

Möllenberg, Antje

**Working Paper**

## Internet auctions in marketing: The consumer perspective

Arbeitspapier, No. 03/02

**Provided in Cooperation with:**

Technische Universität Braunschweig, Institute of Marketing

*Suggested Citation:* Möllenberg, Antje (2003) : Internet auctions in marketing: The consumer perspective, Arbeitspapier, No. 03/02, ISBN 3933628482, Technische Universität Braunschweig, Institut für Marketing, Braunschweig

This Version is available at:

<https://hdl.handle.net/10419/54775>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

Antje Möllenberg

**Internet auctions in marketing:  
the consumer perspective**

AP-Nr. 03/02

Technical University of Braunschweig  
College of Business Administration  
Department of Marketing  
ISBN 3-933628-48-2

<b>Contents:</b>	<b>Page:</b>
Abstract .....	1
1 Introduction .....	2
2 A consumer-oriented framework of internet auctions.....	2
2.1 Defininition of internet auctions .....	2
2.2 Business models .....	4
2.3 Shopping at an auction site.....	6
3 Previous research on auction customers .....	10
3.1 Auction theory .....	10
3.2 Consumer research .....	11
3.3 Internet user research .....	13
3.4 Conclusion from theories .....	15
4 Empirical study of auction customers.....	15
4.1 Method.....	15
4.2 Results .....	16
4.2.1 User types.....	16
4.2.2 Auction usage .....	17
4.2.3 Bidding behavior .....	20
4.2.4 Future marketing potential .....	22
5 Discussion .....	26
References .....	28
Author.....	30

## **Abstract**

Internet auctions for consumers are among the most popular and most successful business models in electronic commerce. Research so far, however, has focused on prerequisites and consequences of auctions as a marketing instrument of suppliers. Even though it is a key success factor from a marketing perspective, the demand side has not inspired similar attention.

This paper focuses on the attitudes, motives, and behavior of auction customers. It shows why current beliefs about bidder characteristics are myths. Taking these misconceptions as a starting point, the existence of an experiential and a pragmatic type of auction customer is proposed. An explorative empirical study looking for the characteristics of both types of auction customers is described.

Results indicate that less than half of auction shoppers in the study are experiential oriented. Except substantial additional demand concerning technological and emotional qualities of auctions these shoppers do not differ dramatically from pragmatic oriented shoppers. Both types are open-minded towards further development of consumer auctions to commercial marketplaces. Business models of auctioneers and suppliers should concentrate on the basic utility of the auction algorithm by facilitating individual matchmaking instead of pursuing costly additional utility by promoting the entertainment value of auctions.

## 1 Introduction

Internet auctions for consumers are one of the web's biggest success stories. Even after the initial euphoria about the "new economy" has been replaced by more realistic appraisals of e-commerce, the auction industry is regarded as a paragon of the net-based economy (Porter 2001, p. 67). Eliciting consumers' enthusiasm from the very beginning, a variety of most singular goods have been auctioned on the web, such as a vacation at Balmoral Castle, pop diva Madonna's bra, or debris of the Berlin Wall. The fact that auctions are increasingly used as a platform for everyday goods such as CDs, computers, books, and clothes is somewhat overshadowed by such unique, if spectacular auctions.

Consumer encounter internet auctions either as auctions from consumer to consumer (C2C) or as auctions from business (auctioneers or suppliers) to consumers (B2C). The "2C" in both suggests the term "consumer auction". Early C2C auctions were often dismissed by economists as "flea markets" (Schrage 2000, p. 92). B2C auctions have sparked considerably more interest in researchers and marketers. Still, this attention has focused on the supply side and neglected the customer. From a marketing perspective this is a serious omission, as consumer orientation or indeed any business model must be based on valid information about the customer. The intense and widespread involvement of consumers in internet auctions justifies a closer look at their motivation, attitudes, and behavior. From this analysis insights about the preconditions and consequences of using auctions in marketing may be gained.

## 2 A consumer-oriented framework of internet auctions

### 2.1 Definition of internet auctions

In *business administration*, auctions are defined as market institutions that take place as sporadic, real-life events, requiring the physical

presence of participants and goods. These characteristics obviously do not apply to auctions in the virtual market space. Interestingly, in Germany *legal definitions* of auctions do not exist. Moreover, legislation such as it is, is applicable to traditional auctions only. As they do not fit into the legal scheme, internet auctions have caused severe problems, many but not all of which have been amended by recent EU guidelines on e-commerce. A persistent, big obstacle as far as marketing is concerned is the lack of confidence in legal aspects of auctions in the minds of both customers and suppliers.

The definition of *auction theory* is more appropriate. Auctions are viewed as institutionalized methods for price formation, in which the allocation of resources is determined by an explicit algorithm based on the bids of market participants (McAfee/McMillan 1987, p. 701). The active, dominant role of the demand side is crucial to the auction process (Cassady 1967, p. 8). Internet auctions are best described as a virtual market institution relying on internet services (especially WWW and e-mail) to implement central (dynamic, bidder-driven price formation and allocation) as well as peripheral (catalog or bidder's register) auction features.

Internet auctions are modeled closely after traditional auctions. The internet helps to overcome temporal and spacial restrictions of traditional auctions and brings about a grave reduction in transaction costs. Generally, auctions are indicated in situations of market failure, e.g. when there is incomplete competition or uncertainty about prices. This may be the case when unique goods are offered, when the variability of prices is high, or when large amounts of goods have to be distributed very quickly. However, while classic auctions are restricted either to expensive, luxurious goods such as antiques or art, or to large amounts of identical merchandise such as produce, on the "virtual auction floor" the auction mechanism can be applied to every kind of product or user. Thus, with auctions the internet has enabled C2C electronic commerce on a wide scale (Lührig/Dholakia 2002, p. 120).

One consequence of the heterogeneity of auction definitions is the ambiguity of the term "auction" on different *semantic levels*. On the macroscopic level, an auction is an organized market event that con-

sists of multiple single auction sales. In this sense that recalls the definition of business administration, auctions are comparable to a shop offering a variety of goods. On the microscopic level, an auction is a specific instantiation of the auction algorithm and its parameters, leading to a single auction sale. This interpretation corresponds to the view of game theory on actions. And finally, internet auctioneers sometimes also are referred to as "auctions". Thus, "internet auction" may refer to a certain auction sale (e.g. a single eBay auction for a vintage teddy bear), an organized auction event, where several items are being auctioned (e.g. all offers on the eBay platform at a given point of time), or an internet auctioneer (e.g. the eBay company). This plethora of meanings may cause serious misunderstandings.

## 2.2 Business models

Internet auctioneers adopt one of two different business models, which entail opposing marketing concepts (table 1).

*Store auctions* (Elliott 2000, p. 2f.) realize the B2C consumer auction model by offering new merchandise and branded goods. To this end they cooperate with brand manufacturers and logistic services. Often they act as retailers by purchasing, stocking, and delivering goods. Short-termed auctions of just a few minutes duration, often conducted in real time, and presented by a human moderator mimic the glamorous atmosphere of real auctions. This so-called *auctainment* is meant to attract entertainment-seeking consumers. A parallel is the *brand strategy*: in saturated markets, consumer products and services are frequently augmented by additional emotional utility in order to distinguish a brand from its competitors. Two rationales underlie this approach (1) attracting customers by auctioning well-known brands, and (2) attempting to stand out in the saturated e-commerce market with its low entry barriers for competitors and many similar shopping and auction sites just "one click away".

The earliest example of the auctainment approach was US auction pioneer Onsale, founded in May 1995 (Lucking-Reiley 2000, p. 228f.). The model was adopted by many German pioneers. Examples are *Ricardo* (founded late 1998), *12snap* (a pioneer of mobile auc-

tions) and *Primus auctions* (an e-commerce branch of Metro Holding, the largest trading company in Germany). After an initial period of growth and enthusiasm however, nearly every B2C auction went out of business or re-launched their sites as C2C auctions.

