Risks and problems of contemporary electronic C2C auction systems

Michal Sebesta
University of Economics, Prague
Department of Information Technology
nam. W. Churchilla 4, 130 67 Prague 3
xsebm14@vse.cz

Abstract:
This article examines present risks and problems of C2C auction systems. As a main resource, author uses his own practical research combined with analysis of journals and other research papers in this field of study. On this basis, author defines current major problems. Analysing results from the survey of 253 active users of internet auctions, he proposes possible future solutions and their implications.

Keywords: auction, auction systems, problems, e-commerce, risks, disputes, solutions, data protection

1. Introduction
Since the year 1995, internet auction systems have been emerging all over internet, and from the beginning they got through an immense development. Present day, there are international auction systems such as eBay, uBid, and eBid, so as their local or specialized alternatives. Even though their concepts vary, selling or buying using all of these systems incorporates more or less the same risks. As there are many different types of auction systems, the English auctions\(^1\) became the most popular, and it is used by most of the internet users these days. In fact, it is the most public-exposed auction type.

This type of auction is also unfortunately the most dangerous one in terms of possible problems that can emerge during and after the auction. This is because of many factors and we will deal with these issues later in this article.

2. Definition of our object of research
Within e-commerce, we can position auction systems according to the number of potential participants on either side of the trade. Creating a custom classification model (see Figure 1) can help us to understand the differences between various e-commerce models. Although there are some auction variations, which depend on the price creation mechanism and other connected rules, we can position most of the contemporary auction systems in the segment III.

---

\(^1\) More concretely: classic forward C2C auction.
Figure 1: Position of forward auctions within custom e-commerce classification, source: author.

Since the foundation of modern auctions theory by Vickrey (1961), there were many definitions of auctions. We will try to pick few most accurate from the viewpoint of our research. Mcafee & Mcmillan (1987) define auction as “a market institution with an explicit set of rules determining resource allocation and prices on the basis of bids from the market participants”. Drozen (1998) says that ‘Auction (Greek aparíà, apokéryxis, Latin auctio) is primarily connected with public sale, where the auction item is offered simultaneously to multiple parties. The item is then auctioned off to the person who bids the highest price.”

Author of this article defines auction as follows: „Auction is a process where seller is selling goods or services to the buyer with specific selection rules of buyers and the final auction price.” Depending on the auction type, there are differences in the selection rules.

We can find many auction types, and many authors use slightly different division and appellations².

Because the risks and problems could differ from type to type, we took a specific sub-type of electronic auction systems. See Figure 2 for the classic forward C2C auction process. In our research, we will use term auction for this type unless stated differently.

Classic auction, sometimes referred as English auction, is an auction type differentiated by specific auction algorithm. There is an upset price set at the beginning of the auction, and the buyers raise the price of the auction item by bidding. They bid as long as there is no one that is willing to pay more than the current auction price. Second variant of this auction type uses so called buy-out-price alternative. Term electronic auction (e-auction) means an auction performed electronically.

Forward auction, or selling auction, is an auction type differentiated by the subjects’ position in the auction process. There is only one seller that offers the auction item, and there are multiple buyers that bid on the item. Winner of the auction is buyer that bid the highest price according to the auction rules.

Risks and problems of contemporary electronic C2C auction systems

Figure 2: Classic forward C2C auction process, source: author.

Usually, we address seller and buyer in the particular auction as “participants”. Term “user” is mostly used with the meaning of registered person in the auction system, either connected or not connected to particular auction.

C2C³ auction is an auction type differentiated by the subjects involved in the auction. In the role of both seller and buyer, there is an individual not a business. Access to these auctions is usually conditioned only with small fees and simple registration, and this implies a wide spread across the internet. These simple conditions have also counterpart and many of the potential risks come from the simplicity of this process.

Since we defined our subject of study, to keep the text well organized, we will use shorter term “internet auction” in the following text instead of the full auction type definition.

