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Online Auction Buyers' Brain Images When Making Purchasing Decisions Involving Different Types of Rewards

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Online Auction Buyers' Brain Images When Making Purchasing Decisions Involving Different Types of Rewards

TREO Talk Paper

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Abstract

In the past year, online auction sales on sites such as eBay and Yahoo!Auction have increased over 100 percent due to the pandemic, and the growth opportunities for the global online auction market are anticipated to continue until 2028 (Absolute Markets Insights 2020). When online auction buyers have a demand for a product, they usually buy it by going through a process of bidding behaviors to ensure that the final bidding price is commensurable to the product attributes. As indicated in prior studies, most consumers are sensitive to discounts and promotions, such as coupons and rebates (Akar and Nasir 2015; Dominique-Ferreira et al. 2016). More specifically, coupons are distributed in various forms, such as membership coins or points, and free or express delivery services. These different discount mechanisms influencing consumers' purchasing decision-making processes can be generally categorized into two types of rewards: price-related and not price-related. The purpose of the current experimental study is to explore which type of rewards significantly influences online buyers' purchasing intention in the context of bidding.

The participants, who have experience in purchasing products on auction websites, are placed in a simulated online bidding context. Since brain imaging techniques have been validated in many research fields, this study's participants' brain images are also scanned and recorded during the entire experiment to further determine the significant level of neuron activities related to decision-making tasks in certain brain regions (i.e., medial prefrontal cortex, anterior cingulate cortex/nucleus accumbens, and insula). Other brain regions, such as the dorsolateral prefrontal cortex and ventrolateral prefrontal cortex, are also observed to find any significant activation during the experiment (Dimoka 2012; Knutson et al. 2007). Each bidding product (ranging from 8 to 30 USD) gives 1% of the product price as membership coins (price-related) or points (not price-related) to the participants while they view different types of products presented on the screen. The participants have to click on a yes-no button to indicate whether they have the intention to purchase the product. After the experiment, face-to-face interviews are carried out to verify their neural and behavioral responses. This study expects to make contributions to the e-commerce and neuromarketing fields.

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