*Open auctions* implement a C2C consumer auction model, although many of their representatives such as *eBay* currently are incorporating B2C activities as well. Open auctions list used goods, employ long term auctions between 3 and 14 days, and dispense with human auctioneers. Their users are assumed to be motivated by "bargains" rather than by experiential aspects of auctions. The most popular example is *eBay* (founded September 1995). The company entered the German market as a follower by taking over its German imitator *Alando.de* in June 1999, when *Alando* had been on the market for just three months. Although competition is strong, C2C auctions thrive and aim for the B2C market.

Models differ greatly in the way they target auction customers. The *auctionment model* as represented by early *Ricardo* attempts to generate exciting and entertaining auction events, while the *matchmaking model* as represented by early *eBay* facilitates finding and closing the best possible auction deal. In doing so, the *auctionment model* emphasizes the *auction process*, making the consumers' involvement in the bidding an important success factor. The *matchmaking model* on the other hand focuses on the *outcome* of the auction.

Obviously the *auctionment model* primarily targets a specific market segment, the thrill-seeking *auctioners*. The appeal of novelty and variety as an end in itself as well as enjoyment of the bidding competition are characteristics of this type of auction participant. The type of user that is addressed by the *matchmaking model* is much less obvious. This "no frills" approach zeroes in on the core of the auction process – negotiating a deal at a personal price. Thus, it may safely be assumed that the prevailing user type here is price, or rather value oriented.

Although the assumptions underlying both auction models offer some face validity, neither has been studied empirically. Very few studies of auction users actually exist. Most of what is assumed to be true about



auction users results from the portrayal of auctions and their users in popular media and the professional field and is no more than a myth (Herschlag/Zwick 2000). From some characteristics of auctions such as the risk they entail, the enticing price mechanism, the glamorous atmosphere of real auctions, and their unsuitability for everyday shopping, it is concluded that auction users must be risk-seeking, thrifty, and easy to snare by unique and even overpriced offers, if only they are presented in a stimulating atmosphere. This *implicit personality theory* (Cronbach 1955; Pervin 1978) yields a good starting point for empirical research on auction users but should not be the foundation on which to build a whole industry. Customizing auction marketing for auctainers or for bargainers may both fail: Auctainers are hard to please, because few attractions must be offered continuously or the auction experience will cease to be entertaining; bargainers constitute only about 8 % of active internet users (McKinsey 2000), which may not suffice to sustain a business model in the long run.

Transaction area	C2C	B2C
Business model	Open Auction	Store Auction
Example	eBay, Yahoo, hood	Onsale, Ricardo, Primus, Atrada, 12snap
Differentiation by product range	Used goods	New consumer goods, brand products
Differentiation by auction form	Long term auctions	Short term, real time, and event auctions
Differentiation by customer utility	Best bargain	Auction experience
Market positioning	Matchmaking	Auctionment
Target market	Bargainers	Auctainers

Table 1: Business models of internet auctioneers

### 2.3 Shopping at an auction site

Auctions involve three players with distinctive roles, motives, benefits, and risks (figure 1). The *auctioneer* evokes bids from the auction floor, repeats them aloud to bidders and knocks the item down to the

highest bidder. In internet auctions, these role is usually taken by the auction software; only the auction model featured human auctioneers. Because of the *seller's* passivity in traditional auctions, the roles of seller and auctioneer often are not demarcated (see 3.1). In internet auctions the seller is more active. The *bidder* plays the most prominent role in auctions, as auctions are determined by bidder activity (Cassady 1967, p. 8; Smith 1989, p. 174f.).

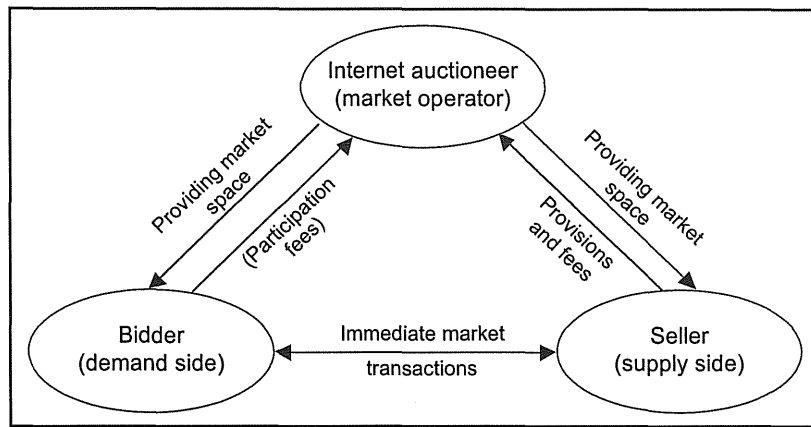


Figure 1: The tripolar structure of internet auctions

The *auction process* consists of three successive phases: before, during, and after the sale (figure 2). Most discussions of internet auctions focus on the price determination process. However, each phase requires active participation and implies its own marketing challenges. Exaggerated emphasis on the bidding process oversimplifies auctions and fosters misconceptions about auction users by concentrating on the most variable and exciting aspects of internet auctions.

- In the *pre-sales phase*, bidders locate and evaluate attractive offers. Sellers design and promote sales offers by selecting adequate values for the auction parameters (starting price and duration), and by providing the buyer with information (picture and verbal description of the item). The pre-auction phase ends with the bidder's decision to bid. Auctioneers support this stage by providing auction tools and counseling bidder and seller.

- The *sales phase* starts with the *auction phase*. Bidders take a very active part, continuously watching the auction and reappraising their valuation as others place bids, and alternative offers turn up. Sellers must content themselves with a passive role as they cannot influence the auction once the item goes online in the auction system.<sup>1</sup> Bidding is terminated according to an acceptance rule. Long term auctions usually end after a pre-defined length of time; short term auctions end when no bidding activity has been registered for some time. Auctioneers support this phase by intelligent software tools called bidding assistants. The second part of the sales phase consists of *payment and delivery*. Auctions can get extremely tedious at this stage, especially if many auctions must be managed at the same time. Many tools provided by auctioneers facilitate trading in this transaction phase, e.g. escrow or payment services.
- After the auction the activity shifts to seller and auctioneer. The seller prepares future sales. He is also answerable to guarantee claims. Auctioneers support this phase by customer-relationship and cross-selling tools. Auctions are naturally biased towards single transactions, so it is important though difficult to establish long-term relations between customer and seller as well as customer and auctioneer.

*Substitutes* for auctions from the shoppers' view may be any shopping form that offers comparable advantages to customers. Although no alternative has all distinctive characteristics of internet auctions, many substitutes can be identified both online and offline. In the C2C domain there are classified ads and flea markets (Beauchell 1999; Porter 2001, p. 67) as well as P2P online exchanges for deals with other consumers. In the B2C domain discounters and factory outlets offer attractive deals, mail order businesses and online shops conduct business from a virtual distance, and unique items at a bargain price can be found at real auctions or specialized retailers. But only internet auctions combine all of these qualities into one on a regular basis.

---

<sup>1</sup> German internet auctions do not even offer a reserve price option.

