

First, Second, Third... Sold!

Factors influencing the purchase intention at auctions

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Abstract

The present study investigates factors that determine the purchase intention to buy goods at offline auctions. When taking into account the literature gap regarding comprehensive evaluations of offline auctions, the relevance of the study becomes evident. A model is presented which combines components from the theory of Planned behavior as well as the

factors perceived value influenced by perceived quality, perceived price, and trust influenced by reputation and service quality which can have an influence on the purchase intention at auctions. Data were collected from 211 respondents by an anonymous survey and distributed to auction visitors, from which 191 filled in the questionnaire completely. By help of a hierarchical regression analysis, it was found that attitude, perceived value, perceived product quality, perceived price and trust are significant predictors of purchase intention at auctions. A Sobel test found that perceived value and trust act as mediators for purchase intention at auctions. This model allows relevant insights for auction businesses as they can provide consumers with more satisfying conditions to bolster buying intention. Consumers can profit as they make buying decisions more consciously and get away from bulk buying and the support from mass production.

Key Words Auction, Purchase Intention, Perceived Value, Trust, perceived price

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1. INTRODUCTION

The earliest 20th century saw the rise of unconscious consumerism. Due to a steady worldwide economic growth since the 1980s, especially in Germany, society's financial power increased, stimulating societies purchase behavior (IMF World Economic Outlook (WEO), April 2016). At the same time, different and yet hazardously similar products form overly saturated markets, representing rivalry among companies (Leonard, & Rayport, 1997; Dapkevičius, & Melnikas, 2011). Frequent purchase activities are stimulated through competition among customers to have the "newest" and coolest product because certain people strive to promote their self-concept through product extensions (Belk, 2013). What results is increasing demand that enlarges supply and thus overproduction. Markets get even tenser due to increasing competition among companies as well as customers (Cheng & Huang, 2013).

Meanwhile, society's mentality is at a point where a two-year-old mobile phone is already considered outdated, representing a competitive advantage to businesses of all kinds. Every company's goal is increasing consumer's purchase activity (Cheng & Huang, 2013), leading to a society living in abundance. This development has a considerable impact on issues such as overproduction and product overload. Specifically, reusing products by purchasing second hand promotes reusability while it reduces waste production and environmental pollution.

The reason overproduction leads to a decrease of re-use is the missing need to put effort into searching for a specific product second hand. It can be bought new in various nearby stores unproblematic. However, in accordance with Marshall's explanation of demand and supply (1890), if demand decreases because people purchase items at auctions, the supply of certain products decreases as well, solving the problem of

overproduction. Excellent locations to promote reusability are auction houses. This investigation aims to shed light on what influences a person to purchase something at an auction.

What exactly is an auction and why do people make purchases there? The traditional auction is one of the oldest forms of commerce (Business Week, 1999), dating back to the 1870s, when they allocated ineffective markets such as rare goods or collector items (Schmidt, Weinhardt & Horstmann, 1998; Ariely & Simonson, 2003). Today, auctions provide a gathering where new as well as second hand articles in “good” and “utilized” conditions are brought back to the market. Possible prospective buyers can evaluate products and prices when participating. At the same time, numerous shopping possibilities arose by easy access to products through shopping malls and the Internet, stimulating overproduction and abundance. An issue that arises is concerned with the *factors that motivate people to purchase at auctions* nowadays. Having this knowledge is expected to promote conscious buying behavior.

In a common dealer market, customers purchase products at a dealers selling price. In an auction market, dealers try to sell at a previously established minimum oftentimes being extended by a customer’s previously evaluated bid (Huang & Stoll, 1996). This brings a certain risk in the quality-price evaluation of both parties (Berger & Schmitt, 2005).

Within traditional auctions, one can differ between five heterogeneous forms of auctions that mainly differentiate based on the acceptance of bid (Schmidt, Weinhardt & Horstmann, 1998; Li & Riley, 2006). The English auction is the most common form where bidders increase their bids incrementally until there is one bidder left. Regarding the Dutch auction, the auctioneer introduces a price that is constantly lowered until the first bidder accepts it and thus receives the acceptance of bid. In the First Price sealed bid auction,

every interested bidder can hand in a concealed bid to the auctioneer. The person with the highest bid receives the acceptance. Slightly different, in the second price sealed bid auction, the highest bidder receives the acceptance of bid for the price of the second highest bid. Finally, in the double auction, the buyer as well as the seller of a certain good can make open bids that can be accepted by the opposite party (Schmidt, Weinhardt & Horstmann, 1998).

One can differentiate between *online* auctions and traditional *offline* auctions. An online auction can be defined as a process where participants sell or bid for products or services via the Internet, while one can win the bid when offering the highest price (Online auction, 2016). Within an online auction, both parties of the exchange are anonymous, and the number of bidders can be infinite (Berger & Schmitt, 2005; Ariely & Simonson, 2003). In contrast, in the traditional auction, bidders in a physical location compete against other opposing bidders until one party wins the bid (Chen, Chen & Song, 2007). Moreover, most bidders who are physically present at a traditional auction represent themselves in public. The number of participants in traditional auctions is mostly limited to a maximum, depending on the room size (Chen, Chen & Song, 2007). Traditional auctions proceed in an auction house with numerous bidders, sales employees, an auctioneer, and administrative employees. Prior owners of auctioned goods can attend the auction as well. Bidders compete against each other and try to win the highest bid for the product of interest (Van Horn, Gustafsson & Woodford, 2000).

Most auctions require certain preparatory work that can take weeks or even months from start to finish (Bowden, 2008). Every auction starts with the delivery of a good into the auction house, followed by a detailed evaluation of the object in order to detect quality, value, and an estimated price. Accurate estimation of this kind of information is essential to provide possible prospective buyers with accurate and detailed information about the

good (Bowden, 2008). This information is formulated in a “description of the object”, which can oftentimes be found in an auction catalogue. Shortly before any auction, a so-called “preview” takes place where customers can examine the products in real life. The auction begins where various bidders are present physically, via the telephone and sometimes even via the Internet. Due to the large number of possible bidders present, Jacquet-Lagreze and Shakun (1982) describe it as a “multi-participant conflict resolution process”. During auction conduction, it is mostly unknown to personnel and fellow bidders who is interested in which lot (Heath & Luff, 2007). Bidders have several decisions to make during auction: They have to decide whether they bid at all, at what time, how high their maximum willingness to pay is, and when to drop out. These decisions are frequently made spontaneously during the preview or the auction itself and customers might update their value estimation based on other bids (Ariely & Simonson, 2003). After the acceptance of all bids, payment and transfer of goods are arranged via the auction house.

One should consider that according to relevant literature, auctions have advantages, but also disadvantages. On the one hand, the buyer as well as the seller party has the opportunity to obtain the best price for certain goods, compared to common in-store purchases (Dholakia, Basuroy & Soltysinski, 2002). On the other hand, possible consumers might overestimate the value of an auctioned item based on the observation of other bidders’ bidding behavior (Ariely & Simonson, 2003).

Nowadays, online auctions are considered to be a great *success* (Ariely & Simonson, 2003; Gregg & Walczak, 2006). Specifically, 10 million goods for sale on Internet auction websites indicate that general society is familiar, confident and enthusiastic about purchasing at an auction (Gregg & Walczak, 2006). Regarding purely online auctions, statistics show a steady increase in active eBay users since 2010. At the end of 2015, eBay

counted 162 million active user accounts and is within leading companies in its industry (Statista, 2016b).

At the allocate mechanism of procedural exchange between anonymous parties, tremendous turnovers are reached with reduced expenses due to missing physical stores and related costs. Since participants are anonymous, every auction is unique and open for everyone interested. Therewith, a market with numerous participants can rise, which facilitates growth and success (Berger, Schmitt, 2005). The global online auction market has increased exponentially, which is additionally encouraged by novel emerging markets like China, India and Russia (Bowden, 2008, Gregg & Walczak, 2006).

Numerous auction houses exist worldwide, with Sotheby's and Christie's being leading in their field, the latter generating revenue of 528 million Euros in contemporary art auctions in 2014 (see Figure 1) (Statista, 2016a). However, these two mentioned auction houses focus on high-end, rare and luxurious products with an estimated product value of at least 10.000 \$ or higher. As this study investigates auction houses of all kinds, thus also lower price ranges, a consideration of the online auction house eBay is appropriate.

The present study is *relevant* because it analyzes success factors of offline auctions offering lower-priced products by examining predictors that might increase auction houses' successes. This has not been thoroughly elaborated upon in previous research.

Regarding its practical relevance, overproduction and the need to increase reusability of products worldwide, as well as the increase of auction houses success are worth mentioning. People are still regularly purchasing the majority of products new and in-store, while more waste is being produced every day. By promoting the purchase of second hand goods, which can be purchased at auctions, reusability and conscious buying behavior gets more attention. Global warming effects concern literally everyone, which is

why the “green” aspect is moving into the foreground even more. In-depth information about the reasons for specific purchases can be valuable for auction houses since they can create a favorable and supportive shopping environment that facilitates the decision to participate at an auction. This ultimately increases revenue and profit for the auction house and decreases waste production. Outcomes could cause auction houses to improve marketing and auctioning strategies, product portfolios, meeting customers demands responses to customers’ wants and needs, creating a pleasant buying atmosphere.

Concerning the *academic relevance*, it is essential to mention that literature discussing the influence of trust on purchase intention exists (Lin & Lu, 2010; Bennett & Bariel, 2001; Mui, Mohtashemi & Halberstadt, 2002), the influence of perceived value on purchase intention (Chang & Wildt, 1995), and the influence of attitude, subjective norm, and perceived behavioral control on behavioral intentions (Ajzen, 1985). However, there is a large literature gap regarding the on-hand literature that examines all these relevant factors together. Therefore, this study is highly required as it examines all relevant factors regarding specifically the purchase intention at auctions. Detailed in-depth knowledge about the purchase intention at auctions is expected to have a tremendous impact on society as well as businesses, and is being examined in the present study. Frequently, the translation from pure theory to practice is difficult, which is why this paper provides a cornerstone to existing literature in this regard.

It is worth mentioning that there does exist literature about auctions in the broadest sense, but the majority of it centers on auctions online, specifically about eBay (Gregg & Walczak, 2006). Because the environment of online and offline stores is too different from each other, it rarely gives insight into purchase intentions at physical in-store auctions. It is expected that by publishing the present paper, a cornerstone in literature of purchase

intentions as well as in the field of purchase intention at physical auctions will be provided to societies and auction houses worldwide.

The essential *research objective* of the current paper is to explore the influence of relevant factors that might impact a consumer's purchase intention at traditional auctions. Therewith, sales of auction houses could be increased while at the same time customers could increase their chances to make a "winning" deal. Consequentially, the following research question emerges:

"To what extent do a consumers attitude, subjective norm, perceived behavioral control, perceived value, perceived product quality, perceived price, trust, perceived service quality and reputation influence consumers purchase intention at offline auctions in Germany?"

2. THEORETICAL FRAMEWORK

The intention to make a bid is one of the most important characteristics regarding auctions and can be understood as an intention to make a purchase. The Theory of Planned Behavior (TPB) developed by Ajzen (1985) as well as Studies by Chang & Wildt (1995), Lin and Lu (2010), Bennett and Bariel (2001) and Mui, Mohtashemi and Halberstadt (2002) will be used as a basis to explore factors that determine this specific purchase intention at auctions. Moreover, the components of the innovated model “purchase intention at auctions” suggested in this paper will be clarified in more detail in the following. Several hypotheses have been formulated, assuming a significant positive influence of each independent variable on the dependent variable purchase intention. To test this contention, we clarify the relevant terms in the following.

2.1. Purchase Intention at auctions

Since “purchase” means obtaining goods or services in return for payment, while “intention” is the individual drive by people to eventually execute specific actions or behaviors (Ajzen, 1985; Fishbein & Ajzen, 1975), the variable Purchase Intention can perfectly predict the actual realization of a purchase (Cheng & Huang, 2013; De Canniere, De Pelsmacker, Geuens & 2009; Chen, Ching & Tsou, 2009).