3. Risks of contemporary auction systems

According to the experience of users and my previous research (Sebesta, 2007) I tried to list some of the risks emerging on auction systems from the view point of particular roles in the process. As we can see from the previous figure, we have two basic roles, buyer and seller. Some of the problems emerge on either side of the process; therefore we use a special category for that group of issues.

Present risks of internet auctions from the view point of buyer:

1. Seller refuses to send the goods.
2. Auction item description is not accurate.
3. Seller proposes using other system than the official auction system.
4. False depiction of the auction item. (Trevathan, 2006)

³ Consumer-to-consumer.
5. Auction item is a counterfeit. (Drozen, 1998)
6. Use of “shilling” by the seller. (Kauffman, 2005, Greenleaf, 2001)

Term “shilling” is used as a name for a method, where some other buyer or buyers act as a decoy in the electronic auction. This method serves for artificial increasing of selling price of the auction item. Decoy agrees with the seller that they will bid on the selected item to some agreed sum. However, the decoy can be the seller himself using a false electronic identity. Kauffman (2007) further presents different types of shilling and its effects on auctions.

Proposing other system than the official auction system is relatively common sign of a fraud seller. Auctions Company is able to monitor transactions within their system. In case that the transaction occurs outside this system, the auctions company is not able to guarantee that the transaction passes off. Other mentioned risks do not need further comments.

Potential risks of internet auctions from the view point of seller:
1. Buyer does not pay for the goods.
2. Unauthorized reporting of a flaw/defect of the item.
3. Unauthorised reporting that item is not delivered.

Unauthorised reporting is a behaviour that practises some buyers to get the item and either the money “illegally”.

Potential risks of internet auctions from the view point of both seller and buyer:
1. Use of “bid shielding” by the buyer. (Lucking-Reiley, 2000)
2. Use of “squeezing” by the buyer. (Barbaro, 2006)
3. Auction item or payment does not reach destination.

In practice, “bid shielding” means that buyer bids low price for the item, and uses his second identity (false identity) to bid really high and unrealistic price. As a winner (second identity), buyer does not respond to the seller. That causes that the seller contacts the second highest offer. In fact, the second highest offer is the same buyer (first identity), but for a much lower price. The risk for seller is that the final price will be much lower than he expected. The risk for both buyers and sellers is that some potential buyer is not able to bid on the item because of unrealistic high actual price of the item caused by bid shielding.

Squeezing is a bid shielding variant, where buyer uses three identities (instead of two) to win the auction. At first, he bids the low bid. Secondly, he bids very high bid with the second ID. Thirdly, he bids slightly higher bid than the second one with the third ID. Finally, buyer retracts both of the bids and gets offer for the lower price.

4. Sources of the identified risks

When we look closer on the risks we mentioned above, we can see that there are some connections and analogies between them. After further analysis, I tried to sum up the thorniest problems that are sources of these contemporary risks of online auctions:

- Credibility of auction participants (pairing real and virtual identity).

4 Unless he uses reserve price for the particular auction item.
Risks and problems of contemporary electronic C2C auction systems

- Payment transactions and their pairing to particular auctions.
- Correctness of the received item in relation to the auction (virtual) item.
- Refund problems.
- Legal protection of customers (buyers) in EU.

These problems are mostly caused by the essential fact, that the trade proceeds at some virtual place (auction server) and the present technology is working in a way that it can not guarantee the connection to the real person, and a real item. At this level, we can not solve this problem completely, because the only solution would be changing the whole contemporary internet technology\(^5\) concept, which is this time very likely impossible. Therefore we need to search for other possible solutions of these problems.

Nowadays, we can find many tools or services reducing the possible losses accompanied with the risks (insurance services, escrow services, feedback systems, etc.). There are studies examining and inventing new auction types\(^6\), which would be less exposed to these risks.

