Measuring the Influence of Involvement and Other Contextual Variables on Interest and Selling Price in Online Auctions

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The purpose of this paper is to propose and develop a conceptual model of the determinants of online auction interest and final selling price. Using an innovative quasi-experiment methodology, data was gathered by observing 431 real online auction site transactions, over the four product categories of DVD movies, Books, Computers and Cars, reflecting high versus low personal involvement. Key findings suggest that seller reputation is important for high involvement goods and impacts on the final selling price, as does the starting price for low involvement goods. In addition, there appears to be a direct correlation between the number of bids and the level of interest in the auction for all product categories examined in this study. Using real-world transactions on a large online auction site, these findings provide some empirical evidence about the influence of selected auction characteristics on the auction’s final outcome. Finally, the study examines the contrasts between traditional in-person auction theory and the rapidly growing online auction market. Managerial implications and directions for future research are also presented.

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MEASURING THE INFLUENCE OF INVOLVEMENT AND OTHER CONTEXTUAL VARIABLES ON INTEREST AND SELLING PRICE IN ONLINE AUCTIONS

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EXTENDED ABSTRACT

Online auctions are increasingly becoming popular forms of commerce exchange, attracting thousands, sometimes millions of bidders. This growth in online auction sites and online transactions has created an opportunity to explore auction participant behavior in an online setting. Thus, this quasi-experiment focuses on the factors influencing overall auction interest and final price, particularly relevant for sellers of goods and site hosts interested in maximizing returns through the online auction medium. Differing from prior online auction studies that have predominately concentrated on one product category, a central part of this research is to identify differences between auctions for high versus low involvement goods. Auctions involving two high involvement products (Cars and Laptops), and two low involvement products (Books and DVDs) were tracked to meet this purpose. Schamel (2004) states that very few studies have used data collected directly from internet auction sites to analyse customer bidding behavior, so in response to this literature gap, this study explores auction behavior in an online setting. Previous online auction experiments have predominately focused on one category of products. Bajari and Hortacsu (2003) examined eBay coin auctions, Walley and Fortin (2005) discussed behavior relating to DVD’s, and Gilkeson and Reynolds (2003) considered auction features relating to sterling flatware, so this study examines four categories of products while comparing high versus low involvement commodities.

According to findings culled from existing literature, a number of key hypotheses are proposed. All hypotheses will be contrasted for low and high involvement products while comparing high versus low involvement commodities. Prior online auction studies that have predominately concentrated on one product category, a central part of this research is to identify differences between auctions for high versus low involvement goods. Auctions involving two high involvement products (Cars and Laptops), and two low involvement products (Books and DVDs) were tracked to meet this purpose. Schamel (2004) states that very few studies have used data collected directly from internet auction sites to analyse customer bidding behavior, so in response to this literature gap, this study explores auction behavior in an online setting. Previous online auction experiments have predominately focused on one category of products. Bajari and Hortacsu (2003) examined eBay coin auctions, Walley and Fortin (2005) discussed behavior relating to DVD’s, and Gilkeson and Reynolds (2003) considered auction features relating to sterling flatware, so this study examines four categories of products while comparing high versus low involvement commodities.

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interest and final price, when compared with a high starting bid.

H2: Auctions with a high number of bids will show higher auction interest and final price than auctions with a low number of bids.

H3: A seller with a high reputation will attract more auction interest and a higher final price than auctions held by sellers with low reputations.

H4: A low reserve price will increase auction interest and final price when compared to a high reserve price (relative to the price of the product), when it is disclosed.

H5: A longer auction of seven days duration will increase auction interest and final price, compared to a shorter one day auction.

METHODOLOGY

Utilising a quasi-experimental design means auction participants were unaware of their participation in the experiment, as data collected is publicly available to bidders and observers. The online auction website for this experiment was selected based on AC Nielsen Net Ratings (2004), which stated the chosen site was ranked first place in the top 10 shopping websites for the country in which it is based. Selection of four product categories suitable for this experimental study was based on existing online auction literature. Consequently, the product categories chosen for this study were cars, computers, books and DVDs. Cars and computers represent high involvement products; whilst books and DVDs are considered low involvement goods. This categorisation was based on the criteria from Zaichkowsky’s (1994) Personal Involvement Inventory (PII) theory.

A total of 431 auctions were monitored and categorised into the four product groups: cars, computers, books and DVDs. The data was collected and processed over a three week period, with a non-specific time for data collection to ensure a significant sample size was achieved. The study variables include seller reputation, auction length, bidding history, starting bidding price, reserve price, security feature - support safe trader, picture, auction information, and auction attraction features. The dependent variables are auction interest and final price. Auction interest is represented by the number of hits, and final price is the final bid value of the auction. Examination of the auction results focuses on two important outcomes: auction interest and final price. It was found that auction variables that impact overall auction interest and final price appear to vary depending on the nature of the product advertised. Bidding history, measured by the number of bids, factored across all four product categories examined as associated with increased interest.

RESULTS

H1 which states a low starting bid will generate higher auction interest and final price, when compared with a high starting bid is supported for low involvement products such as DVD’s and books, positively influencing final price. Hence, the findings of Lucking-Reiley (1999) and Gilkeson and Reynolds (2003) that starting the bidding at a falsely low minimum bid might generate interest, create bidding momentum and consequently send bidding past the reserve, appears to apply only to low involvement products. H2 states that auctions with a high number of bids will attract more auction interest (measured by the number of hits) and obtain a higher final price than auctions with a low number of bids. The findings support this hypothesis with strong effects observed across all four product categories for the dependent measures of auction interest. This finding supports Smith’s (1989) social inertia theory that increased bidding competition will often increase the final sale price and overall interest in the auction.

H3 stated that auctions conducted by a seller with a high reputation will attract more interest and hence a higher final price than auctions held by sellers with low reputations. This was partially supported as it demonstrated an impact on the dependent measure of final price, for high involvement products only. As the level of risk is much lower for items such as books or DVD’s versus cars or computers, a variance between product categories regarding the influence of seller reputation can be normally expected.

H4 states a low reserve price will result in a higher final price and increased auction interest when compared to a high reserve price (relative to the price of the product). The experiment results show, H4 is supported for the dependent measure final price for the high involvement products of computers and cars, which typically involve higher bid levels than DVD’s and books. For the auction interest dependent measure, this hypothesis is not supported.

Finally, H5 states an auction of seven days duration will attract higher prices than a one day auction. This hypothesis was supported for the dependent measure auction interest for the three product categories of books, computers and cars. However, there was no auction duration effect on final price.

CONCLUSION

Practically, this research indicates to online auction hosts and sellers, methods to increase auction interest and maximise final price dependent on the type of product they are attempting to sell. The model provided may act as a guide for which variables are important when orchestrating an online auction. Theoretically, this research provides a link between traditional in-person auction theory and the rapidly growing online auction market and also contributes in blending expansive developed theories underlying traditional in-person auctions, with the emerging and rapidly growing medium of online auctions.

REFERENCES