Regarding auctions, it is important to distinguish between the concepts of bidding and purchasing. It is stated that there is a large difference between bidding for items online and making a typical purchase, suspecting that there is also a difference between offline bids and general purchases (Ariely & Simonson, 2003). On the one hand, the activity of *bidding* comprises a general interest in the product, the willingness to purchase or possess the product, the evaluation of the willingness to pay for the product, and finally entering the competition in the bidding process and finding one’s position compared to the highest

willingness to pay of other bidders. This means that the purchaser cannot solely make the purchase decision by himself because it depends on competing bidders, the exclamation price, and demand and supply of specific goods (McAfee & McMillan, 1987). On the other hand, the activity of *purchasing* constitutes a general interest in the product, as well as a desire to possess the product. The evaluation of the willingness to pay is somehow skipped because a fixed, nonnegotiable price is already attached to the product. Moreover, there is rarely any competition and one can evaluate the product calm and relaxed with no time pressure by competing interested parties.

It is expected that the factors price and perceived value, amongst others, impact the purchase intention at offline auctions because a study regarding online auctions states that a starting price and value perceptions impact bidding behaviors by customers (Ariely & Simonson, 2003). As there can be a similarity in the outcome, specifically possessing a product at the end, it seems appropriate to apply the theory of planned behavior to the purchase intention at auctions. Purchase Intention is considered to be the dependent variable in the design (Ajzen, 1985).

2.2. *Theory of Planned Behavior*

One of the most widely accepted models used to explain and predict individual's consumer behavior and purchase intentions across a variety of settings is the Theory of Planned Behavior (Hansen, Jensen & Solgaard, 2004; Cheng & Huang, 2013; Ajzen, 2002; Armitage & Connor, 2001; Ouelette & Wood, 1998; Ajzen, 1991) (see Figure 2). Specifically, the theory states that a person's actual behavior is predicted by the intention to execute it, which is considered to be the most proximal predictor of behavior. It is salient that the originally suggested three components attitude, subjective norm and perceived behavioral control also apply to the purchase intention at auctions. Namely, the

intention to make a purchase at an auction is influenced by the favorable or unfavorable attitude one holds towards the activity of purchasing at an auction (Citation Book Persuasive Communication). Moreover, one's perception of what others think about the behavior in question influences the execution of purchasing at an auction, which is the so-called "subjective norm". Finally, the knowledge, skills and resources needed to purchase at an auction, thus the perceived behavioral control, is essential for the execution of the activity.

Because this theory is among the most influential theories regarding predicting and explaining certain behaviors, as it has been applied and validated in previous studies, it seems highly appropriate for the present investigation of purchase Intention at auctions (Ajzen, 1991; Hansen et al., 2004; De Canniere, De Pelsmacker, Geuens, 2009; Ajzen, 2002; Sheppard et al. 1988).

2.2.1. Attitude.

According to Chen, Ching and Tsou (2009), an attitude towards a certain behavior can be defined as an individual's concern about executing a certain action, mostly defined by behavioral beliefs. Put differently, attitude can be defined as an individual's positive or negative view regarding persons, things or events (Fishbein & Ajzen, 1975; Cheng, Huang, 2013). In short, it includes someone's total evaluation of a certain behavior (Pavlou & Fygenson, 2006), for instance a general favorable or unfavorable feeling towards a specific behavior (Hansen, Jensen & Solgaard, 2004). An important issue besides the attitude toward a certain behavior is the attitude towards alternative behaviors (Laroche, Kim & Zhou, 1996). Moreover, it is assumed that stronger attitudes are more difficult to change than weaker attitudes (Ahluwalia 2000). Nurse Rainbolt, Onozaka, & McFadden (2012), argue that a positive attitude towards something can predict positive buying behavior. Because significant literature proofs a relationship between attitude

towards intentions and behaviors, it is expected that a consumer's attitude towards purchasing at auctions will have an impact on actual auction purchases.

Hypothesis 1) A positive attitude towards auctions increases the purchase intention at auctions

2.2.2. Subjective Norm.

Since the theory of planned actions as well as the theory of planned behavior perceive Subjective norm to have an influence on a person's purchase intention, it will be clarified in more detail. Some authors argue that subjective norm can be defined as the influence of society on certain individuals (Fishbein & Ajzen, 1975), closely related to social pressure (Chen, Ching & Tsou, 2009), and refers to a perceived evaluation from relevant others of one's referent group about a specific behavior in question (Fishbein & Ajzen, 1975).

However, in academic literature there is justified criticism regarding the terms' vague and unspecific definition (Darley & Latané, 1970; Krebs, 1970; Krebs & Miller, 1985; Marini, 1984), so we will differentiate between injunctive norms and descriptive norms (Cialdini, Kallgren & Reno, 1991).

Injunctive norm refers to a description of what ought to be done in one's surrounding (Cialdini, Kallgren, & Reno, 1991). It includes the premise of doing something because relevant others *expect you to do* it (Reno, Cialdini & Kallgren, 1993). Moreover, injunctive norm oftentimes represents moral rules that are followed by others (Cialdini, Kallgren, & Reno, 1991). In relation to auctions, it happens that your friend, partner or family member visiting the auction with you expects you to continue bidding until a certain price or for an object, thus influencing your purchase intention.

Descriptive norm refers to a description of what is actually being done in one's surrounding, and can be referred to as the "norm of is" (Cialdini, Kallgren, & Reno, 1991). It includes the premise of doing something because other valued people *are doing* it, and is motivated by giving proof for what is an effective and adaptive action to be

executed. Put differently, it signifies information, behaviors, or opinions about certain goods or services expressed by family, friends, or other unknown people in one's surrounding, specifically in the environment of an auction house (Epstein & Gang, 2006). So people do something because others around them do it. When considering the auction environment, it would mean that someone continues to perform even non-verbal behavior like bidding for a specific product because other people do so. It is expected that the previously mentioned attributes of descriptive norm enhance purchase intention at auctions because Ariely and Simonson (2003) prove that the influence of others can direct people to overestimate the value of a specific good of interest.

Thus, for descriptive norm, influence is coming from actual behavior, while for injunctive norm influence is coming from perceived expectations about what should be done (Cialdini, Kallgren, & Reno, 1991).

Hypothesis 2a) Injunctive norm increases the purchase intention at auctions

Hypothesis 2b) Descriptive norm increases the purchase intention at auctions

2.2.3. Perceived Behavioral Control.

The final determinant from the Theory of Planned Behavior elaborated upon is perceived behavioral control, which can be conceptualized as a person's subjective perception about the easiness or difficulty of executing a certain behavior (Posthuma & Dworkin, 2000; Hansen, Jensen & Solgaard, 2004; Ajzen, 1991). These can include tangible resources like financial liquidity as well as mental or physical capability (Ajzen & Madden, 1986; Cheng & Huang, 2013).

First, liquidity refers to one's ability to trade relevant quantities of products and services relatively quickly, at minimal costs and without evaluating the necessity to negotiate the requested price (Pastor & Stambaugh, 2001). Simply put, if someone is liquid, he is capable to buy certain goods immediately and exchange money for a certain product or service. With respect to auctions, one's liquidity to attend at an auction as well

as the liquidity to make a bid is essential for participation. Second, the *ability to attend*, be it physically or mentally, is a prerequisite condition for purchasing something at a traditional auction. It can be clarified as the possession of required qualifications to execute a certain behavior. Physical ability to attend represents being capable of independently moving to the auction location. Mental ability to attend refers to the cognitive efforts required to logically think about and evaluate goods and its perceived value, while examining an appropriate price.

The mentioned amount of control focuses on the ability to perform the behavior and does not relate to the ultimate outcome after the behavior has been executed (Pavlou & Fygenson, 2006; Ajzen, 2002). According to Terry and O'Leary (1995), it includes first, the individual's appraisal towards having control about performing a specific behavior, and second, an assessment about individual capability to perform that same behavior.

It is expected that perceived behavioral control, representing the financial, mental and physical ability to execute a behavior, influences the purchase intention at auctions because Ajzen and Madden (1986) state that beliefs about resources versus impediments determine the perceived control over the behavior.

Hypothesis 3) Perceived behavioral control positively affects the purchase intention at auctions.

Since the components provided by the theory of planned behavior are not sufficient to explain the entire influences on purchase intention at auctions, additional factors will be elaborated upon in the following to complete the relationship.

2.3. Model for Perceived Value

The bidder's perceived product value is of great importance since it is expected to have a decisive effect on the actual purchase intention. High perceived product value

indicates that the bidder might purchase a high quality product and make a winning deal by gaining value. According to Chang and Wildt's (1994), perceived value constitutes perceived quality, made up of the product attribute information, and perceived price, made up of the objective price and the reference price (see Figure 3).

Perceived product value is “consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given” (Zeithaml, 1988, p.14). More broadly speaking, perceived product value could be seen as a trade-off between quality and price that is essential to auctions (Cravens, Holland, Lamb & Moncrieff, 1988; Monroe, 1990; Sweeney, Sutar, 2001). Exact quality of a product as well as specific price can oftentimes be determined at the auction day only, so the exact perceived product value can often only be assumed until the auction starts and possible product errors can be inspected. As the model by Chang and Wildt (1994) suggests an influence of perceived value on purchase intention, while Ariely and Simonson (2003) state that value indicators impact the willingness to bid at online auctions, it is expected in this study that the perceived value of products at an auction influences the purchase intention at auctions.

Hypothesis 4a) High perceived product value positively affects purchase Intention at auctions

As Ariely and Simonson (2003) suggest value assessments in online auctions being influenced by item specifics of auctioned products, it can be anticipated that the product value perceived is influenced by the perceived quality being a item specific of a product being auctioned.

Regarding the component “perceived quality” itself, it represents the quality of the product at hand. Definitions of the term focus on the total composition of product components that should match expectations of prospective consumers (Reeves & Bednar, 1994). The

product attribute information makes up this perceived quality. In the auction business, this means an excellent assortment of prestigious products in excellent condition without any severe damages. It is expected that the perceived quality of products being auctioned influences the purchase intention at auctions, because a study by Saleem, Ibrahim, Yousuf & Naveed Ahmed (2015) proves that there is a positive relationship between perceived product quality and purchase intention and customer satisfaction.

Hypothesis 4b) High perceived product quality positively affects purchase Intention at auctions

Hypothesis 4c) High perceived product quality positively affects perceived value

Hypothesis 4d) High perceived product quality positively affects the purchase intention at auctions, mediated by high perceived value

Coming to the component “perceived price”, it is considered to be of high relevance since this might inhibit or encourage a consumer’s intention to make a purchase. Specifically, it is the value requested for a certain quantity of goods or services. As the prices in auctions are not fixed but dynamic, it can constitute an attractive opportunity for possible bidders (Chang & Wildt, 1994). In these circumstances, then, consumers get integrated into the price-setting mechanism (Chen, Chen & Song, 2007), and they can “experience the thrill of winning a product, potentially at a bargain” (Wally & Fortin, 2013, p.1410), which is expected to increase purchase intention at auctions. At auctions, valuable goods can be purchased for relatively cheap prices, which is expected to increase general purchase intention. Literature shows that attractive prices increase the desire to purchasing goods at auctions (Heath & Luff, 2007). Therefore, it is expected that price influences the purchase intention because Harlam, Krishna, Lehmann, and Mela (1995) state that purchase intention changes according to a difference in price.

Hypothesis 4e) Low prices positively affect purchase Intention at auctions

Hypothesis 4f) Low prices positively affect perceived value

Hypothesis 4g) Low prices positively affect purchase intention at auctions, mediated by high perceived value.