Other studies go further in examining auction process and its roles, for instance Wang et al. (2001) proposes introducing a role of auctioneer that would manage the auction instead of seller. We can see it as a return to classic and proved auction model used by real auction houses such as Sotheby’s, Christie’s, or Dorotheum. Although, this change could potentially reduce some of the risks (like shilling on seller side), from my perspective the majority of risks would stay mostly unaffected. Moreover, this could cause a reduction of online auctions attractivity to the users, because of a need to spend additional costs\(^7\) connected to the auction.

The best solution is from my point of view to concentrate more on the core problems that we mentioned above.

5. Possible solutions

According to the survey among auction users made in 2007 by author of this paper\(^8\), we can say, that the thorniest problem is the credibility of auction participants. See Figure 3.

This result proved while analysing separately a group of users that had zero bought items so as zero sold items in their portfolio. We can call these users “observers”. Even if they had experience with auction servers, they did not want to participate directly. Interesting fact is that they showed very similar results, but emphasised the

\(^5\) Including the legal problems connected to the „new“ technology, which could deal possibly with providing personal data to third parties.
\(^6\) See Otair & Hattab (2008)
\(^7\) Auctioneer service fees.
\(^8\) The survey took place in August 2007, and its aim was to map regular user experience to further analyze the problems of contemporary auction systems. There were 253 respondents, where all of the respondents were active users of internet auctions. Respondents are members of specialised groups on various social network servers such as Nyx (www.nyx.cz), or Facebook (www.facebook.com).
problem with users’ credibility even more than the regular users. This shows us that low credibility of auction participants is one of the key problems that discourage some people from using the auction servers for buying or selling products. See Figure 4.

The aim of this article is to present possible future solutions so as the solutions available today. I examined some of the possible solutions during my previous research. Although it is possible that there are different ways of solving these problems, according to my research, the following solutions are the ones that are possible with making relatively little changes mostly on process and/or organizational level. This from my point of view makes the solution more effective and less expensive for the auction company.

Further in the article, we will examine particular problems and the proposed solutions.

![Figure 3: Biggest problems of contemporary internet auctions (users view point), source: author.](image1)

![Figure 4: Biggest problems of contemporary internet auctions (observers view point), source: author.](image2)
5.1 Credibility of auction participants

Partial solution could be changing the auction system registration process. We can use the example of Aukro (www.aukro.cz), a local online auction system in the Czech Republic. Aukro uses identity and address verification in the registration process. Every user that wants to have the “verified user” status needs to confirm his address by entering the verification code received by mail.

When some problem occurs, or when there is some suspicious behaviour, user needs to provide a scan of national ID card to the auction company. In case of fraud or a dispute, national ID card combined with the permanent address verification is sufficient evidence. It is because there is a need to report losing of the card to authorities immediately after the person notices that his card is lost (Czech National ID Act 328/1999).

Even if someone uses stolen ID card, there is a need to proof permanent residence, which is listed on the ID card, and which needs to be the same like on the card. This solution is possible in a small scale projects like Aukro, but is this possible on servers like eBay?

- First of all, we need to think in the terms of legal issues connected with this solution. The company must guarantee that the data will be safe in their storage.
- Secondly, not all countries use the permanent address in their citizens’ registries. Moreover, even if there is a permanent address, the legal situation with ID cards varies from country to country. As Beynon-Davies (2006) mentions, even countries like UK, USA, or Australia do not have national ID cards. So the question is, are we able to guarantee worldwide that the address provided by the user is his or her real address? Possible outcome would be using the “verified user”-mode in some countries only, or using other documents for verification (passport, multiple recent utility bills etc.).
- Thirdly, there are huge costs connected with this innovation. We can say, that central collection of these data is almost impossible (and in some cases not legal). It is mostly because of the data integration problems, and connected overall costs of this solution. Our proposal would be using the local branches of eBay gathering these information in their data-stores with sufficient security, and in the case of a dispute, providing the data to relevant branches for a limited time until the problem is solved. According to this, the global auction systems need to think about this solution in the terms of costs, security and possible improving of the business image by public (especially potential users). See Figure 5 for more information about the concept.

