Household Market Participation and Farm Productivity in Nigeria: Latest Evidence from the LSMS Surveys

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Abstract

Using Living Standard Management Survey (LSMS) I estimate the impact of smallholder farmers' market participation on farm productivity which was not yet done by others in the context of Nigeria. I use the latest round of LSMS surveys for 2015-2016 and 2018-2019 in creating panel data and found a 67% attrition rate in the succeeding round from the previous round of the survey and I found that the market participation interaction with a number of household characteristics is highly likely to affect such high attrition which would undermine the impact of our estimates. Therefore, our subsequent analyses are based on the unbalanced panel data comprising 9,262 household observations. Two Standard econometric models are employed in the analysis of the unbalanced panel data: Panel fixed effects (FE) and the 2SLS instrumental variable (IV) regression model. The Panel FE model results indicated market participation dummy has an impact on crop revenue, working capital productivity, and labor productivity respectively at 1% and 10% significant levels, with a theoretically unexpected impact on land productivity. To deal with the endogeneity issue, I also employ the 2SLS IV regression model using the percentage of mobile phone access in the community as an IV. The 2SLS IV results showed Nigeria's smallholder farmers' market participation still has a consistent impact on working capital productivity ranging from 1.72% to 2.22% at 5% and 10% levels of significance. Thus, we can conclude that market participation has a limited impact on smallholder farmers' productivity in Nigeria. The results suggest the government needs to tailor its efforts and policies towards factors that limit not only households' market participation but other factors limiting their productivity beyond the influence of their participation in the market.