2.4. Model for Trust

Trust happens to be a relevant factor in regard to purchase intention at auctions because risks might be perceived towards products or the auction house. Moreover, trust is very important in various human interactions (Slovic, 1993) and is considered to be a feeling of safety and confidence towards a person, organization, a brand. It can be generated when someone or something is acting reliable and responsible towards own or others' interests (Delgado-Ballester, 2001). In the auction business, trust can be experienced towards the auction house itself. In case of high trust towards the auction house, one relies on the correctness and fairness of the auction house. In case of trust towards the auctioneer, one can assume that the auctioneer acts in one's best interest and objectively accepts the bid of the highest bidder, and not of a person who seems more friendly (Jøsang & Presti, 2004). Zhou and Zheng (2009) as well as Chiu, Huang and Yen (2010) both state that the concept of trust is a relevant influence factor of consumer's intention to make a purchase.

It is expected that trust enhances the purchase intention at auctions because previous scientific studies, such as the ones by Bhattacharjee (2002), Dash and Saji (2007), Gefen, Karahanna and Straub (2003), Gefen (2000), Gefen and Straub (2003), Salam Iyer, Palvia and Singh (2005), Suh and Han (2003), Sultan, Urban, Shankar and Bart (2002), gave scientific proof that as consumer trust increases, the purchase intention increases as well.

Hypothesis 5a) High trust by customers in the auction house results in higher purchase Intention at auctions

With reference to the influence factors of trust, namely “perceived reputation” and “service quality”, each of them will be explained in further detail. Bennett and Bariel (2001) as well as Mui, Mohtashemi and Halberstadt (2002) explicitly state that *reputation* influences trust. As this component of trust is not sufficient for the present study, a model developed by Lin and Lu (2010) regarding the influence of service quality on trust is relevant to consider. Due to the important reputational aspect of the models by Bennett and Gabriel (2001) and Mui, Mohtashemi and Halberstadt (2002) and the relevant aspect service quality from model by Lin and Lu, this paper suggests a combination of these into one conflated model.

Berger and Schmitt (2005) state that any trust issues can be solved by reputation solutions and will be discussed in the following. *Reputation* can be explained as an aligned perception created by previous activities or behaviors regarding certain norms (Mui, Mohtashemi & Halberstadt, 2002). The perceived reputation is thus a perception regarding persons’ or organizations’ norms of behavior formed by considering prior experiences and observations of past actions (Lui & Issarny, 2004). Hosting qualitatively high products and being fair in the acceptance of bids could characterize an auction house with a great reputation. Auction houses with low reputations would constitute a random acceptance of bids by the auctioneer and hosting inoperative products with damages. Studies indicate that seller credibility influences the amount of bid. This can be translated into sellers with high reputation receive higher bids by customers (Ottaway, Bruneau & Evans, 2003). It is expected that reputation has an influence on trust and thus the purchase intention at

auctions because Walley and Fortin (2003) in their study about online auctions state that the reputation of the seller influences the interest in the auction.

Hypothesis 5b) High reputation of an auction house positively affects purchase Intention at auctions

Hypothesis 5c) High reputation of an auction house positively affects trust

Hypothesis 5d) High reputation of an auction house increases the purchase intention at auctions, which is mediated by high levels of trust.

To appreciate the importance of trust, it is essential to acknowledge the service quality provided by an auction house. One can clarify it as the degree of satisfying customer's requirements regarding everything surrounding a purchase, except for the product being purchased (Deming, 1986; Feigenbaum, 1956; Ishikawa, 1985). Specifically, it is the capability to specify consumer's needs and demands regarding a certain service, and the final satisfaction of these demands by providing excellent performance (Ghobadian, Speller & Jones 1994). Auction houses can make use of high service quality as a means to maintain a competitive advantage among other auction houses (Bowden, 2008). High service quality in an auction business would be the execution of a correct and reliable service, with courtesy and competence by the employee who is dressed appropriately and shows empathy and interest and communicates in an enthusiastic and friendly way. Moreover, auction houses like Sotheby's offer high service quality by providing a shipping and transportation company that arranges the delivery (Bowden, 2008).

It is expected that the service quality in an auction house influences the purchase intention at auctions because the model developed by Lin and Lu (2010) state that service quality influences trust, which ultimately influences purchase intention.

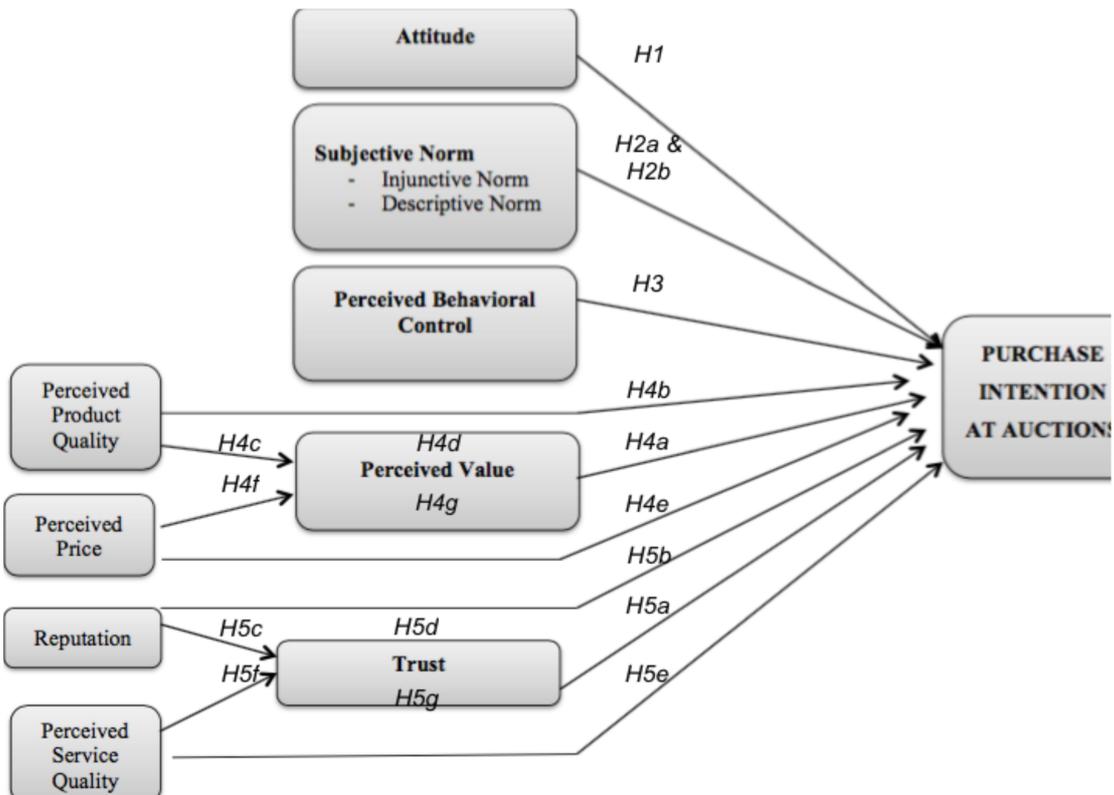
Hypothesis 5e) Proficient Service quality positively affects purchase Intention at auctions

Hypothesis 5f) Proficient service quality positively affects trust

Hypothesis 5g) Proficient Service quality positively affects the purchase intention at auctions, which is mediated by trust.

Model 1.

Predictors for the purchase intention at auctions



3. METHOD

No previous research evaluated upon the influence of attitude, subjective norm, and perceived behavioral control combined with additional relevant predictors on purchase intention at auctions. Therefore, in the present study, the theory of planned behavior has been extended and adjusted to the content of offline auctions. Thus, the present study extends the existing body of knowledge by conducting a survey to measure the issues in question.

3.1. Research Design

In the presented study, the research is designed as a quantitative survey distributed among customers of offline auctions to measure the influence of predictors of the *purchase intention* at these offline auctions. There are several reasons why a survey has been chosen as the most appropriate measurement instrument for this study. First of all, by making use of a survey, the tendency to respond in a socially desirable way is reduced because the survey is anonymous. Second, because a survey is a quantitative research method, information about a larger sample can be consulted (Lewis, Saunders & Thornhill, 2009). A third advantage of a survey is that it can measure the impact of several variables at the same time, meaning that a large amount of information can be retrieved in a relatively short time span (Lewis et al., 2009). Moreover, by using a survey, possible relationships between independent variables and the dependent variable can be measured (Lewis et al., 2009). This corresponds with the goal of the study, indicating the suitability of a survey as a research method.

By this study, it is expected to show which of the mentioned independent variables significantly determine the purchase intention at auctions and if there are any correlations

between any determinants. Within this research design, the independent variables are *attitude, subjective norm, perceived behavioral control, Perceived Value, Perceived Price, Perceived Product Quality, Trust, Reputation* and *Perceived Service quality*. The dependent variable is *purchase intention at auctions*.

3.2. Procedure

There is one very specific group of people being investigated within this research. Therefore, several preconditions for participation had to be met by a respondent. The person who fills in the survey has to be familiar with the procedure of bidding at an auction and he or she must have attended at least one real-life auction in his life before. Prior purchase made at an auction is no precondition because even considerations of doing so are sufficient to answer the questions asked in the survey. To do so, the researcher physically visited 17 auctions in total, from which 12 *agreed* that the researcher could conduct the survey in their auction house. For a detailed overview of all auction houses contacted, please see Table 5. Thus, at 12 auctions, respondents could be contacted personally.

The respondents in question were selected by convenience sampling, and were asked to fill in the printed survey. The majority of them originated from the researchers environment, which is western Germany, specifically North Rhein Westfalia. The researcher attended various offline auctions from different auction houses in a radius of 100km around Düsseldorf. At each auction, the possible respondents were contacted personally and individually in a real-life setting by the researcher exclusively. Since attending at an auction is the only prerequisite, no further respondent selection was made at the location and all attendants were interviewed if they agreed to do so. Chairs and

tables were provided to make the completion of the survey a comfortable and pleasant activity.

By making use of the data collection program Qualtrics, the to-be-distributed survey was created. The process of collecting data took place between March 9, and April 15, 2016. The completion of the survey took approximately seven minutes. The participation was not compensated and voluntary. After finishing the entire data collection process, a statistical analysis was conducted by using the program Statistical package of social Sciences (SPSS), version 20.

3.3. Instrument

The present study included a questionnaire, consisting of three parts. In the first part, an informed consent explains the topic of the questionnaire, emphasizes that participation is voluntary, that the survey was created with best ethical intentions and that all data is dealt with anonymously. Moreover, the informed consent shortly stated the purpose and goal of the study and thanked the respondent in advance for participation.

In the second part, demographics of the respondent were being inquired, specifically gender and age from which for gender one could select between male and female, while for age one could choose between “under 18”, “18-24”, “25-34”, “35-44”, “45-54”, “55-64”, “75-84” and “85 or older”. Age groups have been selected instead of exact age because people might not want to reveal their actual age. Therefore, precision is given up in order to get accurate results. Moreover, respondents were being asked to indicate a general estimation of their income level, while also having the possibility to not comment on this question. It was asked how often the person has ever attended an auction, and if he or she has ever made a purchase at an auction. Both questions had the answer possibilities of “2 to 5 times”, “5 to 10 times” or “more than 10 times”. One can thus

indicate if a person was regularly active at auctions or has been a scarce visitor, which might be relevant for possible manipulations or improvement suggestions at the end.

In the third part, several questions followed in order to measure the relevant constructs that possibly had an influence on the purchase intention at auctions, namely *Attitude*, *perceived behavioral control*, *Subjective Norm*, *Descriptive Norm*, *Injunctive Norm*, *Perceived Value*, *Perceived product quality*, *perceived Price*, *Trust*, *Reputation* and *Perceived Service quality*. Each of the questions was to be answered on a 7-Point Likert Scale ranging from “1= I Strongly Disagree” to “7= I Strongly Agree”. The items for each determinant were derived from a combination of previously existing scales. A detailed explanation of all items can be found in Table 6. All items have been included in a factor analysis with Varimax rotation. Detailed results of the factor analysis including its loading can be found in Table 7. Moreover, the reliability of the different scales was evaluated upon by calculating the Cronbach’s Alpha. As it can range from 0 to 1, it is of relevance to remember that a value of 0.7 or higher indicates a construct as being reliable (Dooley, 2009).