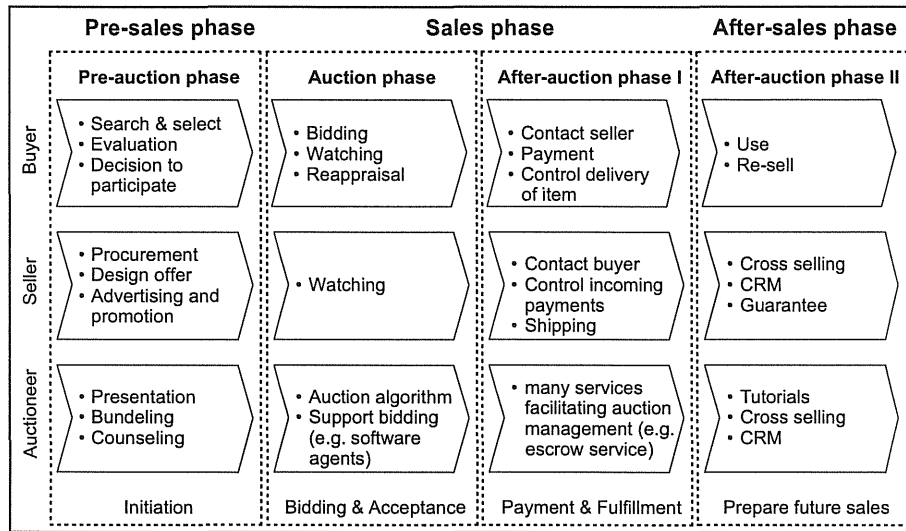


Figure 2: Transaction phases in internet auctions

The price mechanism also serves as a criterion for finding alternatives. In the offline world consumers normally encounter fixed-price B2C commerce. Counter examples are rare; only the oriental bazaar often serves as a metaphor for internet auctions (e.g. Lührig/Dholakia 2002, p. 113). For some expensive consumer goods (e.g. cars), individual negotiation of contract details also is common. Recently, German law has permitted individual bargaining in any consumer directed sale, having regulated price negotiations very tightly before; however, haggling at the baker's or in the shopping center is inconvenient and impracticable for both market sides and because of such transaction costs does not happen in reality. C2C shopping such as classified ads or flea markets do not impose such restrictions and thus offer adjusted prices as well, though at much higher transaction costs than internet auctions. In the online world, computer-implemented pricing algorithms enable other forms of consumer oriented price determination, e.g. co-shopping, name-your-price price-seeking, bilateral negotiation, or exchanges. Again, internet auctions are unique from the consumers' viewpoint, as they are the only price building mechanism to incorporate competitive pricing on the demand side and leave the supplier with a take-it-or-leave-it option.

### 3 Previous research on auction customers

Three fields of research apply to the study of consumer behavior at internet auctions, classic auction theory, consumer research, and internet user studies. These theories are now examined for evidence supporting the existence of two separate types of auction shoppers.

#### 3.1 Auction theory

In his seminal paper, Vickrey (1961) laid down the cornerstones of auction theory, which were to dominate the field in the following years. He outlined two basic auction models and compared them in terms of effectiveness and outcome for the seller. Since that time, auction theory has had a normative, supply-side emphasis (without distinguishing between the seller and the auctioneer), giving implications as to how auctions should be designed in order to maximize the seller's profit. The heyday of auction theory was in the 1980s, centering around the major contributions by Milgrom/Weber (1982) and McAfee/McMillan (1987), both with the traditional seller focus. During forty years of auction theory, the buyer's point of view has been addressed in a single paper (Matthews 1987), and even that at closer scrutiny turns out to be written from the seller's perspective.

In auction theory bidders are conceptualized as highly rational individuals. They are assumed to resemble each other closely regarding valuations, resources, and behavior. Bidder homogeneity is modeled by drawing the valuations on which bids are based from a common distribution without revealing them to the other bidders.

- In the simplest auction model valuations are independent of others' estimates and are determined by individual preferences. Situations in which this *independent private values model* applies are auctions for collectibles, for rare or unique items or any good that is intended for personal use only, so that the price can only depend on subjective utility.
- If on the other hand estimates are correlated because the bidders assume a common value to the good being auctioned, the *common*

*values model* applies. This is the case for resaleable goods, or any consumer good with a listed price or store price that is common knowledge. Bids may still differ because this common value often is unknown and has to be estimated. Table 2 provides an overview of both basic models.

Model	Independent private values	Common values
Valuation basis	individual, subjective utility, ex ante known	collective, objective value, ex ante unknown
Interdependence of valuations	independent preferences	estimates of objective value intercorrelated
Source of risk	preference uncertainty	quality uncertainty
Bids signalling	other bidders' preferences	unknown true value
Applicability	rare or unique items personal use	consumer good with listed price items for resale
Example	e.g. collectibles	e.g. licences, consumer goods

Table 2: Basic models of auction theory

Preferences are exogenous to the model, as are individual differences in behavior, resources or attitudes. Any diversion in these factors before, during, or after the auction cannot be captured by auction theory. Also, while classical auctions were being held for homogenous groups of buyers (e.g. flower sellers, antiques or stamp collectors) who often were chosen and invited by the auctioneer, the users of internet auctions are extremely heterogenous due to virtually unrestricted access.

So, looking at auction theory does not really help. Still, auction theory suggests two basic types of auctions (although this distinction is based on the type of goods) and allows for the inference of two types of users.

### 3.2 Consumer research

Two areas of consumer behavior research seem related to auction buyer behavior: *purchase decisions* (Kotler/Armstrong 1994, p. 162ff.) and *purchase motives* driving a consumer's choice.

There are four kinds of purchase decisions which usually go with a special type of good (Kotler/Armstrong 1994, p. 162ff., p. 278):

- *Extensive purchase decisions* occur when the good to be purchased is expensive, and the decision is unique. As all alternatives are new and must be considered, deciding takes a lot of cognitive effort. Every shopper new to internet auctions or looking for luxurious or very rare offers (*specialty goods*) is forced to extensive decisions.
- *Limited purchase decisions* can fall back on a reduced set of evoked alternatives because of previous shopping experience or a preselection of brands. The effort of deciding also is smaller. The type of good associated with this type of decision making is called *shopping goods*. As will be shown below, most purchase decisions in internet auctions can be expected to be of this type.
- *Impulsive purchase decisions* are triggered by a stimulus in the shopping situation, leading to a spontaneous, uncontrollable urge to buy. The goods most appropriate to these decisions are called *impulse goods*. Some internet auctions try to induce this kind of decision making by live auction events and human moderation (auctainment model; see 2.2).
- *Habitual purchase decisions* require very little effort. They result from repeated occurrences of any other type of purchase decision which cause complex cognitive processes to be compiled into simpler behavioral routines that are executed automatically on presence of the stimulus. Goods which widely correspond to habitual behavior are called *convenience goods*.

Auctions provide buyers with several ways to look for offers, fostering at least two ways of decision making: Browsing the auction site promotes impulsive bidding, whereas search machines constitute a more rational approach to finding an interesting auction. However, because each and every auction anew has to be evaluated in terms of supplier, quality, price level and so on, the auction purchase decision must always remain a complex decision. This undermines both impulsive behavior as well as the habitualization process. Internet consumer auctions could therefore never really be convenient. This is especially true if the buyer participates in many auctions simultaneously. Increasing auction experience, acquaintance with the auction

platform and previous shopping experience will render limited purchase decisions most probable.

German research on *purchase motives* has suggested five basic motives: price orientation, experiential orientation, convenience orientation, brand orientation, and service orientation.

Online shoppers are assumed to be motivated mainly by price, convenience, and brands. Although the original positioning of suppliers as bargain dealers has probably played an important part in generating the price pressure predominant in e-commerce today, innovative pricing mechanisms such as auctions do cover an existing need of online customers. Brand orientation may serve as a means to further differentiate between a mere *bargainer* who is interested in the cheapest buy, and the so-called *smart shopper*, who actively seeks out brands at the lowest price possible (Esser 1999).

Experiential orientation refers to shopping for motives other than obtaining the product, e.g. diversion from daily routine, self satisfaction, physical activity, communication, peer group attraction, status, or pleasure of bargaining (Li/Kuo/Russell 1999). The term *recreational orientation* (Tauber 1972) captures such shopping motives more closely. It has often been argued that the internet is unable to fulfill experiential demands, concluding that online shoppers should score lower on items measuring recreational or experiential orientation (e.g. Loevenich 2002). Empirical evidence on this topic is not straightforward. In an early US study, no differences between frequent online-shoppers and non-online shoppers concerning recreational orientation were observed (Li/Kuo/Russell 1999). A more recent German study found significantly higher recreational as well as price orientation in online shoppers as compared to non-shoppers (Loevenich 2002). Internet auctions as a comparably emotional type of online shopping may at least partially explain this result.

