



# THE MEDIATING ROLE OF GENDER IN THE PROCESS OF PURCHASING IN ONLINE BUY-IT-NOW AUCTIONS

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## Introduction

Recently, due to the development of technology innovation electronic commerce is becoming increasingly important to both sellers and buyers. This situation is reflected by a growing number of buyers, both in Poland and worldwide, and an increasing number of Internet sites where purchases are made. The Polish e-commerce market was estimated at USD 11.1 billion at the end of 2017. It is expected to reach the value of USD 13.8 billion at the end of 2018 and USD 17 billion by 2020. With double-digit annual growth, Poland is one of fastest developing e-commerce markets in Europe. By 2020, 70% of all Internet users in Poland will shop online (Export.gov, 2018). Online retailing is practiced through e-shops and auctions. According to Aukcjostat.pl, portal, which presents statistics of Polish auction services, the most powerful auction platform in Poland is Allegro.pl, with the market share of 82% (Aukcjostat.pl, 2015). Buyers deciding to buy online expect more than instant information about the seller and his offer. They also find the content and the form of offer's presentation on the site important. This is the reason why nowadays creating clear and simple websites containing clear and attractively presented information about the seller, the product, the conditions of sale, delivery and payment methods, attractive descriptions of products, and good quality photographs determines the purchase. These elements create seller's credibility and testify his professionalism, which are also determiners of the decision process.

There has been quite a lot of research in the area of online purchasing behaviours in general (Tucker, Massad, 2004, pp. 101–115; Shehryar, 2008, pp. 359–360; Xu et al., 2010, pp. 509–526), and the influence of selected quality signals on purchase intention, like download delay, navigability, security or visual appeal (Wells et al., 2011). Some of them also refer to gender differences in online shopping (Rodgers, Harris, 2003, pp. 322–329; Liu, Huang, 2013, pp. 144–155). Other authors aimed at research regarding general gender differences in online auction buying behaviours (Li et al., 1999; Black, 2005, pp. 50–59; Fallows, 2005; Shehryar, 2008, pp. 359–360). However, there is a lack of research on the influence of quality signals on online auction buying behaviour in terms of gender. Also, previous research focused on the role of customer experience in online auction purchasing behaviours (Borle et al., 2006, pp. 194–205; Livingston, 2010, pp. 237–253; Goes et al., 2012, pp. 1021–2042), however they all analysed the phenomenon on BID auc-

tions not BIN ones. They were also not aimed at exploring gender differences in this area. To the best knowledge of the authors no research exists regarding the influence of that experience on the choice of the type of the auction (ordinary vs. highlighted).

Thus, our work contributes to the existing literature by indicating the role of customer experience in BIN auctions buying behaviours, with particular emphasis on the choice of ordinary or highlighted auction. This research also contributes to the literature by validating the relations between the gender and the customer reaction to different website visual signals, like retailer's reputation, the quality of product photograph, the way auction title is written, product description, cost of an offer as well as herd behaviour. These dependencies have not been previously empirically investigated. Analysing these issues seems to be of key importance for companies' managers. The effectiveness of marketing activities depends on the degree of recognition of their behaviours, needs and ways of satisfying them as well as successful adjustment of the operating strategy to behaviours of customers. The knowledge of consumer behaviour in the online world is the basis of sales policy. The knowledge of the stimuli that create their behaviour in virtual reality allows for more effective influence on the consumer and shaping his behaviour. The knowledge in this area is also a source of inspiration, allowing to verify marketing decisions made by the company.