Regarding the determinant *reputation*, six items were used to measure the determinant. The items were based on the RepTrak Model developed by van Riel (2007) and were referring to the four components good feeling, trust, admiration and esteem that consumers feel towards the auction house (Forbes, 2007). Examples are “I value this auction house” and “I feel comfortable in this auction house”. Moreover, two additional statements regarding the evaluation of the auction house’s reputation were added. To reduce effects of response bias, one item was formulated in reverse by using negatively worded items. Namely, this was “the auction house is *not* reputable”. The reliability of this determinant as indicated by Cronbach’s alpha is 0.87.

For perceived *service quality*, seven items from the “Servqual” measurement scale by Parasuraman, Zeithaml, & Berry, 1988 were used and referred to the correctness, courtesy, competence, appeal, empathy, responsiveness and friendliness of the service provided. Examples are “the execution of the auction houses’ service is correct and reliable” and “the service is executed with competence”. The reliability of this determinant indicated by Cronbach’s alpha is 0.92.

Coming to *trust*, items were based on the Organizational Trust Inventory (OTI) by Cummings & Bromiley (1996) as it was related to honesty, reliability, exploitation and vulnerability. Four items were used in total, while they have been adapted to the auction context. Examples are “in my opinion, the auction house is reliable” and “I feel that the auction house negotiates with us honestly”. The reliability of this determinant indicated by Cronbach’s alpha is 0.91.

Two items regarding the construct *Perceived Value* were based on the Perceived value (“Perval”) Scale by Parasuraman, Zeithaml and Berry (1988), namely “I perceive the products offered at this auction house to be of high value” and “I perceive the quality-price relation to be appropriate”. The reliability of this determinant as indicated by Cronbach’s alpha is 0.80.

For the determinant *Perceived Product Quality*, the items were based on the Perval Scale as well, while they were adapted to the auction context. Two items were used to measure this construct, namely “the products being auctioned have an acceptable standard of quality” and “the products being auctioned are of high quality”. The reliability of this determinant indicated by Cronbach’s alpha is 0.86.

The reliability of both determinants together indicated by Cronbach’s alpha is .89.

With reference to the construct *perceived price*, items refer to the inexpensiveness, expensiveness and reasonability of the prices of products being auctioned. Specifically,

they are again based on the Perval Scale and adapted to the auction context, and an example is “the auctioned products are reasonably priced”. It was reverse-scored prior to scale construction. The reliability of this determinant as indicated by Cronbach’s alpha is 0.76.

Three items in total measured the *Attitude* construct. To do so, a scale by Ajzen (2006) was used. Items were adapted to the auction context and an example is “Purchasing an item from this auction is a pleasant activity”. The reliability of this determinant indicated by Cronbach’s alpha is 0.89.

Next, the two constructs *Injunctive norm* and *Descriptive norm* were used to assess the determinant *subjective norm*. Items from the scale of Smith, Terry, Manstead, Louis, Kotterman and Wolfs (2008) are used and adapted to elaborate on both. On the one hand, for *injunctive norm*, five items refer to if “people who are important to” the respondent approve and support purchasing something at an auction, as well as if people who are important to the respondent consider it “a good thing to do”. On the other hand, for *descriptive norm*, two items consider how many of the people who are important to the respondent would purchase something at this auction during the next week, and how many of them actually do purchase something at this auction. For these two items of descriptive Norm, a 7-point Likert scale with the answer possibilities ranging from “1= none” to “7=all” is used. The reliability of the determinant subjective norm indicated by Cronbach’s alpha is 0.88.

Regarding *Perceived Behavioral Control*, items based on the measurement scale proposed by Ajzen (2013) were made use of and adapted to the auction context. An example is “I am confident that I am physically able to attend this auction” and “If I had family obligations that placed unanticipated demands on my time, it would make it more difficult for me to purchase something at this auction”. Six items were used in total. All statements are answered on the 7-point Likert scale ranging from “1 = strongly disagree”

to “7= strongly agree” again, as was the case for previous items. The factor analysis indicated that two items loaded on one factor while the remaining four items loaded on one factor each. Therefore, the variable should be split up into two different variables, namely thus “ability” and “Perceived behavioral control”. The reliability of this determinant when still considered as one indicated by Cronbach’s alpha is 0.78. When considered separately, the reliability of the determinant “ability” and “perceived behavioral control” increased, indicated by Cronbach’s Alpha being .85 for each of them.

Finally, for the determinant *Purchase Intention*, it is referred to items from the measurement scale suggested by Ajzen (2013) by asking if one intends to, tries to and plans to purchase something at this auction within the next year. The reliability of this determinant indicated by Cronbach’s alpha is 0.95.

The survey finalized with a short debriefing text stating the intention and goal of the study, appreciating participation by the respondent and inviting him or her to get in contact with the researcher in case of further questions in regard to the study.

3.4. Respondents

In total, 211 respondents participated in the survey, out of which 191 respondents filled in the questionnaire entirely and consciously, with one unanswered question allowed. The survey sample consisted of 99 male and 90 female attendants, from several auctions located in western Germany. Moreover, as 25.7% answered “no comment” for the specification of their income level, this is not further elaborated upon. The majority of participants belong to the age group “18-24” and “55-64”. Detailed information about the demographics, amongst other things, is shown in table 1.

Table 1
Demographical Data of Participants

<i>Variable</i>	<i>Frequencies</i>	
	Absolute frequencies	Valid Percentage
<i>Age</i>		
under 18	1	0.5
18 – 24	38	20.4
25 – 34	33	17.3
35 – 44	22	11.5
45 – 54	28	14.7
55 – 64	32	16.8
65 – 74	28	14.7
75 – 84	8	4.2
85 or older	0	0
<i>Gender</i>		
Male	99	51.8
Female	90	47.1
<i>Income Level</i>		
Less than 20.000€	50	26.2
20.000€ - 39.999€	29	15.2
40.000€ - 59.999€	29	15.2
More than 60.000€	34	17.8
No comment	49	25.7
<i>Number of times attending</i>		
Once	18	12.2
2 – 5 times	28	19.0
5 – 10 times	34	23.1
More than 10 times	67	45.6
<i>Number of times purchasing</i>		
Never	32	21.9
Once	20	13.7
2 – 5 times	27	18.5
5 – 10 times	27	18.5
More than 10 times	40	27.4

Note: Missing Values are not mentioned

3.5.Data Analysis

Based on the data collected, standard deviations, means and correlations were calculated by the statistical program SPSS. The goal of the Data Analysis is to show which of the

various mentioned determinants have a relevant influence on the purchase intention at auctions and if there are any internal correlations. Specifically, in order to investigate the findings, a hierarchical Regression Analysis is conducted by means of the Program SPSS to test all relevant hypotheses. Because the Independent variables are quantitative, a regression is being conducted, while the hierarchical regression specifically tests if the suggested model including the theory of planned behavior with additional variables is more applicable than only using the theory of planned behavior for examining the purchase intention at auctions. Lastly, a sobel test controls if perceived value and trust act as moderators in this model.

4. RESULTS

Subsequently, the results of the present study are described, including the statistical results of the hierarchical regression analysis and the Sobel test.

4.1. Descriptive and Bivariate Correlation Analysis

As can be seen in Table 1, by making use of missing values analysis, the total number of 211 respondents was preliminarily reduced because 20 participants did not answer all questions. A tolerance of one unanswered question is being accepted though, which makes a frequency of 191 respondents.

One can assume that the variable scales are normally distributed because skewness and kurtosis of all variables now lie within the interval of -1 and 1. Thus, 90.52 % of all responses can be included in the data set.

The bivariate correlation between all measured constructs was analyzed. To do so, all items for each construct were merged into one variable. Thereupon, the relation between the different construct could be measured by the correlation analysis.

Table 2

Means, SDs and bivariate correlations of relevant variables

		M	SD	1	2	3	4	5	6	7	8	9	10	11
1	Attitude	5.48	1.07	1.00										
2	Subjective Norm	4.05	1.11	.31**	1.00									
3	Descriptive Norm	2.99	1.33	.12	.70**	1.00								
4	Injunctive Norm	4.47	1.25	.34**	.95**	.44**	1.00							
5	Perceived Behavioral Control	5.49	.86	.25**	.01	-.08	.05	1.00						
6	Perceived Product Quality	5.56	1.03	.52**	.21**	.13	.21**	.19**	1.00					
7	Perceived Value	5.46	1.09	.56**	.26**	.15	.26**	.19**	.77**	1.00				
8	Perceived Price	4.98	1.15	.49**	.27**	.12	.29**	.09	.54**	.50**	1.00			
9	Reputation	5.28	.98	.62**	.27**	.08	.30**	.22**	.53**	.56**	.48**	1.00		
10	Trust	5.46	1.11	.68**	.26**	.10	.28**	.22**	.60**	.64**	.55**	.71**	1.00	
11	Perceived Service Quality	5.50	.89	.65**	.20**	.06	.22**	.19**	.52**	.57**	.40*	.77**	.71**	1.00
12	Purchase Intention	5.31	1.34	.62**	.29**	1.82*	.28**	.16*	.38*	.48**	.46**	.57**	.64**	.52**

Notes. n=191

*. Correlation is significant at the 0.05 Level (2-tailed).

**. Correlation is significant at the 0.01 Level (2-tailed).

In general, the *attitude* of the sample as a whole was relatively high (M= 5.48, SD = 1.07).

The average subjective norm was 4.05 (SD = 1.11). Participants significantly indicated that the average descriptive norm was low with 2.99 (SD = 1.33), compared to the average injunctive norm with 4.47 (SD = 1.25). Perceived behavioral control was extremely high (M= 5.49, SD = .86). The average perceived product quality was 5.56 (SD=1.03). The average value perceived by respondents was also high with 5.46 (SD=1.09). The sample as a whole indicated the perceived price to be relatively high (M= 4.98, SD = 1.15).

The same is true for reputation (M =5.28, SD= .98). The average trust of respondents was 5.46 (SD = 1.11). The mean sample perceived the service quality to be 5.50 (SD = .89).

Regarding the dependent variable, the sample as a whole had a relatively high purchase intention ($M=5.31$, $SD = 1.34$).

Furthermore, Table 1 provides an overview of the relations between the various predictors. It is salient that most determinants do correlate significantly with each other. Descriptive norm and Injunctive norm show a significantly high correlation with the variable *Subjective norm* with $r=.95$, $n=191$, $p<.01$ and $r=.70$, $n=191$, $p<.01$ respectively. Also striking is the highly significant correlation for perceived service quality and trust with *Reputation*, with $r=.77$, $n=191$, $p<.01$ and $r=.71$, $n=191$, $p<.01$ respectively. Perceived service quality highly correlates with trust, with $r=.71$, $n=191$, $p<.01$. The weakest correlations have been detected between descriptive norm and other determinants.

The dependent variable *Purchase Intention at auctions* highly correlates with all other independent variables, specifically with attitude, subjective norm, injunctive norm, perceived value, perceived price, reputation, trust and perceived service quality at a level of significance of 1%, and with descriptive norm, perceived behavioral control and perceived product quality at a level of significance of 5%.

4.2. Regression Analysis

In a preliminary preceding regression analysis, the influence of demographics on the dependent variable has been looked at. The linear regression analysis with purchase intention at auctions being the dependent variable shows that *significant* results can be retrieved $F(3,189)=11.98$; $p<0.05$. Age had a significant influence on purchase intention at auctions with, $\beta = .21$, $t(181) = 2.66$, $p<.01$. Income level seems to have a significant influence on purchase intentions at auctions with $\beta = .25$, $t(181) = 3.26$, $p<.01$. In contrast to that, Gender does have a significant influence on the dependent variable with $\beta = -.08$, $t(181) = -1.29$, $p>.05$.