### 3.3 Internet user research

Specific studies about auction customers are rare. Elliott (2000, p. 39) differs two types of auction customers: *collectors* and *bargainers*.



Without further explanation, German researchers have added the "*serious shopper*" to these types (Weinhardt/Schmidt 2001), thus implying that the first two types are not to be taken seriously.

From panel data the *German market research company GfK* has derived six types of "e-commercers" (i.e. people doing online shopping) (Spohrer/Bronold 2000). Most prominent were the so-called *professionals* and *practitioners* who react strongly to new offers and are interested in attractive and easy-to-use commercial sites. Because of the potential entertainment value of internet auctions, *gameboys/cyber-girls* as young and brand oriented e-commercers also belong to the target market.

From MediaMetrix's US panel, McKinsey has also arrived at six shopper types. Most important e-commercers are utility-oriented *simplifiers* and price oriented *bargainers*. More than 50 % of visits at eBay.com are attributed to bargainners looking for good value and special offers (McKinsey 2000).

Both typologies identify one type that is curious and open-minded but has been busy more with browsing than with shopping and thus is no e-commercer (*Clicker/GfK; Surfer/McKinsey*).

There are some similarities between these typologies: Each identifies some types that primarily seek emotional experiences, and others that are rational and goal oriented. This resembles the distinction made by Hoffman/Novak (1996) who suggested two behavioral categories of internet usage:

- *Goal oriented user behavior* is characterized by extrinsic motivation, highly structured selective search, and high involvement. Users are result oriented, i.e. they want to find a solution to a problem or get done with a task. In auctions such behavior occurs when seeking offers by specified criteria and on definite demand.
- *Experiential user behavior* is characterized by intrinsic motivation, unstructured, associative and hedonistic behavior. Users are process oriented, i.e. carry out the behavior for its own sake. In auctions this kind of behavior is found as browsing the site without acute

demand or as spontaneous bidding near the end of an auction. Auctioneering is trying to induce and exploit process orientation.

### 3.4 Conclusion from theories

On examination of implicit user theories, economic theories of auctions and behavioral theories two types of auction shoppers repeatedly emerge. This paper therefore proposes the existence of two shopper types. Based on the corresponding marketing concept the experiential oriented customer is called *auctainer*. Analogous to the smart shopper the result oriented customer will be called *smart bidder*. Each type is attributed certain preferences, characteristics, and behaviors (table 3).

Attribute	Auctainer	Smart Bidder
Motive	experiential/recreational orientation	price orientation, pragmatic orientation
Information seeking	browsing; emotional stimuli	seeking; cognitive stimuli
Intention	process	result
Purchase decision	impulse purchase	limited purchase
Risk attitude	risk seeking	risk averse
Shopping experience	unexperienced, new customer	experienced, repeated buyer
User type	experiential/recreational type	bargainer, practitioner
Purpose	personal use, collecting	personal use, reselling
Auction model for brand purchasing	independent private values (emotional differentiation)	common values (price orientation)
Bidding behavior	aggressive bidding	bargain bidding
Marketing concept	auctioneering	matchmaking

Table 3: Proposed types of auction customers

## 4 Empirical study of auction customers

The following data is taken from a doctoral thesis on internet auction shoppers (Möllenberg 2003).

### 4.1 Method

The study used an explorative survey design. Shopper types were constructed post-hoc. The differences concerning auction usage, bidding behavior, and future marketing potential of auctions were then examined using univariate and multivariate statistical procedures.

A combination of e-mail survey and web survey seemed appropriate as internet auctions require their participants to rely heavily on virtual communication methods anyway. The study was conducted in the months of May and November as during these periods there are no major holidays and users are most likely to participate in auctions.

In November 2000, 2,382 auctions at eBay.de were randomly accessed. Auctions were selected by calling an eBay interface routine returning the list of 100 auctions about to end next. These were then called one by one (having ended in the meantime), and saved into a database. Auctions that were illegal, not consumer-oriented, or not meant for the German market were excluded from further analysis.

In May 2001, every seller and highest bidder from these auctions was contacted by e-mail and asked to participate in a web survey. All in all, 2,791 addresses were used (1,522 sellers, 1,228 buyers plus 41 more addresses from a practice sample). After invalid addresses and refusals to participate were excluded, 2,602 addresses (93.2 %) remained in the sample. 436 completed web questionnaires (16.8 %) were returned.

## **4.2 Results**

### **4.2.1 User types**

Subjects classified themselves into four basic user types based on verbal descriptions. They indicated both the best and the second best fitting description. Only about one quarter of participants viewed themselves as the experiential type. Half said they were the pragmatic type, and one fifth considered themselves price oriented (figure 3).

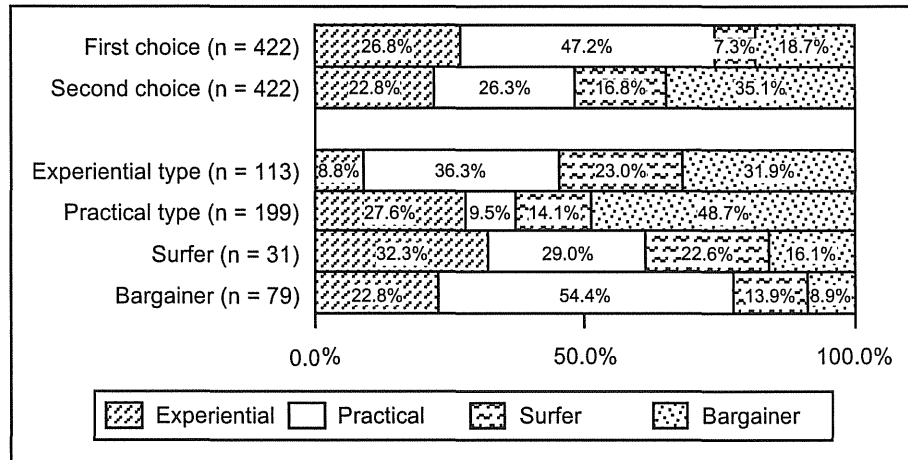


Figure 3: Self categorization into types

Surfers were excluded from further analysis as they were very few and by definition did not shop at auctions or on the web anyway. The remaining subjects were regrouped by the following rule: All subjects featuring the experiential type as either first or second choice were regrouped as *auctainers*. All other subjects featuring any combination of price or pragmatic orientation were regrouped as *smart bidders*. This process resulted in two comparably sized subsamples with 186 (auctainers) and 205 (smart bidders) subjects.

#### 4.2.2 Auction usage

Smart bidders have been using the internet longer than auctainers (3.99 vs. 3.63 years;  $T = -1.616$ ,  $p = .11$ ). There is no difference in current *frequency* of internet access, but in access *place*: auctainers much more frequently use their home access whereas smart bidders access the net equally or more often from the work place ( $\chi^2 = 13.91$ ,  $df = 2$ ,  $p < .01$ ). The attitude towards risk was operationalized as a fixed-price traditional retail buy (certainty equivalent) as opposed to a risky auction alternative. No significant difference of means was found: Both types tend to be slightly risk seeking. On closer inspection of the distribution smart bidders turn out to contain more especially risk averse buyers.

The analysis of *auction experience* indicates large interindividual differences within groups rendering means differences mainly insignificant. On the surface, smart bidders bid on (160 vs. 123;  $T = -0.616$ ) as well as won (33.2 vs. 32.6;  $T = -0.093$ ) more auctions than auctainers in the three months preceding the study. They also spent more money per auction (69.40 DEM vs. 57.00 DEM;  $T = -1.136$ ). As regards the *type of goods* bought, auctainers buy more unique goods and entertainment articles, while smart bidders buy consumer goods. Both customer groups cover a large proportion of their demand (between 40 and 75 % depending on product category) via auction. Finally, the *purpose of purchase* indicates that auctainers tend to give away their auction purchases either by resale or as a gift, while smart bidders keep and use them ( $\chi^2 = 5.58$ ,  $df = 2$ ,  $p < .05$ ).