Our research uses transactions data from the Allegro platform, of the retailer who is a professional seller of pouches for mobile phones. The seller is a full-time online retailer and uses Allegro as the only source of income. Specific data was collected for each buyer, such as the gender of the buyer, the experience as far as auction buying is concerned and the number of products bought. Also, data regarding determiners of customer behaviour in online auctions in terms of gender were collected. This data provides information necessary to achieve the goal of the research. The present study examines gender differences of customer behaviour in online auctions. The aim of the research was to assess whether there is a relation between customer experience and the choice of the type of buy-it-now (BIN) auction with the use of such demographics as gender as well as the relation between gender and the selected characteristics of online auctions, which customers took into consideration when choosing an offer in an

online auction. In this context product description, retailer's credibility, the quality of product picture, the way auction title is written, costs of an offer as well as the herd effect have been analysed. The results of our research suggest that females are less experienced purchasers than males, which may influence marketing and sale strategy used by online sellers. We have also proved that the proportion of female buyers purchasing at ordinary auctions increases with their experience. Our evidence also suggests that males are more inclined to enter the auction site, which is mostly visited by other buyers. It means that they are more often prone to the effect of herd behaviour. Furthermore, it had been proved that gender does not mediate the influence of product description, retailer's credibility, the quality of product picture, the way auction title is written as well as costs of an offer on the purchasing process in online auctions.

## Literature review and research questions development

### BIN option as one of the online auctions' format

The research regarding the structure of Internet auctions indicates that the market consists of BIN (buy-it-now) and BID (bid-in-auction) format, however a substantial proportion of online auctions is completed using the BIN option. BIN format refers to the situation in which an online auction seller sets a price at which he or she will sell the product immediately. That kind of an auction is a hybrid market institution with a fixed-price and a traditional auction at the same time (Li, 2010, pp. 99–106). Past research suggest that the presence of the BIN option may make the auction more attractive to a greater number of buyers. The extensive research results (Tucker, Massad, 2004, pp. 101–115; Shehryar, 2008, pp. 359–360; Xu et al., 2010, pp. 509–526) indicate that the format of online auction is appreciated by buyers for a couple of main reasons:

1. Reduction of risk incurred by them during the process of purchase. The BIN option eliminates the risk of losing opportunities of the purchase for the benefit of other people who offer a higher bidding price and reduces the uncertainty associated with acquiring by the buyer an appropriate level of the purchase price.
2. Reduction of the time needed to obtain / purchase the product as well as reduction of time and costs of monitoring the auction to buyers.

For the abovementioned reasons the Authors have focused their research attention on the BIN option.

### Gender differences in online shopping behaviour

Different demographic attributes are used in different disciplines. Cheche et al. (2019, pp. 55–70) notice that whereas levels of income and gender are more popular with disciplines such as marketing, management studies focus mostly on age, gender, and level of education. Since gender is a characteristic of IT users it seems to be an appropriate factor to consider in the research. To do so first the concept of gender needs to be theorized. Following the concept of Trauth (2013, pp. 277–293) we consider gender in accordance with the gender essentialism. The key principle of that theory is the

assumption of a gender binary and the conflating of sex and gender – males and females. This concept assumes fixed and oppositional nature of males and females and is explained as an attempt to attribute men's and women's behaviour to inherent, group-level, bio-psychological factors.

The review of the research leads to the conclusion that systematic differences may exist between individuals in terms of gender as far as online shopping and related activities are concerned (Liu, Huang, 2013, pp. 144–155). This can result in different behaviours and degrees of willingness to buy products in online auctions. The researches on these buying behaviours are not conclusive, however. On the one hand, some research has shown that males are more likely to shop online than females (Rodgers, Harris, 2003, pp. 322–329). A lot of past studies also show that males look for products in online auctions more often than females (Fallows, 2005; Black, 2005, pp. 50–59; Walley, Fortin, 2005, pp. 1409–1418; Lie et al., 1999; Jaciow, Wolny, 2011). They also make purchases there more often and are more inclined to pay higher prices for similar items (Black, 2007, pp. 93–102; Yeh et al., 2012, pp. 98–115). On the other hand, as indicated by Black (2007, pp. 93–102) in the USA females are more likely to purchase in online auctions than males. The research run by Shehryar'a (2008, pp. 359–360) indicates that compared to males, females are more risk-averse and hence they are more than three times less inclined to BID while shopping in online auctions, even if there is no time pressure (that is time remaining is at least eight days). Therefore, females are more likely to choose BIN auctions.