4.2.1. Hierarchical Regression analysis.

In order to investigate whether the several independent variables *do* influence the purchase intention at auctions, a hierarchical regression analysis was performed. Specifically, it is expected to proof if the model “*predictors of the purchase intention at auctions*” is a better predictor for the dependent variable than the Theory of planned behavior. In step one, the variables of the theory of planned behavior were tested, namely attitude, subjective norm and perceived behavioral control. In step two, the newly suggested predictors were added to the aforementioned variables and the hierarchical regression. Details of its results can be found in Table 3. The multiple regression analysis with purchase intention at auctions being the dependent variable shows that *significant* results can be retrieved in order to explain purchasing intention at auctions $F(4,153)=9.794$; $p<0.05$, indicating that the developed model has explanatory power.

As can be seen in Table 3, from all variables of the theory of Planned Behavior, only Attitude remains to be a significant predictor of purchase Intention at auctions, $\beta = .43$, $t(181) = 5.63$, $p<0.01$. The proportion of explainable variance is 45%, $R = .45$.

When considering the newly suggested model presented in Figure 6, the following can be observed. Attitude remains a significant predictor of purchase intention, $\beta = .21$, $t(181) = .57$, $p<0.01$. From the added construct, Perceived Product Quality, $\beta = -.36$, $t(181) = -3.26$, $p=.00$, Perceived Value, $\beta = .31$, $t(181) = 2.76$, $p=.01$, Perceived Price, $\beta = .17$, $t(181) = 2.23$, $p=.03$, and Trust, $\beta = .29$, $t(181) = 3.21$, $p=.00$, seem to add predictive value for the purchase Intention at auctions. The results indicate that for all variables with positive beta values, if perceived value, perceived price or trust increase, the purchase intention at auction increases as well. For perceived product quality with the negative beta of $\beta = -.36$, if perceived product quality increases, the purchase intention at auction decreases.

In accordance with this, when the additionally proposed variables are added, the proportion of explainable variance for purchase Intention at auctions increases up to 62% with $R=.62$.

Table 3

Results of the Regression Analysis of Variables used to predict the purchase intention at auctions

	Unstandardized Coefficients			t	Sig.	R Squared
	B	Std. Error	β			
Part 1)						
(Constant)	1.96	.70		2.81	.01	.45
Attitude	.55	.10	.43	5.63	.00**	
Descriptive Norm	.08	.06	.11	1.33	.19	
Injunctive Norm	.02	.06	.03	0.32	.75	
Perceived Behavioral Control	.05	.09	.04	.49	.63	
Part 2)						
(Constant)	1.46	.78		.87	.06	.62
Attitude	.27	.10	.21	.57	.01**	
Descriptive Norm	.08	.05	.11	.59	.12	
Injunctive Norm	-.03	.06	-.04	-.58	.56	
Perceived Behavioral Control	.00	.09	.00	.03	.97	
Perceived Product Quality	-.45	.14	-.36	-3.26	.00**	
Perceived Value	.35	.13	.31	2.76	.01**	
Perceived Price	.15	.07		2.23	.03*	
Reputation	.24	.13	.18	1.80	.07	
Trust	.38	.12	.29	3.21	.00**	
Perceived Service Quality	-.20	.14	-.13	-1.39	.17	

Notes. * $p \leq 0.05$; ** $p \leq 0.01$

Dependent Variable: Purchase Intention

4.3. Sobel Test

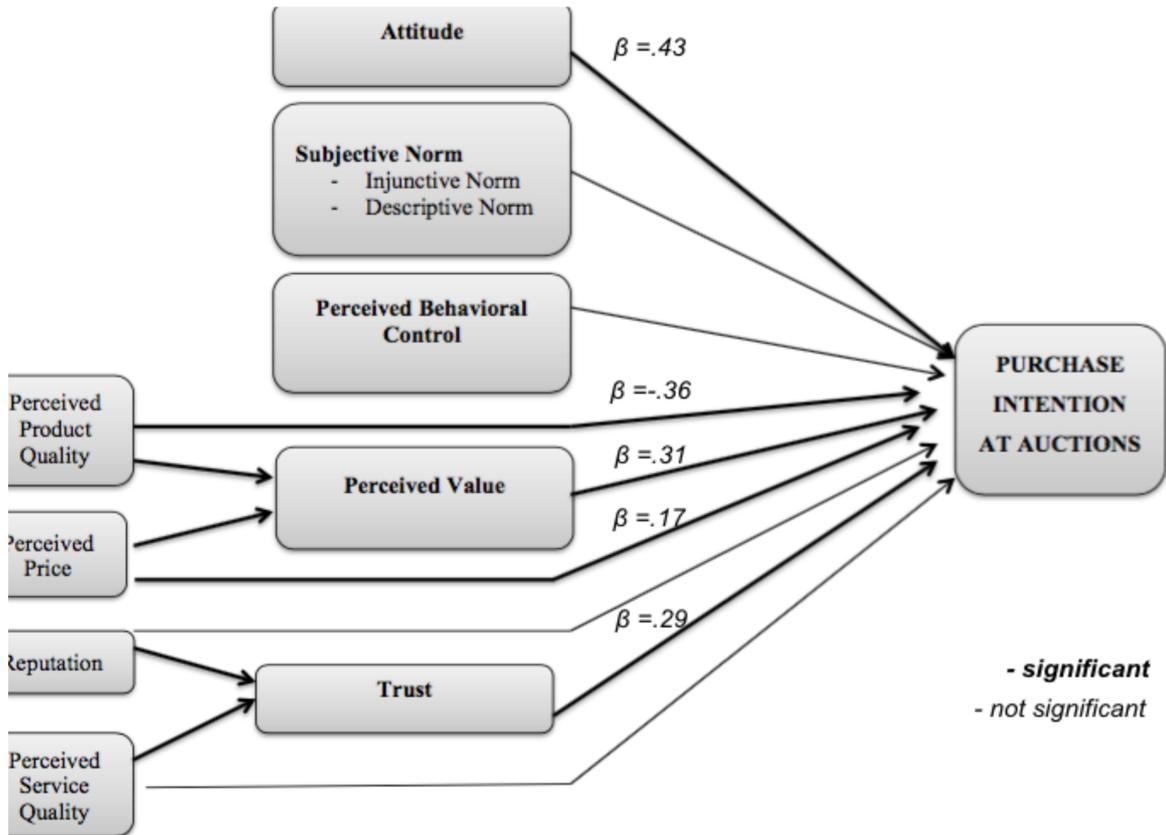
In order to test whether Perceived Value and Trust function as significant mediators for the variables Perceived Product Quality and Perceived Price, as well as Reputation and Perceived Service Quality respectively, the procedure of a Sobel test proposed by Baron

and Kenny (1986) has been applied. Put differently, it measures if Perceived Value and Trust each account for the relation between the determinants and the dependent variable (Baron & Kenny, 1986). In order to test for mediating effects, preceding regressions regarding the independent variable on the mediator, the mediator on the dependent variable, and the independent variable on the dependent variable are required. The results of the regression provide the necessary data standard error s_a and standard error s_b needed for each Sobel test. Please find a detailed overview of each raw unstandardized regression coefficient and standard error needed for each Sobel Test in Table 8.

For Perceived Product Quality, Perceived Value is a significant mediator in relation to Purchase Intention with $p < 0.01$. For Perceived Price and Perceived Value in relation to Purchase Intention, there is moderately significant mediation with $p < 0.05$. For Perceived Service Quality and perceived price each, Trust is a significant mediator in relation to Purchase Intention, with $p < 0.01$.

Model 2.

Results of study regarding the proposed model "Purchase Intention at Auctions"



5. DISCUSSION

The study's objective was to explore the influence of relevant factors that might impact a consumer's purchase intention at a traditional auction. Therefore, the influence of several predictors of the purchase intention at auctions has been assessed by means of a survey, specifically attitude, subjective norm, perceived behavioral control, perceived value, perceived product quality, perceived price, trust, reputation and perceived service quality. The results of the hierarchical regression analysis indicate that someone's attitude, perceived value, perceived product quality, perceived price and a person's trust towards an auction house can predict the purchase intention at auctions. In the following, its academic findings will be discussed and compared to previous research in this field.

5.1. Key Findings

Prior to considering the predictors, the influence of demographics should be taken into account. The study's results indicate that Age as well as Income level have a meaningful influence on the purchase intention at auctions. Specifically, it means that people from older age groups as well as people with higher income have a higher intention to purchase something at an auction. However, no influence could be found in regard to gender. A possible reason is that older people are more experienced and make a decision of visiting an auction consciously with the goal of purchasing something, while younger people might attend due to personal entertainment or curiosity. Moreover, people with a higher income level have more financial power to make a purchase, which can explain their higher intention to do so accordingly. Due to common gender equality in the Western Europe, meaning that males as well as females have the possibilities to purchase something and attend at auctions likewise, no significant influence of a specific gender on the purchase intention at auctions could be observed.

When solely considering the factors of the theory of planned behavior, only *Attitude* has been found to be a significant predictor of purchase Intention at auctions. One can thus derive that people with a positive attitude towards the activity of purchasing at auctions have higher intentions to purchase something at an auction. This finding is in line with the first hypothesis, stating that a positive attitude towards purchasing something at an auction increases the likelihood of an actual purchase made at an auction. Although Wicker (1969) reports weak relationships between attitudes and resulting behavior, the present study is in line with findings by Nurse Rainbolt, Onozaka, & McFadden (2012) and Ajzen and Fishbein (1980), who agree that a positive attitude towards something can predict positive buying behavior, besides other predictors, and with Hansen, Jensen and Solgaard (2004) stating that an attitude towards a specific behavior predicts the intention to execute that behavior. A possible explanation for that is that people are guided by beliefs and attitudes in all kinds of decisions, which lets us assume that this transfers to a high-uncertainty situation like the purchase at an auction.

Surprisingly, subjective norm does not seem to be a significant predictor of purchase intention at auctions. Thus, the perceived influence of what others do or what others expect you to do does not significantly affect the intention to purchase something at an auction. This finding contradicts with the study's hypotheses stating that there is a positive relationship between injunctive norm as well as subjective norm with purchase intention at auctions. This contradicts with Pavlou, Fyngenson (2006) who state that subjective norm influences behavioral intention. This finding can be explained by a person's unconventional, individual motivation to visit an auction. Frequently, a person is motivated by the desire to own something, irrelevant of what other people in one's environment think about it.

Likewise, there is no influence of *perceived behavioral control* on purchase intention at auctions. One can assume that people's subjective beliefs about how difficult it is to attend an auction and purchase something at an auction (Posthuma & Dworkin, 2000; Ajzen & Madden, 1986), independent of time restrictions, does not have a significant effect on people's intention to make a purchase at auctions. The hypothesis stating that perceived behavioral control positively affects the purchase intention at auctions cannot be supported. These findings were not expected and contradict to findings from Ajzen and Madden (1986) who proved that perceived behavioral control is a significant predictor for intentions in general. Reasons for this unexpected outcome can be today's self-evident fact that one can reach every desirable location and can attend every event due to developments of globalization and information technology. Even long-distance traveling as well as phone calls abroad became easily affordable and video interviews possible for laymen. Auction houses frequently provide these services. Hence, people might perceive it as self-evident to be able to attend an auction.

When taking into account the factors in the newly suggested model "Purchase Intention at auctions", the influence of the added variables in this model are discussed in the following. Several significant findings have been found in regard to the newly suggested predictors that clearly support hypotheses concerning the purchase intention at auctions.

Although the degree of significance for attitude being a predictor of purchase intention slightly decreased, it still represents a significant predictor in this relationship, as mentioned previously, while subjective norm and perceived behavioral control still do influence this relationship.

Significant evidence has been found that *perceived value* has a positive influence on the purchase intention at auctions. If people thus detect value in a specific object or

product, their intention to purchase it, specifically at an auction, might increase. The hypothesis clarifying that high perceived product value increases the purchase intention at auction is thus supported. These findings are consistent with previous academic literature suggesting that perceived value is a predictor for purchase intention (Chang & Wildt, 1994). Moreover, Ariely and Simonson (2003) found that value increases the willingness to bid at online auctions. Most likely, this can be justified by the widespread internal goal to strive for wealth and a life in prosperity in a cost-conscious way. High perceived value is mostly internal and is highly related to its perceived price and perceived product quality, as represented in the bivariate correlation analysis. People's perceived value highly differs for people regarding certain objects, and oftentimes is among the main reasons for visiting an auction. Therefore, the perceived value of objects predicts the intention to make a purchase at auctions.