Users were also asked to rate some reasons for and against taking part in internet auctions. Hardly any differences were found. In the exploratory factor analysis of the *reasons for auction participation* three factors were extracted: *attractive features of auctions*, *unattractive features of other shopping forms*, and *exclusiveness of auction sales offers*. Auctainers agreed significantly more to the item "bidding is fun" (figure 4).

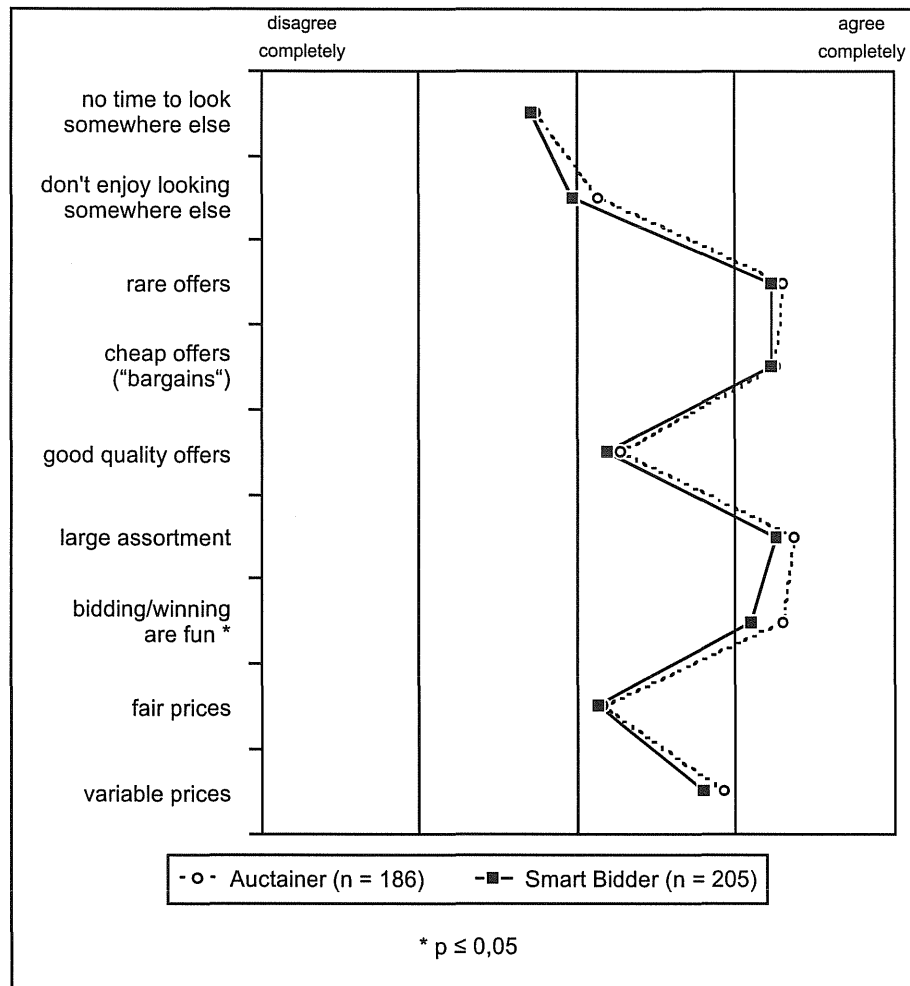


Figure 4: Reasons for using auctions

The exploratory factor analysis of *reasons against auction participation* yielded three factors capturing phase specific problems of auction transactions. Both types of buyers view the *pre-sales phase* as most critical, e.g. quality uncertainty or seller reliability. Problems during the *sales phase* itself are rated second, while the *after-sales phase* is seen as the smallest cause of difficulties (figure 5).

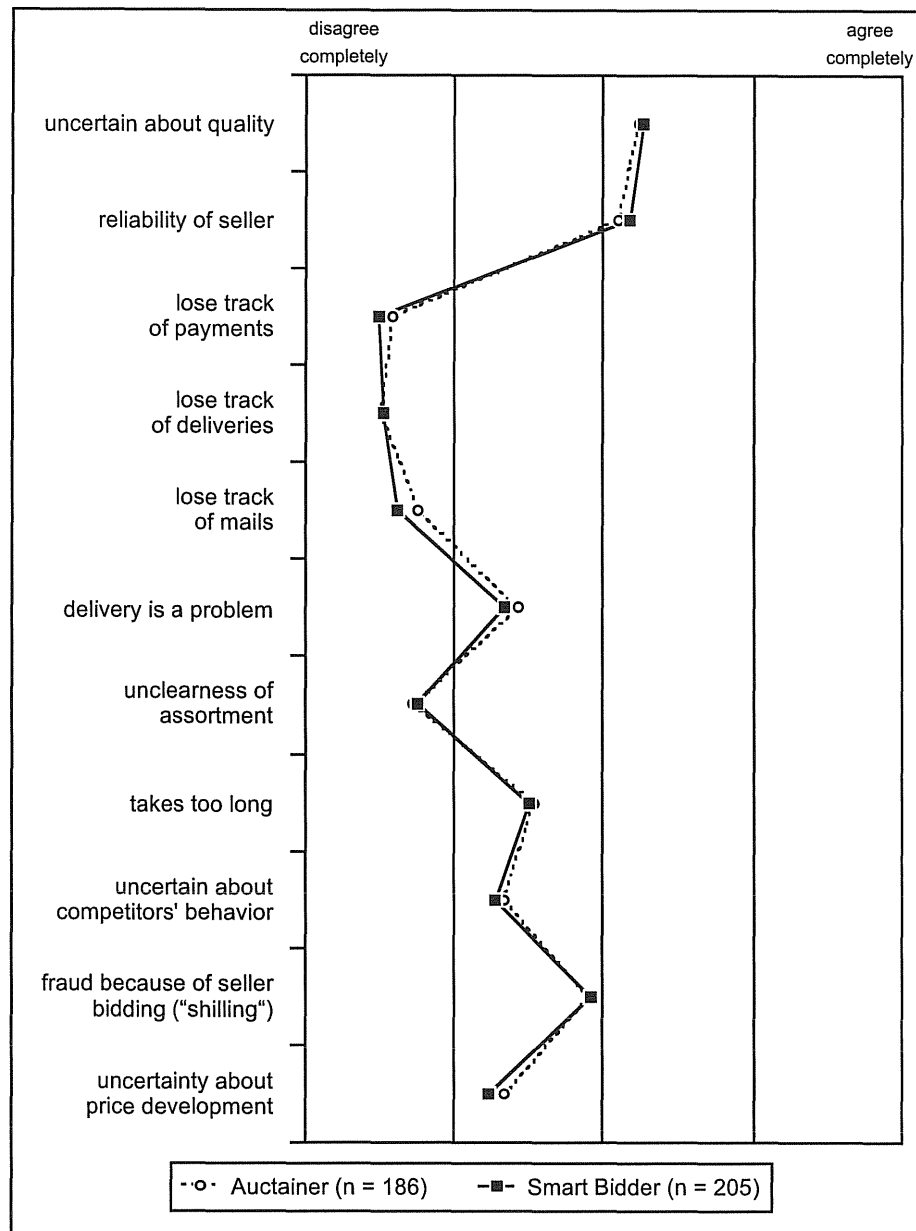


Figure 5: Reasons against using auctions

#### 4.2.3 Bidding behavior

Construction of customer types was guided by the idea of separating experiential oriented customers from all other types. To demonstrate the success of this attempt *bidding behavior* is analyzed. Many differences between auctainers and smart bidders can be seen (figure 6). Ex-

ploratory factor analysis returns a five dimensional structure of bidding behavior. The differences can be traced back to two factors: Auctioneers score higher on the factor *experiential strategy* (0.176 vs. -0.116;  $T = 2.922$ ,  $p < .01$ ); smart bidders score higher on *pragmatic strategy* (-0.129 vs. 0.143;  $T = -2.749$ ,  $p < .01$ ). This result may be taken as validity proof of group construction. The other three strategies were named *valuation by common value*, *valuation by independent value*, and an especially conservative *cautiousness strategy*.

