

# Advice Networks and Local Diffusion of Technological Innovations

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## Abstract

Finding the influential people in a community is key to diffusion process of technological innovations, as well as other kinds of products. This information is traditionally obtained through costly ethnographic studies which are not necessarily efficient. We explore the use of sociometric information on the flow of advice as a supplement to socioeconomic and demographic variables to determine the influential members of a community, under conditions where conventional methods may fail.

An empirical study of these ideas using data on a community of Costa Rican coffee growers is reported. It turns out that the flow of advice captured by a generalized measure of eigenvector centrality, controlling for age and innovativeness using a logistic regression method, produced a good predictor of the influential members of the community. In terms of the positive predicting value our results suggest that we can double the precision (for this particular data set we got 91.66% vs. 45% obtained by the conventional methods).

**Keywords.** Advice Networks, Influence, Innovation, Human Dynamics, Social Networks, Diffusion, Centrality, Rural Development.