software and also services such as insurance and leasing (for more details, see aucnet.co.jp/english)¹⁹.


Car auction software incorporate marketing and promotional material generation, upload market reports and run many lists to the owner web site. An important feature is the portability, enhanced by car auction software. The main application menu contains „buyer registration”, „vehicle registration”, „Bills of sale” and „inventory”. More features are needed for good car auction software, such as: a number reservation system, pick-up orders, automatic generation of sales, cash receipts, a possibility to create invoices on demand for all customers, for unpaid fees, automatic checking of printing, integration with accounting system, ability to create conditions reports. Optional features include a portable the database for car collectors, including traveling auctions, wireless data entry capabilities to register cars, verify the inventory, customer Identity Document (ID) card printing and touch screens for customer self service. There are more functions available or ready to be implemented. Intuitive and user friendly data input screens facilitate the use. The system security is a key of car auction software success.

Bidsonline

Bidsonline’s live bidding system is integrated with financial and operational systems for auctions. Alternatively using our Application Programming **Interface** (API), it can be integrated with an auction system. Auctions are live on the Internet with less than a second delay for video and audio. Bidders can bid with either their PC or Smartphone. Bidsonline’s online auction is integrated with the financial and operational systems for auctions. Carsplus is Bidsonline’s operational and financial system for car auctions. Carsplus is a client/server system with web based executive reporting. The system can be run on users’ servers or on its ‘cloud’ servers. The software is written using Microsoft’s programming languages and Microsoft’s SQL database. The following Figure 3. Presents a screen shot of Bidsonline.

¹⁹ http://wps.prenhall.com/wps/media/objects/260/267260/online_appendices/Turban-Appendix2A.pdf.

[Home](#) | [Auction Listing](#) | [Catalogue Listing](#) | 08 FORD FALCON 4D SEDAN



08 FORD FALCON 4D SEDAN

[See full Inspection Report](#)

PRODUCT DETAILS

Catalogue/Lot 6867/1 Close: 9/01/2014
No 6:30:00 PM

Vendor: [United Auctions VIC](#)
[Terms and Conditions for this vendor](#)
<http://www.unitedauctions.net.au>

Buyers Premium: 440

Quantity: 1
Current Bid (AUS): 0.00

Description:
03/08 FORD FALCON XT (LPG) BF MKI 4D SEDAN
4.0 6 CYL 4 SP AUTO SEG SPORTS WHITE
WHR869 165133 Km

Inspection Report: [Click to view vehicle inspection report](#)

MAKE A BID

Latest Bid (\$): 0.00 (No Bid Yet)

My Bid: (\$)

My maximum bid for this item is (\$)
BidsOnline will automatically bid to this amount on your behalf.

[Place Bid](#)

[Bidding History](#)

Figure 3. A screen shot of Bidsonline²⁰

Auto Action

The Automated Auto Auction System has been developed using the advanced and flexible computer language, Java, which made it possible to create the Automated Auto Auction System with the user in mind. Intuitive data input screens make learning the system fast and easy. Durability, reliability, and simplicity are its key characteristics. The best professional grade products have been selected to integrate with this system. The hand-held wireless RF barcode scanners make it possible, for instance, to register vehicles at the gate, which reduces, if not eliminates, vehicle registration errors. Using the handheld units for vehicle registration updates the database in real-time. Scanning the bar-coded (Vehicle Identification Number) VIN directly from most vehicles also eliminates costly input errors. The Automated Auto Auction System uses Microsoft SQL Server for its database functions²¹.

Auction Simplified

It was founded by a group of automotive industry veterans to provide dealers with a new way to manage their wholesale vehicle inventory - they launched groundbreaking

²⁰ <http://www.bidsonline.com.au/documents/Bol%20Auction%20System%20brochure.pdf>.

²¹ <http://www.autoauctionsolutions.com/system.asp>.

technologies that empowered dealers to improve their wholesale profitability without additional expense. By killing off the expenses of transporting cars, Auction Simplified has increased dealer profit and made it simpler to move metal.

Wholesale buyers use Auction Simplified, because of low buyers' fees, and since it is less expensive for the dealer to sell; prices are lower. Auction Simplified is committed to providing ongoing training, proactive coaching and support to ensure dealers achieve the intended results²².