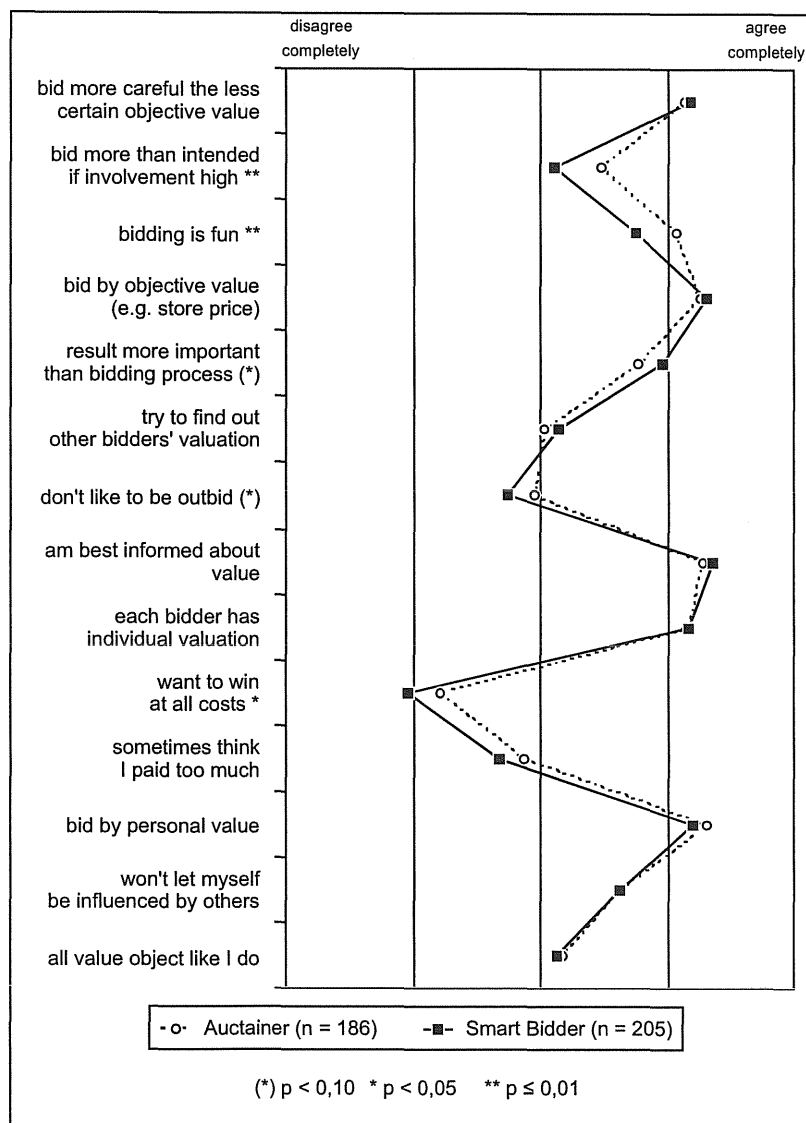


Figure 6: Bidding behavior



#### 4.2.4 Future marketing potential

The *acceptance for new merchandise* and for *commercial sellers* are important indicators for buyers' affinity to commercial consumer auctions (B2C). For both indicators means in the indifference range were measured; new merchandise was rated slightly more favorable (3.26 on a scale from 1 = rejection to 5 = preference), commercial sellers were rated slightly less favorable (2.72). A look at the frequency distribution shows that more smart bidders prefer used merchandise and private sellers, although differences are not statistically significant.

When asked what features would increase *auction adoption*, notable differences between user groups were found (figure 7). Auctainers showed a marked preference for live auctions, fixed-price formats, and power shopping. In an exploratory factor analysis this bundle of variables was identified as a separate dimension (*innovative sales formats*) with significantly higher factor scores of auctainers as compared to smart bidders (0.202 vs. -0.147;  $T = 3.390$ ,  $p < .001$ ).

To auctainers offline information and access are more important than to smart bidders. In combination with the items "mobile information" and "mobile access" these items also load on a distinct factor (*alternative access*). Auctainer score much higher on this factor than smart bidders (0.040 vs. -0.164;  $T = 2.030$ ,  $p < .05$ ). Other dimensions of adoption factors were identified as *fulfilment support*, *additional information*, and *standard interface features*.

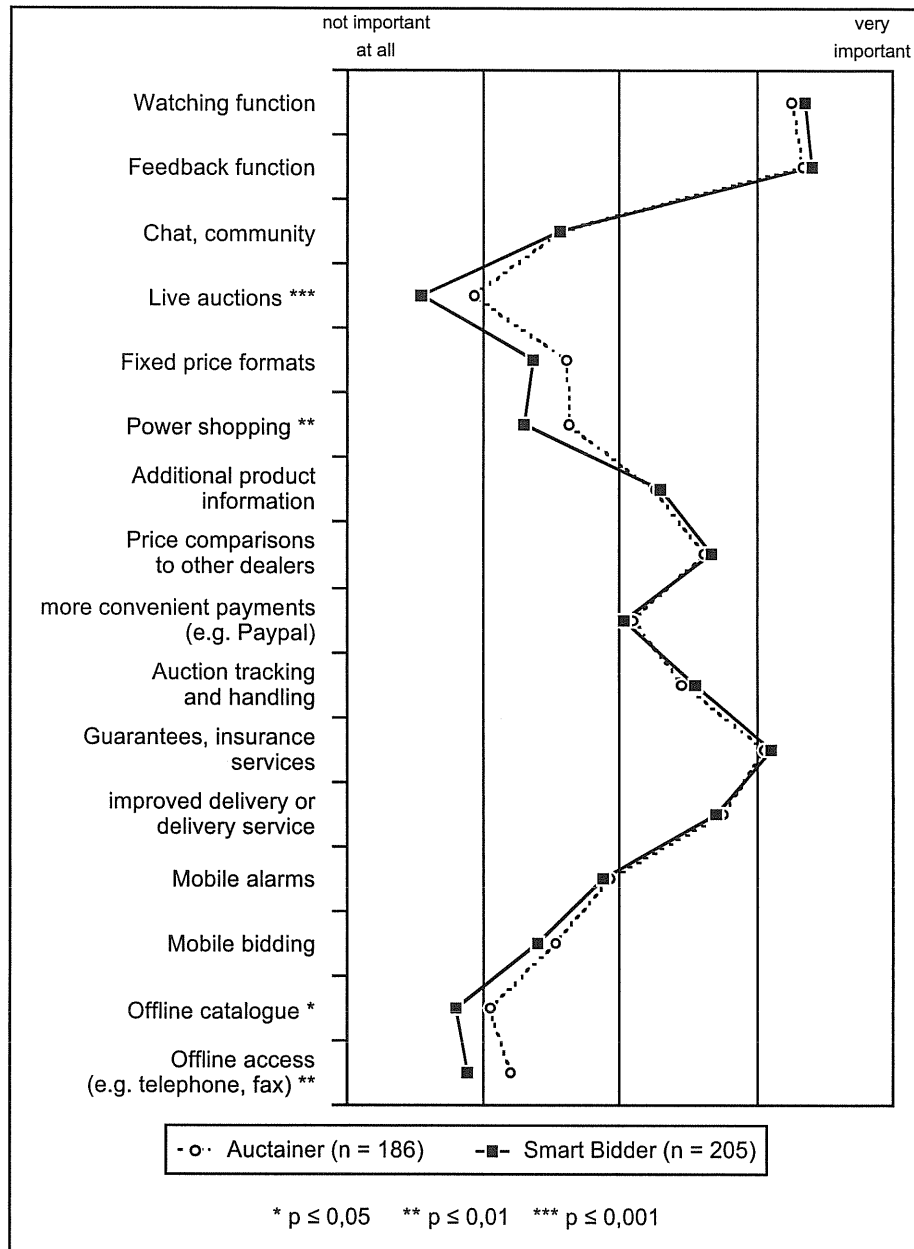


Figure 7: Auction adoption factors

To look for *perceived alternatives to auctions*, subjects were put in a fictitious forced choice situation (where to shop if there no longer were such a thing as internet auctions). Auctainers then tend to prefer any form of e-commerce more than smart bidders (figure 8). Power shopping is the worst alternative to both groups. The best alternative for the auctainers is online shopping, for smart bidders brick-and-

mortar retailers. Traditional mail order rates medium high with both groups.

