

# Influence of public and private agents in the use of new knowledge and technology among small-scale producers: The case of the Honduran coffee chain

Frank Hartwich and Ingrid Fromm\*

## Research Issue

- Providers of knowledge and technology can influence the way small-scale coffee producers innovate
- Research question: How do interactions with certain agents, separately and cumulatively, influence the use of improved methods in coffee production and marketing?
- Innovation trajectories in which public and private agents influence the producers' decision to adopt new knowledge and technologies were defined

## Methodology

- Three coffee producing communities in Honduras studied
- Tools of social network analysis applied
- Data on interaction between knowledge and technology providers and relationship with other farmers collected
- Producers were asked about different innovation aspects and level of innovativeness was rated (Table 1)



## Results

Five options were identified in which producers, through the interaction with public and private agents, can acquire new knowledge and technologies:

- innovation through local buyers
- innovation through international buyers and exporters
- innovation through input suppliers
- innovation from government and development cooperation and
- innovation through farmers' initiatives

The private sector is relevant in most options (Fig. 1 & 3), but development agents, particularly the Honduran Coffee Institute (IHCAFE) are dominant when it comes to information exchange. Farmers associations and cooperatives played an important role in the diffusion of information. The influence of an input provider which did substantial advisory work in Las Crucitas (Fig. 2) was significant.

Table 1: Innovation scores among coffee producers in three communities

Community	Ei Pacon	Las Crucitas	San Marcos
	Average among 25 producers	Average among 29 producers	Average among 25 producers
<b>Innovation dimension</b>			
Innovation in agricultural practices (nursery, seedlings, fertilization)	0.621	0.696	0.632
Innovation in shade within the plantation	0.607	0.568	0.576
Introduction of improved pest management practices	0.671	0.568	0.552
Introduction of new coffee varieties	0.571	0.608	0.552
Improvements in post-harvest management	0.657	0.656	0.648
Innovations in the dry processing of coffee	0.579	0.632	0.688
Introduction of quality standards	0.593	0.568	0.704
New certifications – organic, origin, fair trade	0.493	0.552	0.720
<b>Overall</b>	<b>0.599</b>	<b>0.606</b>	<b>0.634</b>

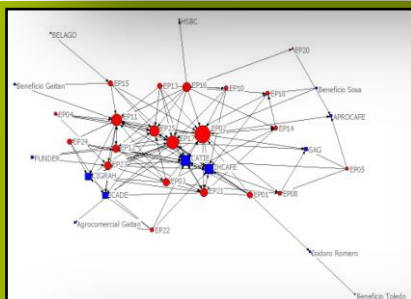


Fig. 1: Producer-Agent Information Exchange Network in El Pacon

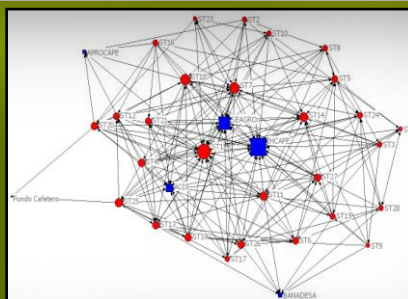


Fig. 2: Producer-Agent Information Exchange Network in Las Crucitas

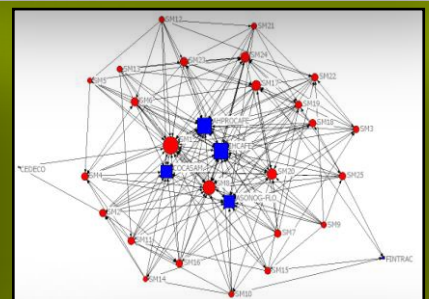


Fig. 3: Producer-Agent Information Exchange Network in San Marcos

## Conclusion

- Significant differences found in the way providers of knowledge and technology influence the farmers' behavior towards innovation
- Private buyers exert influence on certification and quality aspects
- Development agents have greater influence on improved agronomic practices
- Farmers who communicate with the extension branch of input providers tend to be more innovative