Findings of the present study revealed that *perceived product quality* significantly affect the purchase intention at auctions. Surprisingly though, this effect is negative, meaning that if the perceived product quality rises, the intention to purchase at an auction decreases. People who discern that the quality of a specific product is high thus might have a *lower* intention to purchase something at an auction. This contradicts with the study's hypothesis that a positive relationship between those variables exists. Saleem, Ibrahim, Yousuf & Naveed Ahmed (2015) in their study disagree with that when giving proof of an existing positive relationship between perceived product quality and purchase intention. A possible reason for this might that mainly auctions by pawnshops have been visited by the researcher.

It is assumed that if people perceive the quality to be low, their assumption of making a good deal by purchasing for a low price increases, which possibly leads to an increasing willingness to bid during an auction.

By incidental observation, the researcher observed that attractive prices were leading factors that determined the purchase decision, indicating that people at the visited auctions prefer to accept imperfections in quality as long as the price is low. This observation has not been expected beforehand and is salient for the study.

Coming to perceived price, one can state that the results found in this study confirm its ability to predict purchase intention at auctions. This is in line with the hypothesis that low pricing mechanisms positively affect the purchase intention at auctions. These findings agree with a study by Heath and Luff (2007). Specifically, they state that an attractable price increases the interest to purchase something at auctions, while they contradict to findings from Harlam, Krishna, Lehmann, Mela (1995) who state that price increases result in larger purchase intention than price decreases. Another study contrary to our finding states that consumers might be attracted by higher prices because this, falsely or not, can indicate higher quality (Kenning & Linzmajer, 2011). Because the product of interest, with its quality and its price, is most likely in the focus during the auction visit, it might be true that the price ultimately determines the intention to purchase.

Someone's *Trust* regarding the Auction house has a significant influence on purchase intention at auctions as well. One can expect that people who rely on the correctness and fairness of an auction house more likely intend to purchase something at this auction. The hypothesis that high trust by customers in the auction house results in higher purchase Intention at auctions can be significantly supported. These findings are in line with previous studies by Bhattacharjee (2002), Dash and Saji (2007), Gefen, Karahanna and Straub (2003), Gefen (2000), Gefen and Straub (2003), Salam Iyer, Palvia and Singh (2005), Suh and Han (2003), Sultan, Urban, Shankar and Bart (2002), who state that as trust expressed by consumers increases, the purchase intention increases as well. Zhou and Zheng (2009) as well as Chiu, Huang and Yen (2010) in their studies state that

trust is a significant predictor of consumers' intention to make a purchase. A possible explanation for that might be that trust can mitigate feelings of uncertainty, which people may have in the uncertain buying environment of an auction house. When having trust in a specific auction house, the probability to come back for another auction and possibly purchase something at another auction is expected to increase, leading to increased overall success of the auction house.

Unexpectedly, there is no influence of *reputation* on purchase intention at auctions. This means that the perception regarding the auction houses norms of behavior formed by considering and observing previous activities of the auction house does not have an impact on the actual purchase intention at auctions. This is not in line with the stated hypothesis that high reputation of an auction house results in higher purchase intention at auctions. These findings were surprising as they also disprove findings from Ottaway, Bruneau and Evans from 2003. Specifically, they indicated that there is a positive relationship between seller credibility and bidding activity. Other studies explicitly state that higher reputation sellers experience a higher willingness to purchase for a higher price (McDonald, Slawson (2002) Houser, Wooders (2006) Melnik, Alm (2002)). As the results suggest, for most consumers, value, price and product are dominant factors that predict the intention to visit and purchase at an auction. Thus, the products being auctioned are in the foreground. It seems that the personal evaluation of an auction houses reputation is simply not relevant enough for someone to waive the possession of a valuable product.

An organization's *perceived service quality* has found to not influence the purchase intention at auctions. The degree to which customer's wants and needs are met regarding the surrounding of the purchase does should therefore not represent a significant predictor of purchase intention at auctions. Therefore, the hypothesis explaining that proficient service quality positively affects purchase intention at auctions cannot be supported based

on findings of this study. This has not been expected and disagrees with findings from Taylor and Baker (1994) indicating that service quality is a positive predictor of purchase intention and significantly adds to its explanation. As for reputation, it is likely that low service quality simply does not outweigh the gained profit of possessing a valuable product purchased at an auction. By most consumers, it might be considered to be a side effect, which can be either pleasant or unpleasant, but not an actual predictor for the intention to purchase something.

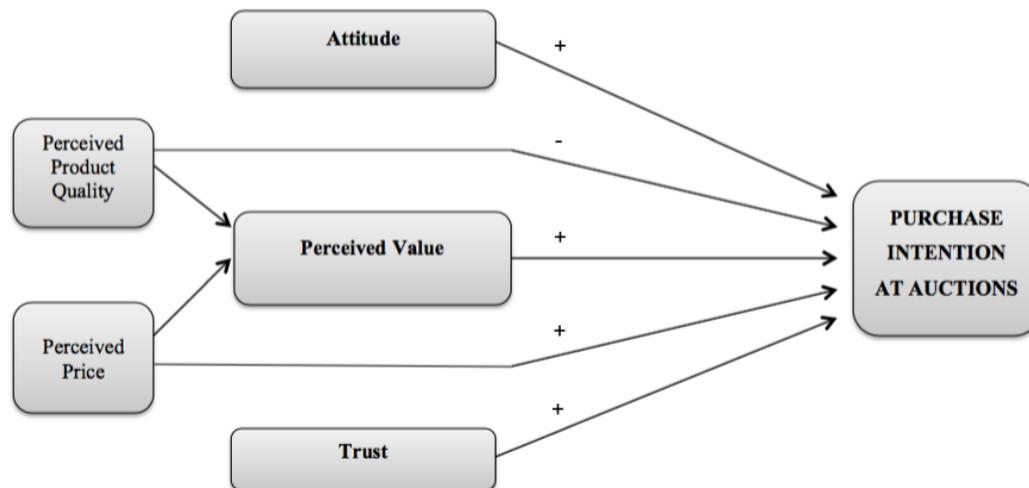
Regarding the role of perceived value and trust as mediators for the variables perceived product quality, perceived price, reputation and perceived service quality, the following can be discussed. The results of the Sobel test indicated that perceived value as well as trust act as mediators for perceived product quality and perceived price as well as reputation and perceived service quality respectively. The effect of people's detected value of an object on Purchase intention at auctions is thus stronger for highly perceived product quality and low perceived price than for low perceived product quality and highly perceived price. The same is true for Trust. The effect of people's trust on purchase intention at auctions is stronger for high reputation and high perceived service quality than for low reputation and low perceived service quality. Results of the bivariate correlation analysis support this finding by stating that service quality and trust highly correlate with reputation, and perceived service quality highly correlates with trust. The study's results are in line with existing literature, specifically the studies by Bennett and Bariel (2001), Mui, Mohtashemi and Halberstadt (2002), Jarvenpaa and Staples (2000) and Lin and Lu (2010), who state that reputation does influence trust and that service quality influences trust, which ultimately influences purchase intention.

Based on that, the *research question* can be answered by stating that attitude, perceived product quality, perceived value, perceived price and trust do have a positive

influence on consumers purchase intention at offline auctions in Germany. What results is a modified version of the initially suggested model.

Model 3.

Modified predictors for the purchase intention at auctions



5.2. Implications

The main aim of this study was to address the almost total lack of research evidence on what potential predictors in its entity possibly influence the purchase intention at offline auctions. Specifically, the combination and totality of predictors labels this research as unique. It has been done so by directly contacting possible buyers at an auction and consulting them about their opinion with the help of an in-depth questionnaire. From the results, interesting theoretical as well as practical implications can be drawn.

5.2.1. Theoretical Implications.

This study verifies an important gain of knowledge in regard to the purchase intention at auctions. Although prior research has been conducted on the topic of auctions, mostly just one single influence factor has been considered, while also a lot of it focused on the online market. The model provided in this study, comprising all relevant and appropriate

predictors, is innovative and realistic, which is considered to be one of the most important theoretical implications. Its results clearly indicate just a significant positive influence of attitude, while all other significant predictors come from the additionally added determinants. This implies that except for the predictor attention, other influence factors did not receive much attention in previous studies.

In addition to that, the fact that the present study explicitly deals with the *purchase intention at auctions* is something that has not been done before several times. Because it is important to distinguish between an intention to do so and the actual purchase activity, specifically in an auction context due to its unpredictability and inability to determine yourself if you want to make the purchase, this study broadens the existing scope of literature in that regard.

Also, a large amount of this literature is outdated and originates even from 1988, for instance Zeithaml's definition of perceived product value (1988), Ajzen and Madden's assumptions regarding the purchase intention at auctions (1986), Cialdini, Kallgren and Reno's study regarding descriptive and injunctive norm (1991) and many more. Therefore, it was essential to re-test the applicability and up-to-datedness of several concepts that have been studied individually beforehand.

Moreover, the theory of planned behavior, which is incorporated but extended in the present study, has been developed around 25 years ago and is therewith slightly outdated. Although it does make some relevant contribution to the concept of behavioral intention, it is very general and cannot be applied to any organizational situation just like that. Therefore, the present study does overcome this critique by providing a content-applied modification of the model.

5.2.2. Practical Implications.

Practical implications for auction houses as well as possible consumers could be drawn, which will be discussed in the following.

The major practical contribution of the current research is that auction houses can consciously make use of the study's findings and therewith increase their overall sales at auctions. Specifically, one should take the following aspects into when doing so.

First, as a positive attitude increases the purchase intention at auctions, auction houses should ensure high attitudes toward the auction house. This could be done by acting in an honest and courteous manner and taking actions that do not necessarily evoke an immediate increase in sales, but rather build on long-term positive attitude building. Therefore, a favorable feeling and a positive evaluation should be ensured (Fishbein & Ajzen, 1975; Cheng, Huang, 2013; Pavlou & Fygenson, 2006; Hansen, Jensen & Solgaard, 2004), for instance by making the purchase at an auction a pleasant and satisfying activity. Moreover, personal experience, educational and religious background, emotions, and external influences are assumed to influence attitude.

Second, the value that consumers perceive regarding the products offered in an auction should be high. Ensuring high product quality can do this. Thus, before an auction house accepts specific deliveries of products for the auction, it is advised to accurately check the products for originality, quality and defects. This ensures high product quality perceived by the consumer and thus high value perceived. An additional possibility to emphasize high product quality is by including it in promotion activities of the auction house already. Possible consumers then get aware of the high product quality and are thus more likely to perceive this as high when being at the auction. Good examples are auction houses like Sotheby's or Christies, who actively accentuate the uniquely high quality of their products (Business Week, 1999b). Another relevant aspect regarding high perceived value is the perceived price. The auction house can ensure attractive perceived prices by emphasizing dynamic prices. This is well realizable in an auction house as they can do so by making the prices very dynamic, namely by attaching an attractive starting bid to an

object which increases interest and hope in the customer to being able to purchase the good.

In order to ensure consumer's trust towards the auction house, several activities should be executed. Being honest to consumers and telling the truth are two ways to create trust. This can also mean admitting something negative like a mistake made by the auction house. In the long term, it is more effective to be honest about negative events than lying about positive ones.

Based on these findings, it is expected that second hand usage can be enhanced, which reduces overproduction and waste production while it promotes conscious consumer behavior and an improved appreciation of the environment.

5.3. Limitations and Future Research

Although the present study does provide relevant contribution to the topic of purchase intention at auctions, certain limitations need to be taken into account when considering the findings since they might have influenced the outcomes. These will be explained in more detail in the following, together with suggestions for future research attempts.