This item operationalizes only preferred substitution of auctions by other shopping forms. The reverse interpretation, substitution of the alternative shopping form by auctions and thus the threat to traditional distribution channels is not a valid inference. However, the ratings observed here may serve as a heuristic or a plausible approximation.

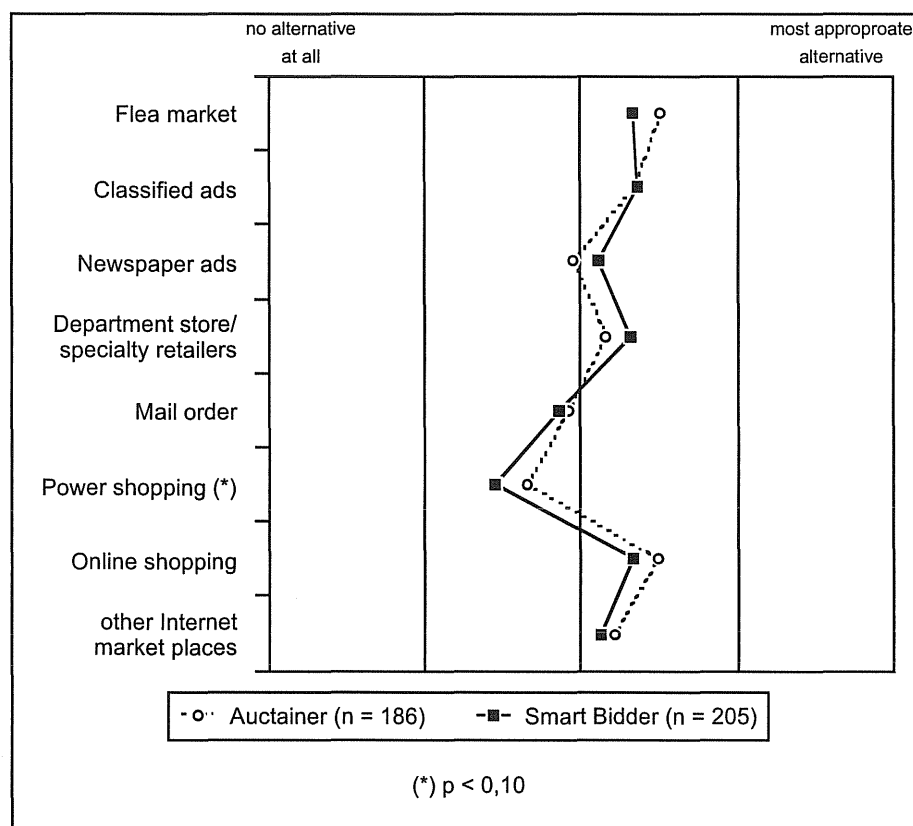


Figure 8: Alternatives to auctions

Today some goods are not typically sold via auctions. In the analysis of purchasing readiness towards these goods it turned out that both user types can best imagine the purchase of *shopping goods* (figure 9). The least potential is attributed to fresh groceries that indeed seem rather unsuitable for auction. An exploratory factor analysis additionally returned the dimensions *standardizable goods* and *goods for everyday use*. On this final factor auctainers score significantly higher,

i.e. they would tend more to buy everyday consumer goods in auctions. The item services that loaded high both on the factors shopping goods as well as on goods for everyday use may be interpreted that personal services would presumably be bought mainly by auctainers.

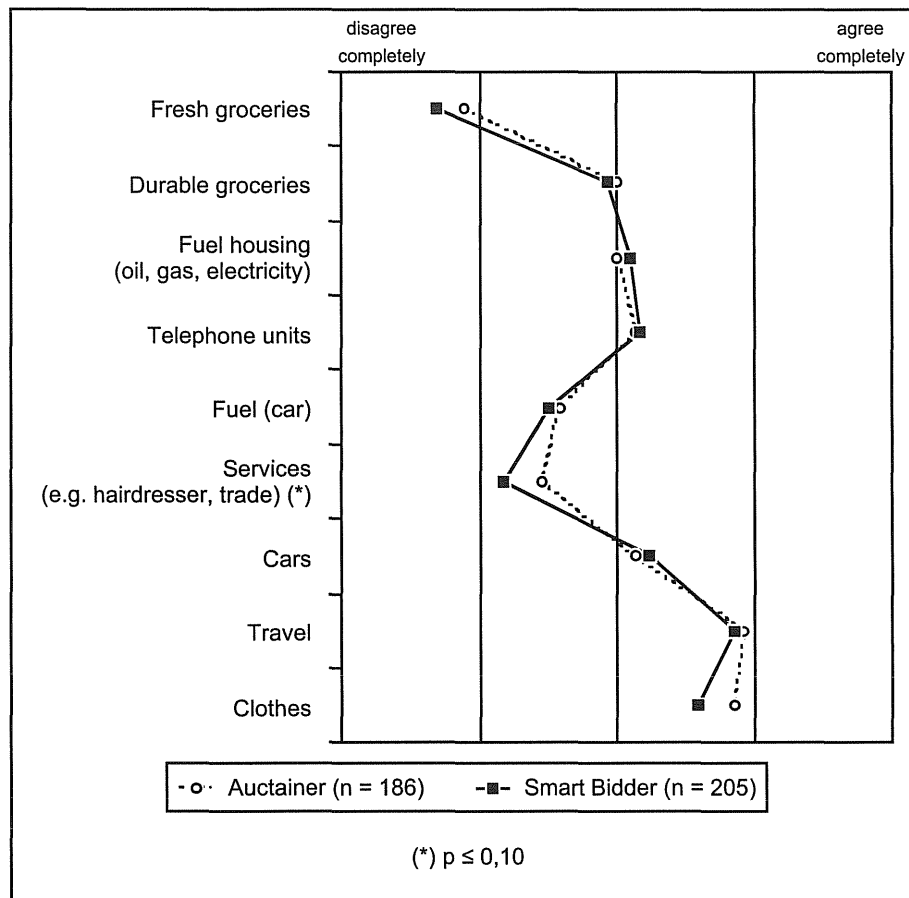


Figure 9: Future auction goods

Finally the attitude towards the *imminent development of private into commercial consumer auctions* was addressed. Both user types judged this expansion controversially, but mainly favourably (figure 10). Assortment and choice are expected to improve; brand products are seen as enriching. Smart bidders do not expect the quality of auctions to be diminished, while auctainers are much less sure of that. Exploratory factor analysis showed that all in all auctainers tend to perceive more *chances* as well as more *risks* than smart bidder, although on both factors their factor values do not differ significantly.