### Gender differences in customer experience and the choice of type of an online auction

Experience in online buying is one of the factors influencing consumer behaviour in the market of online auctions. It determines buyer's confidence in a particular seller, service, or payment method. Experience gained by customers with a particular purchase activity reduces risk and makes them inclined towards purchase (Jones, Leonard, 2008, pp. 88–95; Basińska et al., 2011, pp. 11–19). The analysis of the literature gives us an assumption that a lot of research has been run regarding customer experience in online auctions, however it regards mainly BID auctions not BIN ones. For example, it has been proved that customer's experience with online buying modifies also the way and time of purchase (Livingston, 2010, pp. 237–253). Research conducted by Borle et al. (2006, pp. 194–205) indicates that experienced buyers bid mainly at the beginning and at the end of an auction. Goes, Karuga and Tripathi (2012, pp. 1021–2042) also indicate that there is a connection between buyers' experience in online auctions and their inclination towards placing bids at the end of an auction. Borle et al. (2006, pp. 194–205), cited earlier, also argues that the greater the buyers' experience, the fewer the number of auctions in which they participate only once. Livingston (2010, pp. 237–253) argues that inexperienced auction participants pay the same price regardless of the seller's reputation, while experienced bidders pay more if the seller has a better reputation and pay less if the seller's reputation is not that good.

According to the research cited above it should be stressed that most of them indicate that women are less likely to use the Web with intention to make purchases than men. The reasons for this may be twofold. On the one hand, it is suggested that women shoppers are more interested in traditional shopping behaviour. On the other hand, this happens because men and women receive and process information differently (Yeh et al., 2012, pp. 98–115). A past study shows that women have significantly lower average trading amounts and lower quantity of purchased products (Black, 2005, pp. 50–59). Also, previous studies on customer behaviour in online auctions indicated that men exhibit a stronger intention to search for information on specific targets before making the decision to purchase a product in order to ensure the accuracy of their decisions (Van Slyke et al., 2002, pp. 82–86). Men are also task oriented, tend to be rational online shoppers (Venkatesh, Morris, 2000, pp. 115–140), plan their purchases in advance as well as do not engage in impulse buying (Lee et al., 2013, pp. 49–70). It all makes them more conscious online auction users. Hence, considering mentioned above evidence the study proposes the following research question:

**RQ1:** Is there a significant difference between male and female as far as customer experience in online BIN auctions is concerned?

Assuming that behaviour of females in online buying differs from males, as it has been indicated above, it is also important to explore how an increase in experience influences the behaviour of each gender group. We will consider an example of buying in highlighted and ordinary online auctions. Highlighted auctions enable a better offer positioning on the listing of searched auctions that is at the top of the list. Experienced customers know that it is worth to analyse more offers before the purchase, not only the ones, which are highlighted as they may be more attractive. Thus, finding whether with an increase in customer experience, the proportion of buyers in ordinary online auctions also increases may be interesting. Therefore, with reference to the abovementioned facts, we stated the following research questions:

**RQ2.1:** Does the proportion of females buying at ordinary auctions increases with an increase in their experience?

**RQ2.2:** Does the proportion of males buying at ordinary auctions increases with their experience?

### Online auction characteristic vs. customer behaviour – general gender differences

Online environment creates special needs for research on the influence of signals on e-customer purchasing behaviour, since retailers are selling similar products, which are often listed simultaneously, and the buyer cannot physically assess the quality of the product. In online auctions, the customer does not have a direct contact with the subject of transaction. He may have a broad knowledge as far as the range or type of product is concerned, however not on the particular subject of transaction. In that case the subject of online transaction is known to the customer only on the basis of information provided by