The first and most prevalent of these is that from the 211 distributed surveys, only 191 persons managed to fully complete the entire survey, meaning that 20 respondents had to be excluded. A possible reason is that the survey might have been too long for the people who were under time pressure and were pent-up when visiting an auction. Moreover, for some people German might not have been the mother tongue, so filling it out consciously was a difficult task for these people. For future research, it is suggested to present small financial or non-financial rewards to respondents when completely filling out the survey. Additionally, before the final page starts, one could indicate a sentence

indicating that the survey is nearly finished, for instance “You are almost done!” or something comparable to increase the motivation to finish the survey to its end.

A further limitation of the study is the fact that a quantitative survey has been distributed. Thereby, it was possible to contact a large number of respondents, but represents limitations on the depth of the responses given. For future research, if financial and temporal possibilities are given, it is advised to conduct semi-structured interviews in order to get in-depth insights into what really motivates people to purchase something at auctions.

Third, 19 auction houses has been visited by the researcher in order to conduct the research, from which only 12 auction houses allowed the researcher to distribute the survey. This unwillingness of the auction houses to cooperate with the researcher limited the number of persons contacted. When the researcher asked why it is permitted, the most frequent answer was “We are afraid that this survey will shed negative light on our company and might keep possible customers from purchasing something at this auction”. When repeating the study, one should try to convince more auction houses that this survey does not influence the current purchase attention, but that it instead helps the auction house to figure out how they can increase the purchase intention. This message might not have been clear for all auction houses.

A further limitation which had a relevant impact on sampling is the fact that nearly all auction houses have fixed, scheduled auction dates which mostly take place once in every two or three months. Due to the researcher’s timely restriction for data collection of around five weeks, it was not possible to include respondents from auctions taking place much earlier or much later than in the given time slot for data collection. For future research, spreading data collection over a period of several months is advisable to get a more diversified data set.

The lastly mentioned suggestion for future research is based on the limitation that initial conclusions made in the discussion cannot be made with certainty. For instance, it is stated, “one might expect that people who rely on the correctness and fairness of an auction house are more likely to intend to purchase something at an auction”. As this declaration cannot be made with total certainty, it is suggested to conduct an additional research where this is tested in an experiment for the variables attitude, perceived product quality, perceived value, perceived price and trust, as these are the ones that showed to be significant predictors of purchase intention at auctions.

6. CONCLUSION

Due to the rising issue of societies living in abundance, with problems like overproduction and plenty of products, the auction business presents an attractive possibility to counteract towards this. Regarding auctions in general, the purchase intention by consumers is the dominant and determinant factor responsible for the sales bid and thus the auction houses success.

The present study investigated the influence of several factors on purchase intention at auctions. The results indicated that attitude, perceived value, perceived product quality, perceived price and trust are significant predictors of the purchase intention at auctions. Therefore, it is crucial for any auction business to take that into account and ensure that these named factors are satisfied in a positive way.

6.1. Lessons Learned

- People's attitude is a significant predictor of the purchase intention at auctions
- There is no influence of subjective norm on the purchase intention at auctions
- Perceived behavioral control has no influence on the purchase intention at auctions
- Perceived value, including perceived product quality and perceived price, represent significant predictors of the purchase intention at auctions
- People who have more trust in the auction house have an increased purchase intention at auctions
- Reputation as well as Service Quality do not show any influence on purchase intention at auctions

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8. APPENDICES

8.1. Appendix A

Figure 1.

Overview of leading auction houses in 2014

Leading auction houses worldwide as of July 2014, by contemporary art auction revenue (in million euros)*

This statistic shows the leading auction houses worldwide as of July 2014, by contemporary art auction revenue. Between July 2013 and July 2014, auction house Sotheby's generated 347.82 million euros from contemporary art auctions.

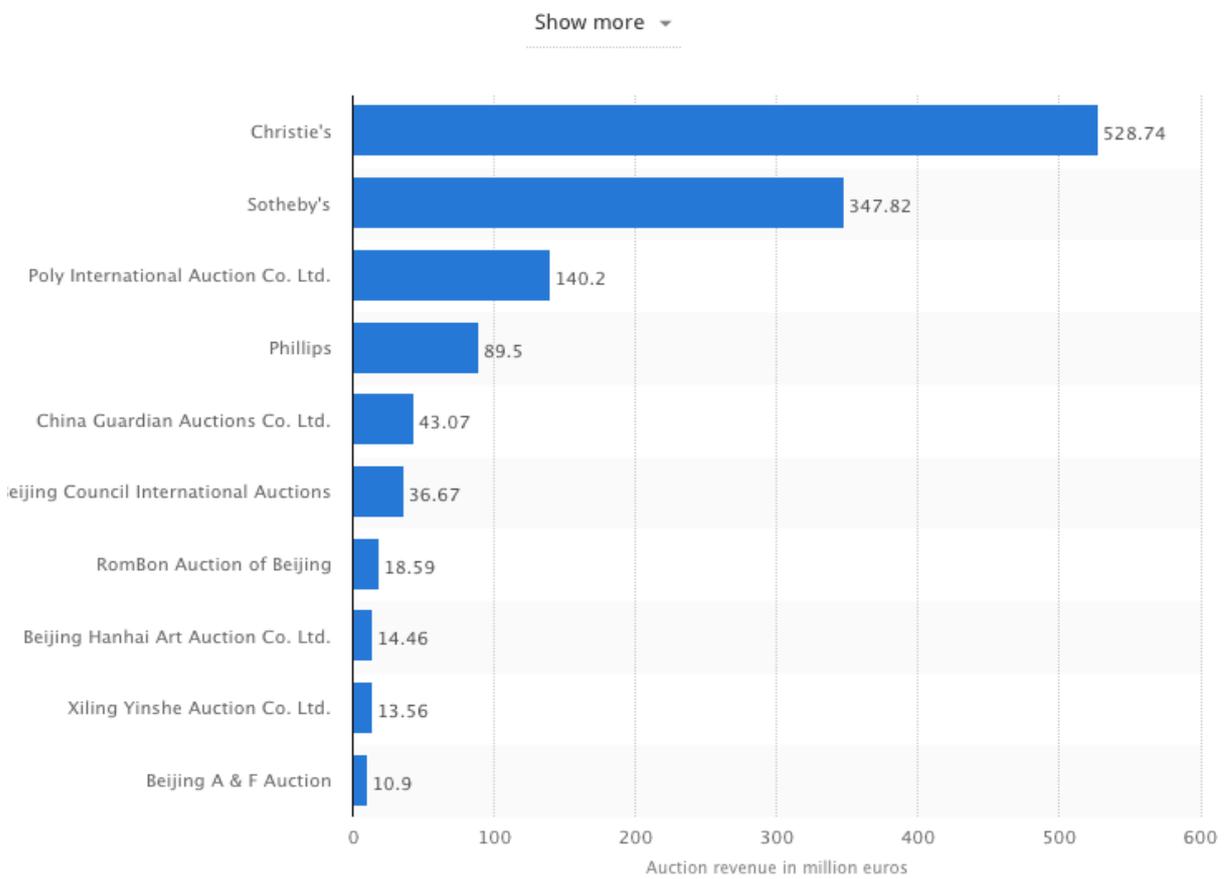


Figure 2.
Theory of Planned Behavior

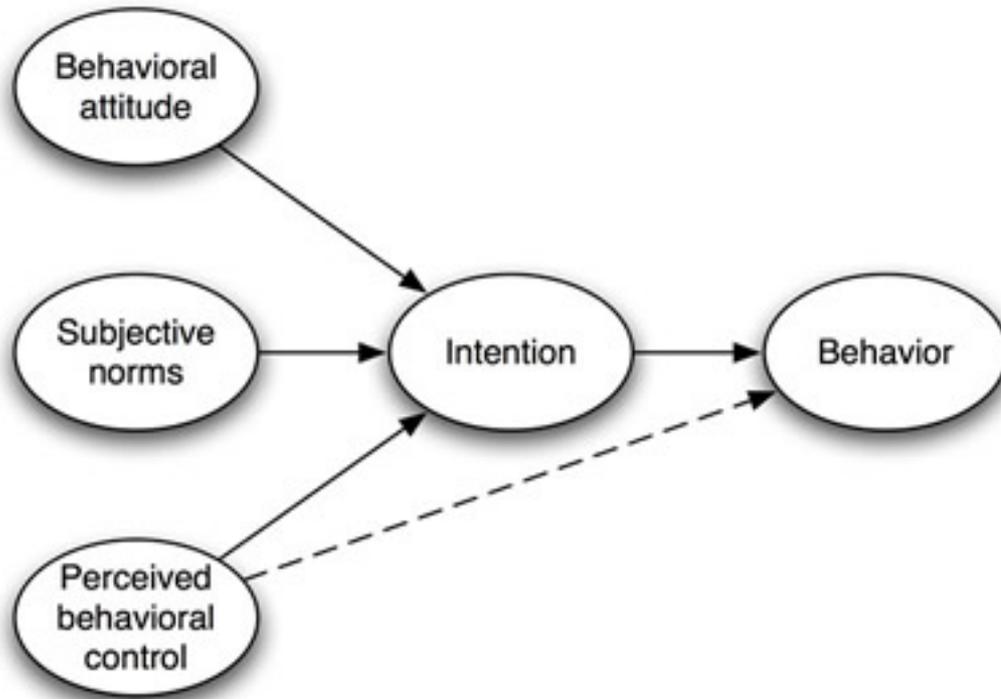
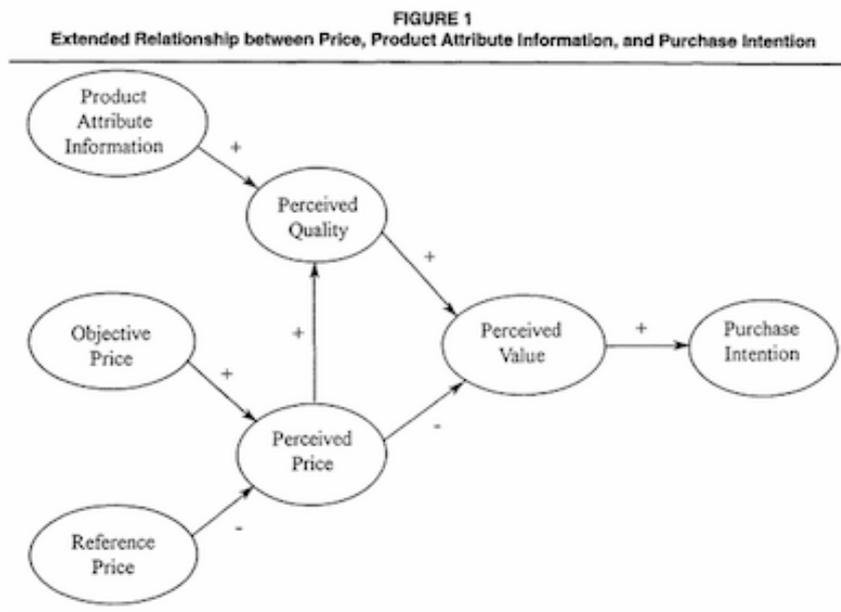


Figure 3.
Influence of Perceived Value, consisting of Perceived Quality and Perceived Price, on Purchase Intention



8.2. Appendix B

Figure 4.

Bitte geben Sie an, in wie fern Sie den folgenden Aussagen zustimmen oder v

Original
Questionnaire
distributed in
German language

	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme eher nicht zu	weder noch	Sti
Ich schätze dieses Auktionshaus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme eher nicht zu	weder noch	Sti
Menschen die mir wichtig sind unterstützen es, Produkte bei Auktionen zu kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Stimr
Die meisten Menschen die mir wichtig sind denken, dass es erstrebenswert ist, etwas bei <i>dieser</i> Auktion zu kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	z
Wenn ich innerhalb der nächsten Woche etwas bei einer Auktion kaufe, werden die Menschen, die mir wichtig sind, dieser Aktivität <i>nicht</i> zustimmen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Unter den Menschen die mir wichtig sind gibt es große Übereinstimmung, dass der Kauf bei Auktionen etwas gutes ist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Es ist sehr wahrscheinlich, dass Menschen die mir wichtig sind ebenfalls etwas bei Auktionen kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme eher nicht zu	weder noch	Sti
Ich bin davon überzeugt, dass ich körperlich dazu in der Lage bin, an einer Auktion teilzunehmen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Ich bin sicher, dass ich dazu fähig bin, bei dieser Auktion etwas zu kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Unvorhergesehene Ereignisse.					

