FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

COMMUNICATION, SEARCH, AND MOBILE PHONES: A TELEPHONE DIRECTORY INTERVENTION IN TANZANIA

Background

The expansion of information and communications technology (ICT) throughout the developing world is among the most profound and all-encompassing instances of technological change in modern economic history. In the 15 years since mobile phone towers first arrived to rural areas of low-income countries, researchers and policymakers have recognized the potential for ICT to improve service delivery and increase market participation by agrarian households in poverty.

One particular mechanism that remains poorly understood is the extent to which ICTs create private returns for smallholder households by lowering the costs of both searching for and communicating with agricultural suppliers and buyers. This is a critical knowledge gap. While it is commonly believed that a major impediment to smallholder productivity is the underutilization of key inputs, few practical solutions exist to improve communications between farmers and from farmers to suppliers and traders.

Phones reduce communication costs between linked agents who purchase phones and exchange numbers, but they do not significantly alter the cost of searching for new contacts. Although it is possible to learn new phone numbers by asking around the village or calling a friend, this type of information seeking is limited entirely to one's pre-existing connections. As a consequence, the individual payoffs to mobile telephony, especially in rural areas, may be higher for those who have strong pre-existing networks, higher wealth, greater mobility and better education.

Project Summary

Researchers funded by the Feed the Future Innovation Lab for Assets and Market Access will measure how a paper telephone directory that lists descriptions and contact information for small and medium-sized agricultural enterprises (SMEs) in the surrounding area can increase communication between smallholder households and SMEs in sub-Saharan Africa. Results will be based on randomized, controlled trial with experimental variation based on the number of directories distributed that list an SME and its effect on key firm outcomes such as phone calls received, revenues, number of employees, number of customers, location of activities and prices.

Anticipated Impacts

Although this project is a proof of concept and any evidence will be considered preliminary, the findings of this study will have important implications for our understanding of both the dynamics of smallholder market participation and the growth of agricultural SMEs in an era of rapidly changing information and communication technologies. The preliminary evidence from the research described here will provide important guidance for future research in this area.

PROJECT OVERVIEW

Lead PI
Brian Dillon, University of Washington

Partners
Institute of Rural Development Planning (Tanzania), Tufts University

Timeline
2014-2016

Funding
$124,929

Region
Dodoma, Tanzania

Key Innovation
Printed phone directory to link smallholder farmers to SMEs

Commodity
Various