3. E-auctions in selected countries

The most famous C2C company is eBay, the world's largest personal online trading community. eBay.com is an American multinational Internet consumer-to-consumer corporation. This company allows consumers to offer their goods directly to other consumers in an auction format. These days the secret to eBay's profitability is volume. Individual consumers use eBay to buy and sell items in over 4,320 categories, including automobiles. Sellers are attracted to eBay because that is where the most buyers are. As a result, more than 450,000 items are posted for sale on any given day, and eBay collects a fee on each transaction. Thus, eBay is the world's largest auction website, with \$2.19 billion revenue for the first quarter of 2008²³. Originally founded in 1995, eBay has become the world leader in the online auction field with more items and categories than any of its competition²⁴.

eBay has a solid foothold as the canonical e-auction site. It is distinguished by its availability of single, used and/or rare items, and for its floating prices²⁵.

eBay's initial business model was to provide an electronic infrastructure for conducting mostly Consumer to Consumer (C2C) auctions. eBay auctions do not require an auctioneer; technology manages the auction process. The company collects a posting fee up front, plus a commission that is a percentage of the final sale amount (Table 2)²⁶.

eBay is extremely popular in the world. It is the world's greatest marketplace and a strong brand image in the automotive industry. Also, the brand name has become synonymous with the online auction industry²⁷.

Almost anything can be found on eBay, from cars, trucks, components and accessories for automobiles²⁸.

22 http://www.auctionsimplified.com/dealer_auction_software_for_sellers.php.

23 <http://pages.ebay.com/aboutebay/thecompany/companyoverview.html>.

24 <http://auctions.nettop20.com/>.

25 <http://www.mcafee.cc/Classes/BEM106/Papers/2005/eBay.pdf>.

26 http://wps.prenhall.com/wps/media/objects/8362/8562891/Online_Chapter_17.pdf.

27 <http://www.exampleessays.com/viewpaper/25348.html>.

28 <http://www.prweb.com/releases/2013/7/prweb10903603.htm>.

E-auctions offer to buyers the opportunity to participate online to find the preferred car. The sale presents vehicles sequentially, auctioned by an auctioneer²⁹. Also, the number of auto sales in every year is different. For example, in the U.S the number of sales varies in every year from 2003 to 2012.

Table 2. E-auctioneer vs. e-seller

| Role | Description | Major Responsibilities | Goals | Example |
|------------|---|---|---|--|
| Auctioneer | An entity that provides auction services to online auction users | <ol style="list-style-type: none"> 1. Provide a transaction platform and services to both sellers and bidders. 2. Make arrangements for auctions. 3. Place advertisements for auctioned items. | Provide a trust-worthy auction environment to customers and earn commissions. | eBay |
| Seller | An entity that offers items for sale. The seller may or may not be the owner of the item. | <ol style="list-style-type: none"> 1. Run the auction by posting item descriptions and pictures, and taking bids. 2. Receive payments and provide the auctioned items to the winner. 3. Pay commission fees to the auctioneer. | Obtain a high sale price and reduce commission costs. | A person who hosts an auction on eBay. |

E-auctions in Poland

The most significant site of e-auctions from the automotive perspective in Poland is Allegro.pl. It was established in 1999 in Poznan, and it has reached about seven million users with a new user registering every 16 seconds. In the first 9 months of 2007, the company sales totaled 2.75 billion PLN, while over the whole of 2006 sales were just above 2.50 billion PLN³⁰. Allegro is ranked in 192nd place among the world's most used online websites by Alexa on 4 December 2008, compared to eBay UK in 98th position and eBay Germany in 64th. Allegro's extensive experience in the automotive market motivates the entire organization to continually enhance and improve their broad foundation of high voltage automotive semiconductor and Integrated Circuit (IC) package technologies, their deep

²⁹ <http://www.british-car-auctions.co.uk/buy/Useful-information/How-to-buy-online/Exclusive-to-Buying-online/e-Auction/>.

³⁰ [http://en.wikipedia.org/wiki/Allegro_\(auction_website\)](http://en.wikipedia.org/wiki/Allegro_(auction_website)).

automotive applications knowledge, their global automotive market support infrastructure, and their engagement in automotive quality systems. As a result, Allegro's essential technologies are well aligned with emerging trends towards fuel efficiency and reduced vehicle emissions. Allegro is well positioned to deliver robust applications, specific ICs for a broad range of safety critical powertrain, electronic power steering, and comfort and convenience applications for the internal combustion engine and hybrid or fully electric vehicles³¹.

E-auctions in Romania

The most significant e-auctions site in Romania is 'Okazii.ro' - the biggest Romanian platform dedicated to online auctions. It was created on 15 April 2000 by Netbridge Services³². 'Okazii.ro' is an online auction, free of charge, where people can buy and sell in the automotive field³³.

Another e-auctions site is Carson web which contains offers on a lot of second-hand and new cars, along with cars which have been used on a lease basis and many others – everything at reasonable prices³⁴.