	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme eher nicht zu	weder noch	Stimme zu
Ich beabsichtige, im nächsten Jahr etwas bei einer Auktion zu kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich werde probieren im nächsten Jahr etwas bei einer Auktion zu kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich plane im nächsten Jahr etwas bei einer Auktion zu kaufen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vielen Dank !

Sie haben soeben an einer Studie über die Kaufintention bei Auktionen in Deutschland interessiert. Wir interessieren uns für relevante Motive und Einflüsse, die diese Kaufintention beeinflussen. Ihre Hilfe bei der resultierenden Ergebnissen die Kundenzufriedenheit steigern. Ihre Antworten werden sehr geschätzt.

8.3. Appendix C

Table 4

Overview of all Hypotheses tested

Hypothesis	Analysis	Result
Hypothesis 1) A positive attitude towards the purchase at an auction increases the likelihood of an actual purchase made at an auction.	Hierarchical Regression	Supported
Hypothesis 2a) Injunctive norm increases the purchase intention at auctions	Hierarchical Regression	Not Supported
Hypothesis 2b) Descriptive norm increases the purchase intention at auctions	Hierarchical Regression	Not Supported
Hypothesis 3) Perceived behavioral control positively affects the purchase intention at auctions	Hierarchical Regression	Not Supported
Hypothesis 4a) High perceived product value positively affects purchase Intention at auctions	Hierarchical Regression	Supported
Hypothesis 4b) High perceived product quality positively affects purchase Intention at auctions	Hierarchical Regression	Supported
Hypothesis 4c) High perceived product quality positively affects perceived value	Hierarchical Regression	Supported
Hypothesis 4d) High perceived product quality positively affects the purchase intention at auctions, mediated by high perceived value	Sobel Test	Supported
Hypothesis 4e) Low prices positively affect purchase Intention at auctions	Hierarchical Regression	Supported
Hypothesis 4f) Low prices positively affect perceived value	Hierarchical Regression	Supported
Hypothesis 4g) Low prices positively affect purchase intention at auctions, mediated by high perceived value.	Sobel Test	Supported
Hypothesis 5a) High trust by customers in the auction house results in higher purchase Intention at auctions	Hierarchical Regression	Supported
Hypothesis 5b) High reputation of an auction house positively affects purchase Intention at auctions	Hierarchical Regression	Not supported
Hypothesis 5c) High reputation of an auction house positively affects trust	Hierarchical Regression	
Hypothesis 5d) High reputation of an auction house increases the purchase intention at auctions, which is mediated by high levels of trust.	Sobel Test	Supported
Hypothesis 5e) Proficient Service quality positively affects purchase Intention at auctions	Hierarchical Regression	Not Supported
Hypothesis 5f) Proficient service quality positively affects trust	Hierarchical Regression	
Hypothesis 5g) Proficient Service quality positively affects the purchase intention at auctions, which is mediated by trust.	Sobel Test	Supported

Table 5
Overview of all auction houses contacted

Auction House	Address & Phone Number	Allowed to distribute	Date of auction	Survey Distributed
<i>Leihhaus Grüne</i>	Cologne	Yes	April 1 (7:30am)	Yes
	Düsseldorf	No		
	Essen	Yes	April 5 (8am)	Yes
	Gelsenkirchen	Yes		
<i>Leihhaus Lünen</i>	Duisburg	No	March 12 (11:00am) April 9 (11:00am)	Yes
	Semerteichstraße 60 44141 Dortmund	Yes		
<i>Kunstleihhaus Brocker</i>	Hohenzollernstraße 15 41061 Mönchengladbach	No		
<i>Leihhaus Kemp</i>	Hohe Pforte 22a 50676 Köln	Yes	April 6 (8:00am) April 7 (8:00am)	Yes
	<i>Leihhaus Wandolski</i>	Weberstraße 9 45126 Essen	Yes	April 4 (10:00am)
<i>Deutsche Pfandkredit AG</i>		Hollestraße 1 45127 Essen	No	
<i>Pfandhaus Schuhmachers</i>	Ostwall 140 47798 Krefeld	Yes	April 9 (13:00pm)	Yes
<i>Autoleihhaus Dortmund</i>		No		
<i>Leihhaus Werdier</i>	Hellweg 76 44793 Bochum	Yes	April 14 (13:00pm)	Yes
	<i>Autopfand Bochum</i>	No		
<i>Leihhaus Rheine</i>	Neuenkirchener Straße 56 48431 Rheine	Yes	April 29 (16:00pm)	No (not in time frame)
	<i>Pfandhaus Richard Koch</i>	Bahnhofstraße 12 48143 Münster	Yes	April 9 (10:00am)
<i>Leihhaus Hamm GmbH</i>	Auf dem Daberg 70 59067 Hamm	No		
<i>Leihhaus Buchholz</i>	Elsässer Straße 29 46045 Oberhausen	Yes	March 21 (10:00am)	Yes
<i>Leihhaus Marl</i>	Hülsstraße 17, 45772 Marl	Yes	April 30	No (not in time frame)
<i>Essener Versteigerungshalle</i>	Vogelheimer Straße 80 45329 Essen	Yes	March 8 (6pm)	Yes
<i>Twents Veilinghuis</i>	Weerseloseweg 355 7522PS Enschede	No		

Table 6

Table of all items

<i>Variable</i>	<i>Item</i>	<i>Cronbach's Alpha</i>	<i>Source</i>
Reputation	I value this auction house	.869	RepTrak Model developed by van Riel (2007)
	I admire this auction house		
	I feel comfortable in this auction house		
	I have trust in this auction house		
	This auction house has a good reputation on the market		
	This auction house is not reputable		
Perceived Service Quality	The execution of the auction houses' service is correct and reliable	.916	"Servqual" measurement scale by Parasuraman, Zeithaml, & Berry (1988)
	The service is executed with courtesy		
	The service is executed with competence		
	The appearance of the service provider is appealing		
	The service of the auction house is provided with empathy and interest		
	The service provided is responsive to customers		
	The service personnel is enthusiastic and friendly		
Trust	I think the staff of the auction house tells the truth in negotiations	.912	Organizational Trust Inventory (OTI) by Cummings & Bromiley (1996)
	in my opinion, the auction house is reliable		
	I feel that the auction house negotiates with us honestly		
	I feel that the auction house does not take advantage of its customers		
Perceived Product Quality	I perceive the products offered at the auction house to be of high value	.89	Perval Scale by Parasuraman, Zeithaml and Berry (1988)
	I perceive the quality-price relation to be appropriate		
	The product being auctioned have an acceptable standard of quality		
	The products being auctioned are of high quality		
Perceived Price	The auction house's products are inexpensive	.76	Perval Scale by Parasuraman, Zeithaml and Berry (1988)
	The auctioned products are reasonably priced		

	The auctioned products are expensive		
Attitude		0.89	Ajzen (2006)
	Purchasing an item from this auction is a satisfying experience		
	Purchasing an item from this auction is a pleasant activity		
	Purchasing an item from this auction house feels good		
Subjective Norm		.875	Smith, Terry, Manstead, Louis, Kotterman and Wolfs (2008)
Injunctive	how many of the people who are important to you would purchase something at this auction?		
	how many of the people who are important to you actually do purchase something at this auction?		
descriptive	The people who are important to me approve of purchasing something at this auction		
	Most people who are important to me think that me purchasing something at this auction during the next week would be desirable		
	If I purchase something at an auction during the next week, most people who are important to me would not approve		
	Among the people who are important to me, there would be great agreement that purchasing something at an auction is a good thing to do		
	It is extremely likely that people who are important to me purchase something at this auction		
Perceived Behavioral Control		.784	Ajzen (2013)
	I am confident that I am physically able to attend this auction	.849 for ability when measured seperately	
	I am confident that I am able to purchase something at this auction		
	If I encountered unanticipated events that placed demands on my time, it would make it more difficult for me to purchase something at this auction		
	If I felt ill, tired, or listless, it would make it more difficult for me to to purchase something at this auction		
	If I had family obligations that placed unanticipated demands on my time, it would make it more difficult for me to purchase something at this auction	.847 for PBC when peasured seperately	

If employment placed unanticipated demands on my time, it would make it more difficult for me to purchase something at this auction

<i>Purchase Intention</i>	.948	Ajzen (2013)
I intend to purchase something at this auction in the next year		
I will try to purchase something at this auction in the next year		
I plan to purchase something at this auction in the next year		

<i>Construct</i>	<i>Item</i>	<i>Component</i>				
		1	2	3	4	5
<i>Value</i>	Admire					
	feeling comfortable	.504				
	trust	.525				
	good reputation					
<i>Service</i>	correct and reliable					
	with courtesy					
	with competence					
	appealing					
	with empathy and interest					
	responsive	.777				
	enthusiastic and friendly	.746				
		.575				
	reliable					
	honest negotiations do not take advantage			.523		
<i>Quality</i>	high value			.705		
	quality price relation			.705		
	standard of quality			.803		
	high quality			.808		
<i>Perceived Price</i>	inexpensive			.702		
	reasonable			.507		.521
	expensive					.751
<i>Attitude</i>	satisfying	.551				
	pleasant	.447				
	feels good	.433				

<i>Construct</i>	<i>Item</i>	<i>Component</i>
	agreement	.899
	likely	
<i>Perceived Behavioral Control</i>		
	able to attend	.706
	able to purchase	.606
	unanticipated events	.746
	tired	.817
	family obligations	.866
	employment	.884
<i>Purchase Intention</i>		
	intend	.809
	try	.842
	plan	.824

Table 7.

Results of Regression Analyses necessary to conduct the Sobel Test, with focus on raw unstandardized regression coefficient and standard error

Sobel 1_Regression_ Perceived Product Quality & Product Value					
	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	0,708	0,32		2,209	0,029
Perceived Product Quality	0,863	0,055	0,784	15,787	0

Dependent Variable: Perceived Value

	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	4,117	0,562		7,322	0
Perceived Product Quality	-0,309	0,152	-0,245	-2,027	0,044
Perceived Value	0,584	0,138	0,511	4,218	0

Dependent Variable: Purchase Intention

Sobel 2_Regression_ Perceived price & Product Value

	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	3,957	0,295		13,401	0
Perceived price	0,343	0,056	0,44	6,116	0

Dependent Variable: Perceived value

	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	3,092	0,504		6,133	0
Perceived Price	0,254	0,073	0,286	3,498	0,001
Perceived Value	0,22	0,093	0,193	2,363	0,019

Dependent Variable: Purchase Intention

Sobel 3_Regression_ Reputation & Trust

	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	2,394	0,348		6,887	0
Reputation	0,616	0,062	0,62	9,892	0

Dependent Variable: Trust

	Unstandardized Coefficients			t	Sig.
	B	Std. Error	Beta		
(Constant)	1,605	0,559		2,87	0,005
Reputation	0,224	0,112	0,175	1,997	0,048
Trust	0,487	0,112	0,38	4,33	0

Dependent Variable: Purchase Intention

Sobel 4_Regression_ Perceived Service Quality & Trust

	Unstandardized Coefficients			t	Sig.
	B	Std. Error	Beta		
(Constant)	2,029	0,456		4,45	0
Perceived Service Quality	0,657	0,079	0,553	8,322	0

Dependent Variable: Trust

	Unstandardized Coefficients			t	Sig.
	B	Std. Error	Beta		
(Constant)	2,067	0,651		3,176	0,002
Perceived Service Quality	-0,011	0,127	-0,007	-0,089	0,929
Trust	0,632	0,107	0,493	5,885	0

Dependent Variable: Purchase Intention
