

Evaluating the Impact of Market Information System on Coffee Producers' Revenues and Profits in Jimma Zone, Ethiopia

by

Guenwoo Lee, Master's Candidate.

Department of International Studies,
The University of Tokyo

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Market information is important in determining production and marketing behavior for farmers, particularly for commodities whose price fluctuation is extreme. However, the majority of smallholder coffee farmers in developing countries have difficulty in accessing market information at the central wholesale markets.

Theoretically, having little market information may affect producers negatively at least by two ways. Firstly, the coffee farmers may suffer from information asymmetry, i.e., farmers, who are uninformed of market coffee prices, may be offered lower prices than fair prices by traders. Secondly, without accurate market information, farmers may overinvest or underinvest in coffee farming, leading to a loss.

To solve this situation, Ethiopia introduced the market information systems (henceforth, MIS) and provided all market actors and market intermediaries with market prices. While the MIS may improve smallholder farmers' welfare in theory, whether a large number of smallholder farmers, especially those who are illiterate, are able to benefit from using the new technologies is not clear.

Therefore, this paper tries to examine the effect of MIS on the smallholder coffee farmers' profits and productivities empirically using the primary data collected from 308 smallholder coffee farmers in Ethiopia.

To examine the characteristics of respondents that relate to the use of MIS, we evaluate marginal probability effects (MPE) of explanatory variables in probit model and odds ratios in logit model with MIS usage as a dependent variable. To estimate the impact of MIS on coffee producers' revenues and profits, we employ the ordinary least squares (OLS) estimator, the two stage least squares (2SLS) estimation, and Heckman's difference-in-difference (DID) method, which is a special version of the estimated the average treatment effect on the treated (ATT).

Through these estimations, we find that firstly distances from each respondent's dwelling to Jimma special zone and the possession of radio have positive and significant impacts. Secondly, the MIS users obtain higher revenues and profits than non-MIS users. We find that this increase in the revenues and profits resulted more due to an increase in the volume of harvest than an increase in the selling prices. Thus, the price information obtained via MIS seems to contribute to improving the investment decision of farmers to adjust to price fluctuations in the market. It is interpreted from our findings that the MIS practically has positive and significant impacts on both smallholder coffee farmers and traders.