the seller. To acquire more buyers to enter the auction site retailers may use some visual signals, which in most cases remain under their control and allow them to increase the attractiveness of the site as well as visibility of a listing. The review of the research indicates that most commonly they are divided into two groups: seller's credibility / reputation and offer visibility / attractiveness (Li et al., 2009, pp. 75–92; Bockstedt, Goh, 2012, pp. 235–267; Hou, 2012, pp. 58–64; Suh et al., 2013, pp. 87–108). The later may be increased by the quality of product picture (amateur/professional) (QPP), the way auction title is written (capital letters/small letters) (TW), product description (PD), and the costs of an offer (CO). Also, customers' willingness to enter the online auction site and intention to purchase from a website may be increased by the herd effect (HE).

Although previous studies have documented the role of selected quality signals in online buying decisions, we found no empirical test of the influence of these signals on online BIN auction buying intention with a mediating role of gender (Fig. 1).

**Retailers' reputation.** The most commonly analysed quality signal is seller's reputation and credibility (Ye et al., 2009, pp. 12–19; Bockstedt, Goh, 2012, pp. 235–267). A seller's reputation is defined as a perception of a seller's past actions and future prospects, which describe a seller's overall appeal to consumers. The number and character of customers' opinions about the seller play an important role in building online seller's trust, reputation and credibility. The above research results prove that seller's reputation decreases the perceived risk, stemming from uncertainty and impersonal nature of online transaction. According to Wu, Huang and Fu (2011, pp. 290–302) e-retailer's reputation has a more significant influence on risk perception than product price. It also has a significant influence on seller's performance, volume of sales and buyer's willingness to purchase (Ye et al., 2009, pp. 12–19) as well as the level of prices (Sun, Liu, 2010, pp. 433–444).

Although, a lot of research has focused on the influence of e-seller's reputation on customer buying behaviour in general, to the best knowledge of the authors, there is no research on the influence of that reputation on customer behaviour in terms of gender. In this study, we attempt to validate the relation between seller's reputation and gender. Therefore, our research question is as follows:

**RQ3:** According to the fact that females are more risk averse, are they more inclined to consider seller's reputation when purchasing products in online auctions?

**Offer's visibility / attractiveness.** Shao-Kang et al. (2013, pp. 354–368) indicate, that customers' behaviour in online auctions is also determined by marketing activities of retailers related to visual elements, such as product description, quality of photograph, costs of an offer and the way auction's title is written. The effect of visual content within a retailer's website on consumer behaviour is seldom analysed in the literature. Among the abovementioned product photograph is analysed most often, however there is no research on the influence of product photograph on customer behaviour in terms of gender. The existing research results prove for example that product photograph in an online