In Romania the first e-auction in the automotive industry was Autobis.ro, and it still exists. This online auction enables rapid matching of supply to demand, and it guarantees a good price in a short time³⁵.

E-auctions in Ukraine

The most important site in automotive electronic auctions Ukraine is "Aukro.ua" - the largest Ukrainian platform designed for online auctions with the largest database of vehicles submitted to auctions. It was founded in 2007 and included in the Allegro Group Ukraine holding. (<http://internetua.com/aukro>) "Aukro.ua" is an online auction, free of charge, where people can buy and sell in the automotive field of interest.

Another site specialized only in automotive items is "autoauction.in.ua", with offers of second-hand and new cars. Most of the online car auctions in Ukraine are currently in their infancy and therefore they do not compete with such giants as "aukro.ua" or the most popular sites that specialize in car sales - "auto.ria.ua" and "avtobazar.ua." This type of Internet commerce, however, is gaining popularity fast, so a change in the leadership positions may be expected^{36,37}.

31 <http://www.allegromicro.com/Applications/Automotive.aspx>.

32 <http://www.wall-street.ro/tag/okazii-ro.html>.

33 <http://biblioteca.regielive.ro/proiecte/comert/site-ul-okazii-marketing-227660.html>.

34 <http://www.carsontheweb.ro/ro/online-car-auction>.

35 <http://www.manager.ro/articole/auto/autobisro-devine-autoindustryro-45121.html>.

36 <https://support.alexacom/hc/en-us/articles/200449744-How-are-Alexa-s-traffic-rankings-determined>.

37 <http://www.alexacom/about>.

Results of the comparative analysis: Poland, Romania and Ukraine

The research and analysis show that a lot of users of auction sites such as Allegro, Okazii, Ebay, Aukro treat the systems as advertising services, ignoring the consequences associated with them. Users frequently finalize transactions outside the auction site. The person offering the car auction withdraws offers e.g. giving false reasons. The users of e-auctions offering the car want thus to avoid fees and commissions for the auction. In addition, sellers sometimes exhibit expensive cars at lower prices, believing that they are not obliged to sell later. The result is that the offer is more visible in the list of auctions, especially if you sort by price.

The results of analyses

There are a lot of car e-auctions worldwide. However, in this business it is important to meet the specifics of ethical and legal factors. The analysis of the Internet, as well as literature, made it possible to select the leading car e-auctions in Europe, in particular in Poland. The selection criterion was the global rank, the rank in country, bounce rate, daily page views per visitor and daily time on site.

To estimate those parameters the Alexa portal was used. Alexa.com ranks websites based on the number of visitors they receive — for example, Google.com is ranked #1, Facebook trails in the #2 position, and so on. Many high-traffic domain names get an Alexa ranking just from their type-in traffic. In general, an Alexa ranking under 1,000,000 for an undeveloped site is a good indicator that the domain receives decent traffic. Rankings over 1,000,000 are less reliable, but any ranking usually means that the domain receives at least some traffic.

As with any indirect method, Alexa should be used as a guideline only; sometimes even domains with a “No Data” result on Alexa still receive traffic. A similar tool may be found at Ranking.com. Alexa’s Traffic Ranks are for top level domains only (e.g., domain.com). It does not provide separate rankings for subpages within a domain (e.g., <http://www.domain.com/subpage.html>) or subdomains (e.g., subdomain.domain.com) unless they are able to automatically identify them as personal home pages or blogs, like those hosted on sites like Blogger (blogspot.com). If a site is identified as a personal home page or blog, it will have its own Traffic Rank, separate from its host domain. You can find in the Tabele 3. For more information about Alexa’s traffic rankings, the following site can be visited: <http://www.alexacom/about>³⁸.

38 www.alexacom.

Table 3. The results of the research concerning popularity of car e-auctions in Europe, in particular in Poland