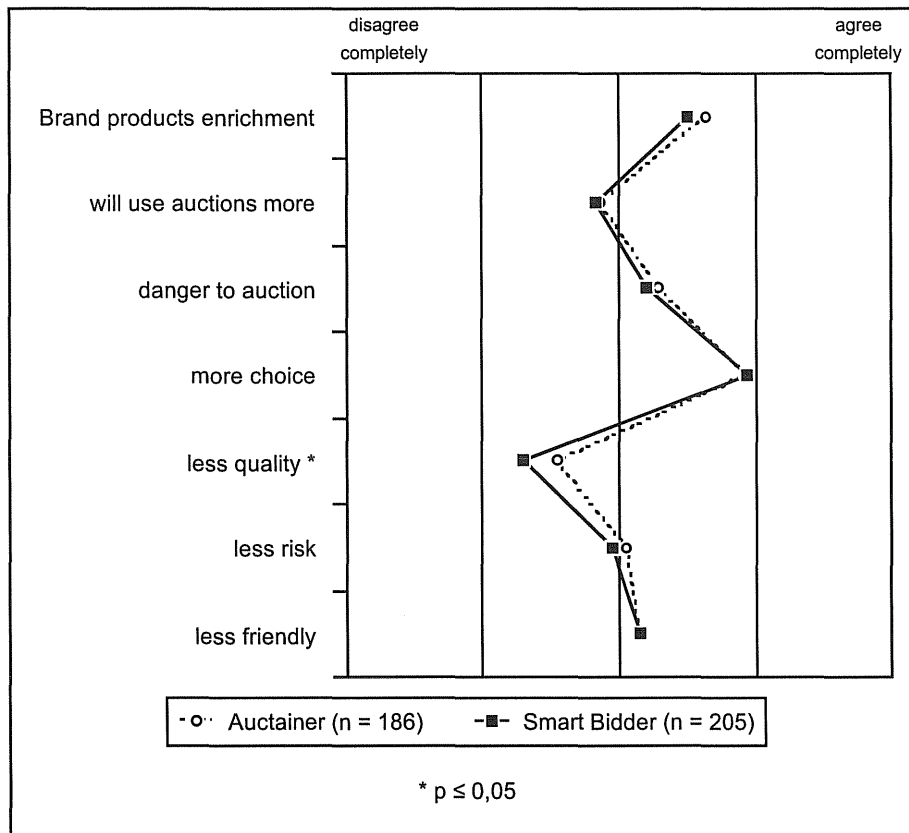


Figure 10: Attitude towards commercial auctions

## 5 Discussion

Previous research was not concerned about internet auction customers. Generally auction shoppers are thought to be thrill-seeking bargain hunters. Several theories and empirical results indicate the existence of two different types of auction customers, an experiential type and a pragmatic type. The empirical study reported here examined behavioral differences between such types. Results offer several implications for research and for the marketing of internet auctioneers and suppliers.

Foremost *research* task is the replication and comprehensive validation of shopper types derived in this study. A more thorough integration of auction buying behavior with theories and models of consumer behavior or the smart shopper phenomenon looks promising.

*Internet auctioneers* should note that experiential shoppers are a minority. In many traits auctainers and smart bidders do not differ much; auctainers are simply experiential oriented as well. Business models exploiting this additional utility (auctainment) while neglecting the core utility of the auction algorithm (individual matchmaking) are unable to retain customers in the long run. Because of the peculiar quality of novelty of losing its flavor automatically, this is true even if the absence of the basic utility remains undetected; it is the more true if shoppers notice manipulative intentions. The auctainment model thus seems substantially flawed and the existence of a durable competitive advantage doubtful. The failure of this approach in the real world must not be confused with the failure of B2C auctions on the whole. Ebay's success in penetrating the market niche left by the auctainment model demonstrates that this is not true. Future success of auctions will depend on developing bidder tools that further facilitate transaction management.

*Commercial suppliers* who want to put consumer goods and services up for auction can count on the fact that auctions are a well established, popular, and generally accepted form of online shopping. High purchase frequency and large percentage of demand covering via auctions make the auction customers studied here a very attractive target market of e-commerce, one that is highly committed to auctions and perceives very few difficulties. Auctainers are somewhat more open-minded than smart bidders but they are probably not the better customers: They report more unintentionally high bids and less contentment after the purchase. The lack of return options in most auctions may explain their tendency not to keep auction goods. Moreover, auctainers must be offered an additional "auction experience", causing surplus costs to the seller. The biggest obstacle to auction adoption by sellers probably is the lack of control over progress and final price of auctions. Judging by their customers, initial chances of consumer auctions as a marketing tool can be rated excellent.

## References

- Bearchell, C. A. (1999): Will the Internet change your pricing policies?, in: *Marketing Journal*, 32 (3), p. 137.
- Cassady, R. J. (1967): *Auctions and auctioneering*, Berkeley, CA: University of California Press.
- Cronbach, L. J. (1955): Processes affecting scores on "understanding of others" and "assumed similarity", in: *Psychological Bulletin*, 52 (3), pp. 177-193.
- Elliott, A. C. (2000): *Getting started in internet auctions*, New York: Wiley.
- Esser, B. (1999): Smart Shopping, in: *Die Betriebswirtschaft*, 59 (6), S. 855-857.
- Herschlag, M./Zwick, R. (2000): Internet auctions – a popular and professional literature review, in: *Quarterly Journal of Electronic Commerce*, 1 (2), pp. 161-186.
- Hoffman, D. L./Novak, T. P. (1996): Marketing in hypermedia computer-mediated environments: conceptual foundations, in: *Journal of Marketing*, 60, pp. 50-68.
- Kotler, P./Armstrong, G. (1994): *Principles of Marketing*, 6th ed., Englewood Cliffs, NJ: Prentice Hall.
- Li, H./Kuo, C./Russell, M. G. (1999): The impact of perceived channel utilities, shopping orientations, and demographics on the consumer's online buying behavior, in: *Journal of Computer-Mediated Communication*, 5 (2), pp. 1-20.
- Loevenich, P. (2002): *Substitutionskonkurrenz durch E-Commerce*, Wiesbaden: Gabler.
- Lucking-Reiley, D. (2000): Auctions on the internet: what's being auctioned, and how, in: *The Journal of Industrial Economics*, 48 (3), pp. 227-252.
- Lührig, T./Dholakia, N. (2002): Online auctions: The emerging new electronic agora, in: Dholakia, N. et al. (eds.): *Global e-commerce and online marketing*, Westport, CT: Quorum, pp. 111-121.
- Matthews, S. A. (1987): Comparing auctions for risk averse buyers: A buyer's point of view, in: *Econometrica*, 55 (3), pp. 633-646.
- McAfee, R. P./McMillan, J. (1987): Auctions and bidding, in: *Journal of Economic Literature*, 25, pp. 699-738.
- McKinsey (2000): All visitors are not created equal, [http://www.business2.de/essentials/studien/McKinsey\\_Ecom.pdf](http://www.business2.de/essentials/studien/McKinsey_Ecom.pdf) [21.4.2001].
- Milgrom, P. R./Weber, R. J. (1982): A theory of auctions and competitive bidding, in: *Econometrica*, 50 (5), pp. 1089-1122.
- Möllenberg, A. (2003): *Internet-Auktionen im Marketing aus der Konsumentenperspektive*, Braunschweig: Eigenverlag (Doctoral Thesis Technical University of Braunschweig).
- Pervin, L. A. (1978): *Current controversies and issues in personality*, New York, NY: Wiley.
- Porter, M. E. (2001): Strategy and the Internet, in: *Harvard Business Review*, 23 (3), pp. 63-78.
- Schrage, M. (2000): The Creative Mind – To Hal Varian the price is always right, in: *Strategy & Business*, 3 (18), pp. 82-89.

- Smith, C. W. (1989): Auctions: the social construction of value, New York: The Free Press, MacMillan Inc.
- Spohrer, M./Bronold, R. (2000): GfK Online-Monitor, 5. Untersuchungswelle, Juni 2000, Nürnberg: GfK AG Medienforschung.
- Tauber, E. M. (1972): Why do people shop, in: Journal of Marketing, 36, pp. 46-59.
- Vickrey, W. (1961): Counter speculation, auctions, and competitive sealed tenders, in: Journal of Finance, 16, pp. 8-37.
- Weinhardt, C./Schmidt, C. (2001): Internet-Auktionen, in: Bühner, R. (ed.): Management-Lexikon, München: Oldenbourg, pp. 383-386.



## **Author**

**Dr. Antje Möllenberg** was research assistant and lecturer at the Department of Marketing, Institute of Business Administration and Economics, Technical University of Braunschweig, Germany. She is now a freelance marketing consultant.