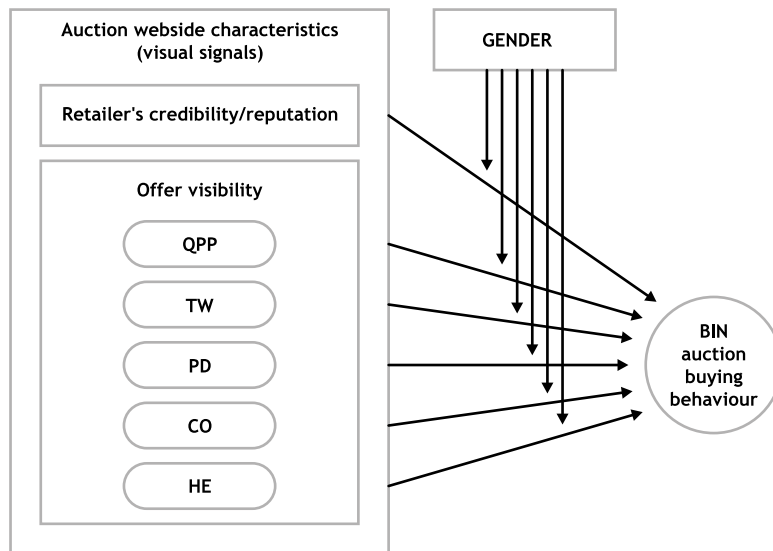


Figure 1. Theoretical model  
Source: own research

auction website is the only place where consumers can access the visual aspects of a product (Lo et al., 2013). Baker et al. (2009, pp. 533–559) found that using photographs to present products can reduce purchase risk perceived by consumers and increase buyer’s perceived message credibility. The fact may be of a high importance in terms of influencing females purchasing behaviours in online auctions. Placing photographs also enhances bidding behaviour of buyers, leads to a higher bidding intention and higher prices (Lo et al., 2013, pp. 354–368). Therefore, in the light of the abovementioned, the following research question can be asked:

**RQ4:** Is there a significant relation between gender and the quality of photographs used in online auction when purchasing products?

As far as the way of writing auction’s title is concerned to the best knowledge of the Authors, there are no papers and research dedicated to this phenomenon. However, the review of auctions sale portals, as well as the results of the brainstorm carried out by the Authors in a group of on-line experts and retailers, allow to state that while writing the title it is worth using small or capital letters – always the opposite to other auctions. Based on this assumption, this study proposes the following research question:

**RQ5:** Is there a significant relation between the gender and the reaction to the way the auction title is written?

Also, there is no research on the influence of product description and costs of sale on customer behaviour in terms of gender. Thus, basing on the results of the brainstorm carried out by the Authors in a group of online experts and retailers regarding the ways product and price may be presented by auction retailers, we ask the following research questions:

**RQ6:** Is there a significant relation between gender and the reaction to the way product is described in an online auction page?

**RQ7:** Is there a significant relation between gender and the reaction to the way the price of an offer is presented?

**Herd behaviour.** Although, there has been little research on the phenomenon of herd effect in online auction, it has been proved that the process of making decisions by customers is determined by other buyers since people often imitate others, rather than making purchase decisions individually. Chen and Wang (2010, pp. 423–428) indicate that herd behaviour is common in situations in which consumers infer product quality from other consumer choices and incorporate that information into their own decision-making. Thus, it refers to social situations in which individuals are strongly influenced by decisions of others (Asch, 1956, pp. 1–70). The research results run by Chen and Wang (2010, pp. 423–428) show that bidders use online herd cues when making decisions in online auctions. An extensive investigation revealed also lack of published studies on gender differences on herd behaviour in online auctions. Considering this existing empirical knowledge as well as the above assumptions, we ask the following question:

**RQ8:** Is there a relation between gender and the reaction to the information about the number of people, who made a purchase in an online auction?

## Research methodology

In order to investigate the hypotheses, a study was conducted using the auctioning of items on the Allegro.pl platform in Poland. A field experiment was chosen as the investigative empirical method. That kind of research has major benefits over laboratory experiment or other research methods. It is because it takes place in a naturally occurring setting, in contrast to the artificiality of a laboratory (Suh et al., 2013, pp. 87–108). It is run in normal conditions, that is participants’ everyday, well-known, and familiar places – their place of residence, education or work. Whether influencing factors are used or not in this type of experiments may not be noticed by the participant at all. Since participants may not even know that the experiment



is being conducted, their unnatural behaviour is eliminated. In a natural experiment it is possible to induce a particular phenomenon and to control determining factors. Repeatability is also very important, i.e. the fact that the phenomenon may be induced many times in order to verify the obtained results of the experiment.

