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## THE EFFECT OF NEGATIVE BUYER FEEDBACK ON PRICES IN INTERNET AUCTION MARKETS

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#### **Extended Abstract**

The success of the Internet economy depends largely on how parties establish trust in their transactions. Building on the premise that the major role of Internet intermediaries is to ensure efficient and safe transactions between buyers and sellers, this study tested how buyer's feedback scores on sellers accumulated from previous transactions affect the final bidding prices in the electronic auction market.

The feedback system is a trust building mechanism by which the auctioneer tries to alleviate the perceived risk related to a transaction. Those with good feedback files are regarded as trustworthy individuals as they have developed a good reputation (McKnight et al., 1998). People perceive less risk in a transaction with people maintaining a high reputation. A good reputation, like a good brand name, will lead to a less perceived risk. Potential buyers bidding for a product from a seller who lacks previous transaction records or who has received negative feedback would perceive more risk in the transaction. Consequently, their bidding price will be lower as the buyers trade off the risk with price.

H1: Higher negative feedback scores of sellers in the Internet auction market will lead to a lower bidding price on the Internet auction.

When the outcomes associated with the transaction are perceived to be less risky, people are generally less sensitive to the trustworthiness of transactions. When the perceived risk is inherently very low, the function of the trust building mechanism becomes less important. On the other hand, market participants tend to be more sensitive to the trustworthiness when the perceived inherent risk is higher. Similarly, in their study of employees' trust on authority, Brockner et al. (1997) found that employees' trust plays a more important role when they perceived the outcomes related to authorities' decisions to be relatively unfavorable. Therefore, the second hypothesis of our study is derived.

H2: The impact of negative feedback scores on the final bidding prices will be stronger for products perceived to be inherently riskier.

eBay was selected and the auction prices of computer monitors and printers were compared with their respective market prices. A total of 431 relevant observations, 260 printers and 171 monitors, were collected and analyzed. Two different types of regression models, hedonic regression model and price difference model, were used to investigate the effect of negative feedback on the bidding prices. Hedonic regression is a regression analysis that uses all available quality characteristics as independent variables to explain the dependent variable—price, in most cases (Ioannidis and Silver, 1997). An advantage of hedonic regression is that it enables the examination of the effect of each feature on the dependent variable. The rationale of using the

regression method is that trust, measured by negative feedback scores, can be another feature of products that explains the price. Instead of using the auction prices as the dependent variables, the percentage of price differences between market prices and final auction prices were used in the second model. In the second model, the focus is on the effect of negative feedback scores on the auction prices excluding other product features.

The results show that the final auction price is dependent on the number of negative feedback scores. However, the total number of evaluations of sellers does not contribute to trust. Since we expected that buyers would trade off the number of negative feedback scores with the total number of evaluations, we included the percentage of the negative feedback scores in our regression analysis, and found that it is not significant. It suggests that the number of negative feedback scores is a more important indicator of trustworthiness of sellers than the percentage of negative feedback scores. Our results also show that potential buyers are more sensitive to negative feedback scores when they are considering buying less reliable products: the effect of negative feedback scores becomes marginal when buyers are bidding for new products, but becomes significant for used and refurbished products.

The findings from this study are important as we move to more cyberspace-based transactions. First, the result tells us that feedback scores from buyers in the Internet auction market can be, like brand of products, an important factor in determining prices. Second, our results show that the effect of buyers' feedback varies depending on the product's inherent risk. This implies that the trust building mechanisms (feedback system) for different types of products may have to be designed differently. For example, the feedback systems for mass-production goods and customized goods may need to be designed differently to be more effective. Third, the non-linear relationship between the percentage of negative feedback and trust shown in our study also suggests a modification in keeping and managing the current feedback system. It seems that the number of negative feedback scores is more salient information to buyers than the percentage. Intermediaries who are responsible for providing objective and accurate information about sellers to buyers may need to delete some number of negative feedback scores when a seller reaches a certain level (either after a certain period or after a certain number of consecutive positive feedback scores).

#### References

Brockner, J., Siegel, P., Daly, J., Tyler, T. and Martin, C. "When Trust Matters: The Moderating Effect of Outcome Favorability," *Administrative Science Quarterly* (42), 1997, pp. 558-583.

Ioannidis, C., and Silver, M. "Estimating the Worth of Product Characteristics," *Journal of Marketing Research Society* (39:4), October 1997, pp. 559-570.

McKnight, D. H., Cummings, L., and Chervany, N. "Initial Trust Formation in New Organizational Relationships," *Academy of Management Review* (23:3), pp. 473-490.