| No. | Name of e-auction And website adress | Global rank | Rank in country | Bounce Rate | Daily page views per visitor | Daily Time on Site |
|-----|---|------------------------|------------------|--------------|------------------------------|--------------------|
| 1. | EFL Polska http://aukcje.efl.pl | 242,942 64,265 | 2,838 Poland | 19.50% | 4.50 | 4:57 |
| 2. | Autorola http://www.autorola.pl/ | 363,885 125,170 | 4,498 Poland | 28.10% | 8.60 | 8:04 |
| 3. | Eurocarbid http://www.eurocarbid.com | 1,258,350 85,750 | 35,236 Spain | 15.60% 79 | 4.60 | 6:07 |
| 4. | Autota Autota.pl | 2,514,054 3,259,176 | 26,286 Poland | Lack of data | 12.00 | 5:56 |
| 5. | Poleasingowy http://poleasingowy.eu/ | 2,276,675 1,064,628 | 39,282 Poland | 33.30% | 1.30 | 0:18 |
| 6. | Autobid http://www.autobid.de | 144,661 11,797 | 9,196 Germany | 16.00% | 27.00 | 15:17 |
| 7. | Exleasingcar, https://www.exleasingcar.de | 2,072,348 972,168 | Lack of data | 15.00% | 4.00 | 3:25 |
| 8. | Car-port http://www.car-port.pl/ | 396,148 87,402 | 6,328 Poland | 13.90% | 6.00 | 6:30 |
| 9. | Dawro, http://www.dawro.pl | 227,794 15,984 | 4,485 Poland | 13.50% | 5.00 | 5:23 |

Source: Own elaboration

Global RankAlexa Traffic Rank

The rank is calculated using a combination of average daily visitors to this site and page views on this site over the past 3 months. The site with the highest combination of visitors and page views is ranked #1. Updated Daily³⁹.

Traffic Rank in Country

The rank by country is calculated using a combination of average daily visitors to this site and pageviews on this site from users from that country over the past month. The site with the highest combination of visitors and pageviews is ranked #1 in that country. Updated Daily⁴⁰.

³⁹ www.alexa.com.

⁴⁰ www.alexa.com.

Advantages and disadvantages of car e-auctions

The purpose of this article is to present briefly the advantages and disadvantages of car e-auction systems. To accomplish this, an analysis was conducted of the available data. Findings indicated the advantages and disadvantages as shown below.

The advantages:

- Online car auction is a method of standardizing the procurement process;
- Preferred bidders are all contained within a single database;
- Bidders can be monitored;
- Good control of bidders' submissions;
- Easy comparison of bids;
- Confidence in validity and integrity of contractual documentation;
- Time benefits: reduction in paperwork, postage, photocopying;
- Ease and speed of communication to multiple bidders;
- Audit trail for documentation;
- Secure bidding environment;
- Better efficiency in the process;
- Potential for access to competitors' bids;
- The ability to submit more than one bid⁴¹.

The disadvantages:

- Online auctions do not provide buyers with an option of personally viewing and evaluating items before purchasing. This may lead to a possibility of fraud.
- It is not possible for every business to take part in an online auction. Companies have to host their own auction websites and for this purpose they have to hire trained technical staff.⁴²

4. Conclusions

E-auctions and electronic markets in general have recently emerged at a high rate⁴³. The result is that e-auctions are a powerful mechanism in electronic systems. Consequently, it is becoming more and more necessary to use e-auction systems and to know how to use them⁴⁴. Nowadays e-auctions have become important and widely known in the automotive industry and they are continuing to grow in popularity⁴⁵. Numerous sites exist

⁴¹ http://wiki.answers.com/Q/Advantages_of_e-auction.

⁴² <http://ezinearticles.com/?Advantages-and-Disadvantages-of-Online-Auction-Sites&id=1254128>.

⁴³ http://pdf.aminer.org/000/246/104/electronic_brokerage_and_electronic_auction_the_impact_of_it_on.pdf.

⁴⁴ <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.138.3836&rep=rep1&type=pdf>.

⁴⁵ <http://www.hpl.hp.com/techreports/2000/HPL-2000-90.pdf>.

which contain automotive e-auctions and which are described in this paper. This paper reviews e-auction systems from the automotive viewpoint and some sites containing details about e-auctions in this area. From an academic perspective, this study contributes to a theoretical account of weaknesses in the use of car e-auction platforms. It is possible to find information on what the most popular car e-auctions in Europe, in particular in Poland, are, what features car auctions possess, and what the advantages and disadvantages of car auctions from the perspective of users are.

Auction systems are very often used to promote offers to sell cars. However, the transaction frequently occurs outside of the system. The auction systems such as: Allegro, Okazii, Ebay, Aukro in the majority of cases are used by individuals. The situation is different in systems dedicated to business, where the system operator ensures that the operations are secure and trustworthy. Such are the following systems: EFL Polska, Autorola, Eurocarbid, Autota, Poleasingowy, Exleasingcar, Car-port, Dawro. From the perspective of a practitioner, this study informs users of car e-auctions to set realistic expectations of e-auctions to successfully use them. Moreover, thanks to the information contained here, users may more effectively use tools dedicated to car online auctions to improve the process of selling and buying cars.

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