We collected data from one auctioned product – a mobile phone pouch. The reason behind choosing this specific product is the trend related to the popularization of the devices themselves as well as the fact that the GSM accessories market in Poland is developing very dynamically due to the relatively fast life cycle of mobile devices. We have analysed the relation between gender and the selected characteristics of online auction. In order to carry out the experiment we chose 6 features influencing the attractiveness of online auctions measured by the number of hits and the number of products sold. They were identified on the basis of the review of auctions sale portals, as well as the brainstorm carried out by the Authors in a group of online experts and retailers. These included description of the product, retailer's credibility, the quality of product picture, the way auction title is written and the relation of the price to transportation costs. The last feature, which relates to the number of products sold so far – we called herd effect – is not purely a feature of the auction influenced by the retailer. However, the experts suggested that it has a significant influence on customer behaviour. Each of the mentioned methods of increasing attractiveness of the online auction was a separate experiment, i.e. six natural experiments were conducted. Since we offered mobile phone pouches for different phone brands, the experiments were independent of one another. During the experiment no other seller offered exactly the same mobile phone pouches. Each experiment was conducted according to an identical pattern. The products were offered at two Allegro accounts (two different company names, let us call them A and B), at two auctions: ordinary and highlighted ones. Auctions offered by company A had all the features of a good auction, while auctions offered by company B had one different feature than those offered by company A. The way the analysed features of auctions A and B were described is presented below:

1. Product description – at A auctions the offer included an extended description of the product, at B auctions the description included only basic parameters of the product;
2. Seller's credibility – this feature was diversified by the number of buyers' opinions; at A auctions the seller had about 16,000 buyers' opinions, while at B auctions the seller did not have these opinions;
3. The quality of the product's photos – at A auctions professional photos of the product were placed, while at B auctions amateur photos were placed;
4. The way the title of the auction was written – at A auctions the title was written in capital letters, while in B auctions in a standard font;
5. Delivery costs – at A auctions basic costs for the experiment were indicated (product price PLN 14.90 and delivery costs PLN 5, PLN 6.90 or PLN 8.90 depending on the chosen option). At B auctions the basic price was increased to PLN 18.90, but delivery costs were decreased

to PLN 1, PLN 2.90 and PLN 4.90. In both cases the total cost was the same;

6. Herd behaviour – at A auctions this behaviour was not interfered in, while at B auctions this stimulus was used by making first controlled purchases.

As has been mentioned, both A and B offered two auctions each, out of which one was an ordinary auction, and the other was a highlighted auction. Highlighting enabled a better offer positioning on the listing of searched auctions. It is a paid option.

The auctions were held by a professional company specialising in selling at auctions. All auctions started at the same time and lasted 30 days. 300 products were offered on each auction. In total 370 people took part in the experiment, which means they bought the product during the experiment. The sample comprised 63.8% of women and 36.2% of men. The largest group in the sample (38.6%) were people who did not have any experience in making purchases through auctions, 32.7% were experienced ones, and 28.6% comprised customers with middle experience. The total number of transactions made amounted to 421. 88% of all customers participating in the experiment bought only one item of product, 11% bought two items and 1% bought 3 or 4.

For each customer we have identified gender and customer's experience. As far as gender is concerned it was identified by customer's first name. According to his/her experience we have classified them into three groups taking into consideration the number of comments about the buyer. At online auctions it is common to comment on one another after each transaction. The number of comments obtained by the buyer is thus more or less the same as the number of purchases made at online auctions. We have classified buyers into three groups. The first one included experienced customers (those who had more than 50 opinions), the second included middle experienced buyers (those who had between 10 and 50 opinions) and the third one included inexperienced (those who had  $\leq 10$  opinions).

## Research results

To answer the research questions stated above Chi square test was used. Null hypotheses were stated, which indicated lack of relation between analysed factors, for  $\alpha=0.05$ . With the use of statistical tools for data analysis in Excel programme, the value of the Chi square test was calculated and presented in Table 1. In case of the research question regarding the relation between gender and experience in online auctions (RQ1) there is a justification for rejecting the null hypothesis. On the significance level 0,05 the relation between gender and experience is statistically significant (Chi square 6.245; p-value 0.044). In our experiment females were less experienced purchasers than males. In the female group, the vast majority were women without experience (45% compared to 27% of middle experience and 28% of experienced ones). In contrast, in the male group there were 32% of inexperienced customers, 32% of customers with some experience, and the largest percentage – 36% – accounted for experienced customers, as far as purchasing at online auctions was concerned.