Moreover, seller could set auction options, such as that every buyer that participates in the particular auction needs to have “verified user” status. Otherwise, the buyer could not bid in the particular auction.

This type of verification is used in PayPal these days. The only problem is that utility bills could be modified by the user more easily, and we can not prove whether the utility bill is real and recent.
• Finally, we need to mention, that the security threads could be partially eliminated by the forced use of electronic signature. However, this could lead to potential outflow of users, because not all of them will register for an electronic signature just because they want to sell something on internet auction.

As an example of this solution, we will use eBay auction system. In this case, eBay Resolution Center leads the whole process of a dispute using the new concept we proposed. See Figure 5 for more information.

![Figure 5: Proposed solution of disputes by eBay using local personal details databases, source: author.](image)

5.2 Correctness of the received item in relation to the auction item

This problem was mentioned as a second most frequent. The fact, that the buyer receives different item than the item described in auction details, can happen with one of the following two reasons.

First of the reasons is that the user sent different item intentionally. In other words, he sent an item of different description or much lower quality than described in the auction details. The problem is then connected to the previous mentioned problem – credibility of auction participants.
Second reason is that the user has not mentioned some defects of the item, or did not describe the item well. Then we can say that there was a miscommunication between the seller and buyer. From my point of view, this situation could be improved by implementing additional tools or policies.

Additional policies according to this problem could be:

- At least one real photo taken by the user is required. The pictures should not be promotional pictures of the product.
- The pictures should depict possible defects of the item.
- Clear statement about the postal service that will be used and related responsibilities. (Possible use of Incoterms\textsuperscript{11})
- The auction have to include video files when the final auction price reaches more than 10 000 USD for the particular auction item.

Tools with possible positive effect on current situation could be:

- Description wizard (step by step description of the auction item with hints and tips),
- Photo wizard (showing preferred angles, photo format and attributes).

5.3 Refund problems

Problems with refunds are connected to the previous problem. According to the results mentioned above\textsuperscript{12} and to the further analysis (see Figure 6), we can say that most of the refund claims (around 42 \%) stay unresolved. It is either because of the complicated refund process, or it is because there is no way how to solve the particular problem. In other words, there are two possible sources of possible problems with refunds: impossibility (buyer could not get on to seller) or reluctance (seller does not want to make refund).

Around 38 \% of the refund claims is being solved individually. We can find a reason for this answer. Trades made on auction servers are based mostly on confidence in other users. Its successful operation is dependent mainly on this confidence rather than on some legislative refund policies. Therefore, as mentioned in the analysis, we can find individual solutions such as: Making a preceding agreement between buyer and seller that in case of a refund claim (sending item back to seller), they will share the costs of postage, or that the seller will refund the buyer with different goods (not money).

Minor form of a refund (around 4 \%) is the exchange of item for another one of the same type. This result is logical, because our analysis was aimed on the C2C auction market where many of the auctions are based on “one unique item per listing” concept\textsuperscript{13}. However, in some cases, where the seller lists more than one item of a particular type\textsuperscript{14}, this type of refund gets quite common.

\textsuperscript{11} See Incoterms 2000.
\textsuperscript{12} Where 93 users (out of 253 users) experienced some problems during their auction “career”.
\textsuperscript{13} Therefore, in most cases, the seller would not have a second item of the same type at his disposal.
\textsuperscript{14} Typical for B2C auctions.
The rest of the respondents (16%) solved the refund claim in a form of financial refund\textsuperscript{15}. This type of solution is relatively simple and inexpensive. A problem could be that there is no guarantee that the buyer will send back the item as well. In other words, the buyer would like the refund first and then he would send the item back to the seller. Seller would like the item first and then intend to refund. As we mentioned above, the auction trades and refunds are based on mutual confidence. However, user should take into account not only the user rating and user details, but also his own common sense, and his personal judgement made on the basis of communication with the particular user\textsuperscript{16}.

In some cases, sending back the item is more expensive than the cost of the item itself, the refund is usually solved on individual basis in a form of mutual agreement.

