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Eliciting willingness to pay for quality maize and beans: Evidence from experimental auctions in Tanzania

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Abstract

Using the incentive-compatible Becker-DeGroot-Marschak (BDM) mechanism, we estimate the willingness-to-pay (WTP) for different quality maize and beans grades in Tanzania using data from a household survey and experimental auctions involving 555 participants. Specifically, we estimate consumers’ observable and unobservable quality premiums on the different types of maize and beans. We consider three types of maize and beans quality grades; (1) unsorted and unlabeled; (2) sorted and unlabeled grade; and (3) sorted and labeled. Results indicate that respondents were willing to pay a premium for the sorted and labeled quality grades of maize and beans but asked for a huge discount for the unsorted grade. We also found that the premium associated with the observable quality was much higher than the value of the unobservable quality. In percentage terms, consumers were willing to pay more by 25 % and 14 % for the sorted over the unsorted grades of maize and beans. However, consumers were only WTP to pay more for the unobservable quality by 4 % and 2 % for the labeled grades of maize and beans. These results are pretty robust to different model specifications. The results also indicate that the main factors influencing the WTP for the maize products are asset ownership and geographical location. Respondents from households with more assets expressed a higher WTP for maize products than those with fewer assets. Similarly, the age and education of the respondent and the incidence of food-related sickness influenced the WTP for the different quality bean grades. Furthermore, results from the unconditional quantile regression model show the impact of the individual covariates on the WTP for maize and beans are not the same across the WTP distribution. Generally, respondents in the upper quantile of the WTP distribution expressed a higher WTP for the sorted and labeled grades than those in the lower quantiles. In the same vein, the effects of the other factors, e.g., assets, education, and land ownership, were much larger in the upper quantiles of the distribution than in the lower quantiles.

Keywords: Beans, experimental auctions, maize, Tanzania, willingness to pay

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