Table 1. Estimation results

Research questions	$\chi^2$	p – value
Research question 1	6.245	0.044
Research question 2.1	9.205	0.010
Research question 2.2	0.289	0.865
Research question 3	0.003	0.957
Research question 4	2.397	0.122
Research question 5	0.471	0.493
Research question 6	2.246	0.134
Research question 7	1.044	0.307
Research question 8	5.480	0.019

Source: own research

In the present study the relation between the increase in customer experience and the type of the auction (ordinary vs. highlighted), where both groups of experiment participants (women and men) made purchases, was analysed. We asked the question whether the proportion of females and males buying at ordinary auctions increases with the increase of their experience? (RQ2.1 and RQ2.2). In case of RQ 2.1. research results reveal the existence of the relation between increased experience and the type of the auction females choose (Chi square 9.205; p-value 0,01). In case of inexperienced females, the proportion of buyers purchasing at ordinary auctions accounted for 10%, in case of females with some experience it was 19%, while in case of experienced women it was 26%. In case of males, the RQ 2.2 cannot be answered positively, i.e. there is no relation between increased experience and the choice of the type of auction (Chi square 0.269; p-value 0.865). The proportion of males purchasing at ordinary auctions did not change considerably with the increase of experience and accounted for 16%, 13% and 15% respectively.

As far as the relation between seller’s reputation and gender is concerned (RQ3) there is no justification for rejecting the null hypothesis, indicating lack of relation between the two factors. It means that the relation between seller’s reputation and gender is not statistically significant (Chi square 0.003, p-value 0.957). In our experiment as much as 55% of females and 55% of males purchased at the auction where the seller had no experience. Therefore, no significant differences between females and males were noted. There seem to be two reasons behind this situation. Firstly, in case of products categorized as commodity, a mobile phone pouch being the example, buyers do not take this factor into consideration, because the purchase of the product does not pose any risk. Secondly, the buyers could not take this element into consideration because they did not see the difference between the two auctions. The only difference was a little piece of information indicating the number of seller’s comments.

The following research question (RQ4), regarded the relation between the gender and the quality of photograph used in online auction when purchasing products. The val-

ue of the Chi square test (2.397) indicates that the null hypothesis can be accepted. The p-value 0.122 indicates that the relation between gender and the quality of photograph is not statistically significant. It is true that most females (62%) made their purchases at the auction where amateur photo was placed, and most males (61%) made their purchases at the auction where a professional photo was placed, but these differences are not statistically significant.

**RQ5:** Is there is a significant relation between gender and the reaction to the way the auction title is written. We suppose that females as being less experienced in online auctions will consider the way the title is written more than males.

The answer to the next research question (RQ5), about the significance of the relation between gender and the reaction to the way the auction title is written, is negative. The value of the Chi square test (2,397) indicates that the null hypothesis can be accepted. The p-value 0,493 indicates that the relation between gender and the way the title is written is not statistically significant. This means that there are no significant differences between females’ and males’ behaviour. Nearly as many females (44%) as males (38%) made their purchases at the auction the title of which was written in the standard font. Similarly, 56% of females and 62% of males made their purchases at the auction the title of which was written in capital letters.

In addition to the above results it is worth mentioning that, according to another analysis run by the authors of the paper, seller’s reputation, the quality of photograph as well as the way the title is written influence significantly the number of hits on online auction site (Cyprijański et al., 2015, pp. 1166–1174). However, the present analysis indicates that the role of these signals in the purchasing process in not mediated by gender.

