Tropentag, September 17-19, 2018, Ghent

"Global food security and food safety:
The role of universities"

Varietal Choice and Adoption of Improved Cassava Varieties under Subjective and Objective Analyses. A Case of Malawi

Muzee L. Kazamwali[1,3], John Ilukor[2], Irene Nakamatte[3], Deogracious Opolot[3]

[1] *Evangelical University in Africa, Department of Rural Economy, Uganda*
[2] *The World Bank, Development Data Group - Survey Unit, Uganda*
[3] *Makerere University, Department of Agribusiness and Natural Resource Economics, Uganda*

Abstract

Most studies on adoption and impact of improved crop technologies in sub-Saharan Africa have relied more on farmer elicitation, crop experts and morphological descriptors for both varietal identification and estimation of the adoption status. However, these methods have been found to be less accurate identifying crop varieties and therefore leading to varietal misclassification. Although the extent of misidentification and misclassification has been established, their implications have not been examined. In this study, we examine the implication of misidentification and misclassification on varietal choice and adoption analyses. Using data from methodological experiment on cassava varietal identification and productivity measurement (CVIP 2015), the study found that factors driving adoption of improved cassava varieties significantly vary when adoption status and varietal choice are estimated through famer reports or DNA fingerprinting. For example, farming experience, gender of the household head, taste of the varieties and access to extension services, though key determinants of adoption of improved varieties under farmer-reports, could not be considered as such under DNA fingerprinting. Instead, household's wealth index and engagement in non-farm activities were identified as key factors affecting adoption of improved cassava varieties. Further, results demonstrated that effects of farmer's level of education on adoption of improved varieties were underestimated by 4 percentage points through farmer reports. Though the same trend is observed under varietal choice, results showed that the taste of different varieties was more determinant in triggering farmers 'choices and preferences towards a specific variety. It is worth mentioning as well that the explanatory power of the different econometric models used in the study, mainly probit and multinomial logit was particularly higher under objective analysis than under self-reporting. These findings therefore suggest that policy implications regarding choice and adoption of cassava varieties in sub-Saharan Africa need to be reconsidered and re-oriented for better promotion of the crop.

Keywords: Adoption, DNA fingerprint, farmer-reports, varietal choice

Contact Address: Muzee L. Kazamwali, Evangelical University in Africa, Department of Rural Economy, Kampala, Uganda, e-mail: kazamwali@gmail.com