There are two possible solutions:
\begin{itemize}
\item There is no need to send the item back and the buyer gets a refund. This expects a concession of the seller. But after all, it could be a best fit solution for both, because the seller does not need to pay the postage (which in this case is more than the refund).
\item The buyer makes the concession, and does not want his money back. Most often, the purpose of this solution is that the item price is so low that the buyer does not want to spend time and communication on the solution.
\end{itemize}

However, these two solutions are rational only in case of trades with very low cost goods.

### 5.4 Payment transactions and their pairing to particular auctions

Problems with payment transactions are more relevant to EU countries, since in the USA, people mostly use PayPal for auction payments. In Europe, people tend to use multiple different systems like PayPal, PayPay, Moneybookers, or NoChex,

\textsuperscript{15}Money-back.

\textsuperscript{16}For instance: Communication style, form, timing, courtesy, etc.
Risks and problems of contemporary electronic C2C auction systems

popular standard banking services like „order of payment“, money transfer services like Western Union or Ruesch, cheques or locally „cash on delivery“ services. Complicated thing is that many people accept only one or two types of systems, which is not good for the market, since some of them do not offer „auction payment insurance“. In other words, they may not accept your refund claim, when something gets wrong with the particular trade. We can say that the safest way to pay in internet auctions is to use PayPal, since its owner eBay acquired the company few years ago and the PayPal system is partially integrated in eBay system.

However, there are several alternative services on the market that provide users of auction systems a sufficient level of protection, like Escrow. Escrow Payment is probably the safest way how to protect both participants of the trade. It uses a clear process in which both parties are insured that the trade will end positively, or they get a refund. The counterpart is that these services cost additional money that some of the users do not want to spend.

5.5 Legal protection of customers\textsuperscript{17} in EU

The problem of legal protection of customers in EU was the least mentioned of all possible answers, but it is a problem that is closely connected with a possible global European internet auction market. In different EU countries, there is different legislation. Problems are usually handled using legislation of the country, where the auction servers are located, where the particular trade took place.

The problem is that although there is a European E-Commerce Directive\textsuperscript{18}, the legislation in European Union countries differ\textsuperscript{19} and covers regulation in the auction field only partially. Therefore, it would be nice to have identical legislation arrangement in this field in all EU countries. Problem is that in many cases the trade is being made across EU border (EU↔USA, EU↔China, etc.) where the whole problem gets even more complicated.

Anyway, we can say that harmonizing the EU legislation has to be the first step before dealing with the legislation towards trade with third countries. The most difficult step would be establishing a form of customers’ protection for trades between EU and third countries, especially an effective enforcing of this legislation.

6. Conclusion

Electronic auctions face numerous problems, and it is evident that there is no clear proper solution. Especially the C2C auctions are in complicated situation, because there is no harmonized legislation, neither there is any legally enforced control of the participants themselves. These systems are at this time sufficient to provide a place to trade, but are not sufficient to guarantee efficient risk-free transactions. However, from my point of view, introducing numerous restrictive legislative rules is not the right way on a journey to effective electronic auction systems. It could

\textsuperscript{17} Buyers.

\textsuperscript{18} See E-Commerce Directive 2000/31/EC.

\textsuperscript{19} Moreover, the adoption in particular countries is different. Some countries introduced new directives, some countries added electronic trade law to multiple existing Acts.
potentially eliminate risks connected with the trades, but as a side effect, it can cause a massive outflow of participants.

Therefore we need to search for alternative methods how to reduce or eliminate these risks and connected problems. As I mentioned, one of the most effective ways could be changing the registration/account validation process, introducing new policies and providing additional auction tools to the users.

Nevertheless, harmonization of EU legislation in terms of electronic auction systems is necessary because of international dispute resolution, and existence of unified rules, rights and duties in the whole European area.

Implementation of the mentioned changes could from my point of view ensure sufficient improvement of these auction systems as a whole, and could lead to a creation of a new fully capable marked type widely used by the consumers.

References