The two next research questions (RQ6 and RQ7) referred to the existence of the relation between gender groups and the reaction to the way product is described on online auction page as well as between gender and the reaction to the way the price of an offer is presented. Since the theoretical values included values lower than 5, in both cases we have used Chi square test with Yates’s correction for continuity. Chi square test in case of RQ6 (2.246) and RQ7 (1.044) indicates that the null hypothesis cannot be rejected. The p-value 0.134 (RQ6) and 0.307 (RQ7) indicate that the relation between gender and product description as well as between gender and product price is not statistically significant. This means that in case of the analysed commodity product, there are no differences in buying behaviours between females and males. Both analysed groups made their purchases at the auction, which included an extended description of the mobile phone pouch (96% and 73% respectively). In both groups most buyers made their purchases at the auction where lower product price and higher delivery costs were offered (65% and 90% respectively).

For participants of the experiment the relation between gender and herd behaviours in online auction has been also analysed (RQ8). Previous research indicates the existence of herd effect behaviours in online auctions among buyers who are more engaged in the purchase process (Chen, Wang,

2010, pp. 423–428). The results of our research presented in this paper shed a new light on the issue of herd effect, which is very seldom analysed in the literature. The value of the Chi square test (5.480) and p-value 0.019 justifies the rejection of the null hypothesis, stating lack of relation between the two analysed indicators. It means that the reaction to the information about the number of people, who made purchase in the online auction, is related to gender. Research results indicate that males are more inclined to follow herd effect than females. Much more males (80%) compared to females (46%) entered the online auction site that was visited by a larger number of people to make a purchase.

## Conclusions

Despite the growing interest in the Internet auction industry, most research is still at the early stage. The results of our study indicate that females are less experienced purchasers than males. We have also proved that the proportion of females purchasing at ordinary auctions increases with their experience. Males are more rational while purchasing in online auctions. Our evidence suggests that males are more inclined to enter the auction site, which is mostly visited by other buyers. It means that they are more prone to the effect of herd behaviour. In this context our research is in line with other presented in the paper. Furthermore, it has been proved that gender does not mediate the influence of product description, retailer's credibility, the quality of product picture, the way auction title is written, costs of an offer on the purchasing process in online auctions.

The analyses presented in this paper expand the state of knowledge about these phenomena, because they are based on the actual behaviour of buyers on the online auction market. Therefore, our research adds some new insights to the existing literature by exposing the role of quality signals in BIN auctions buying behaviours. However, the findings from this research are limited in several ways. One potential limitation of the study is that the results are based on the analysis of one product – a mobile phone pouch. The second limitation is the time frames. We collected data during a 30-day period. Therefore, the sample size is relatively small. In the future we plan to select different product categories to look for potential differences as well as collect data for a longer time.

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## Wpływ płci na podejmowanie decyzji zakupu na aukcjach internetowych typu „kup teraz”

### Streszczenie

Niniejszy artykuł analizuje różnice w zachowaniach klientów na aukcjach internetowych typu „kup teraz”, wynikające z odmienności płci. Celem badań była ocena związku pomiędzy doświadczeniem klienta a wyborem typu aukcji „kup teraz” (wyróżniona a zwykła) z wykorzystaniem zmiennej, jaką jest płeć, jak również ocena związku pomiędzy płcią a wybranymi cechami aukcji online. Do realizacji tych celów posłużono się metodą eksperymentu naturalnego. W badaniu wykorzystano dane dotyczące transakcji z platformy Allegro (najpopularniejszej platform aukcyjnej w Polsce), sprzedawcy detalicznego, który jest profesjonalnym sprzedawcą internetowym wykorzystującym aukcje. Stwierdzono, że istnieje istotny związek pomiędzy płcią a doświadczeniem klienta oraz wyborem typu aukcji. Nasze wyniki pokazują, że mężczyźni są bardziej podatni na efekt owczego pędu. Ponadto wykazaliśmy, że płeć nie różnicuje wpływu opisu produktu, wiarygodności sprzedawcy, jakości zdjęcia produktu, sposobu zapisu tytułu aukcji czy kosztów oferty na decyzje zakupowe na aukcjach internetowych.

### Słowa kluczowe

zachowania zakupowe, płeć, efekt owczego pędu, aukcje internetowe