Determining the Barriers to Organic Certification: An Explanatory Analysis of Information

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Motivation

Public interest in organic foods has increased the popularity of organic farming over the last 40 years worldwide (OTA, 2011; Wiegel, 2009). Double-digit growth in consumer demand for organically labeled foods reached over $28.6 billion in sales in 2010 in the U.S. (OTA, 2011). Nonetheless, the data shows that organic certification adoption by growers remains low in the U.S. (Greene et al., 2009; USDA-ERS, 2010).

Low adoption rates for organic certification is a response of growers to the structural and institutional barriers of organic agriculture. Since the birth of the organic agriculture movement in the U.S., the lack of information has been reported as a major constraint for farmers adopting organic agriculture (Blobaum, 1983; Fairweather, 1999; Lohr and Salomonsson, 2000; Demiryürek, 2001; Constance and Choi, 2010). With recent concerns related to the lack of information about organic certification, it is important to determine the specific types of information hindering the willingness of farmers to certify.

Objectives

Our objective was to explicitly find what are the types of information, and their determinants, constraining the entry of vegetable farmers to organic certification.

1. We explored the main types of information constraining the adoption of organic certification.

2. We explored farmer characteristics that may influence the perception that information is a barrier to organic production and certification.

Methodology

First, a multivariate probit model was used to analyze how different types of information are perceived as barriers to certification by different types of farmers. Second, a series of five probit models were used to determine what are the factors triggering each type of information as barriers.

We obtained 1559 responses that yielded a response rate of 36.15% from our survey. We classified farmers by their farming practices: strictly conventional, strictly certified organic, and pragmatic (mixed farming practices).

Results

Percentage of Farmers Perceiving Information as a Barrier
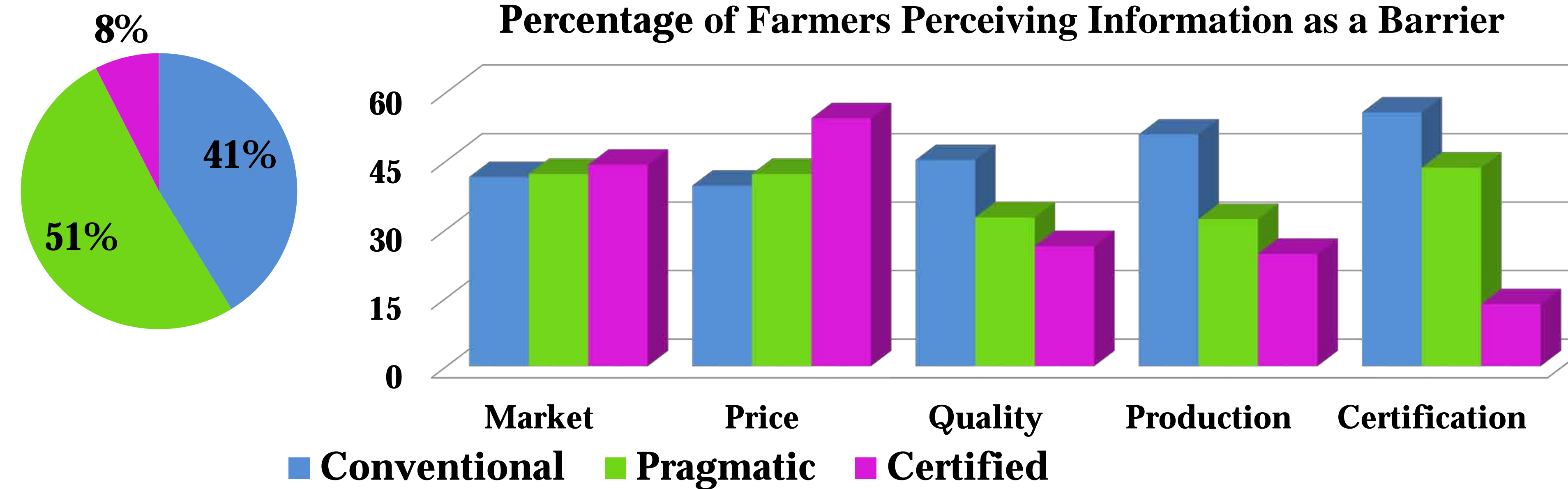
Marginal Effects of the MVP Regression for Likelihood to Categorize Farmers According to their Information Barriers

Variable	Marginal Effect (%)		
	Conventional	Certified	Pragmatic
RELIAMKT[a]	1.23	-2.63*	1.39
PRICEINFO[a]	-9.55**	4.86**	4.69
REQUIREM[a]	11.35***	-1.98	-9.38***
METHODS[a]	18.26***	-1.71	-16.55***
INFOCERT[a]	12.76*	15.89***	3.13
([a]) dy/dx is for discrete change of dummy variable from 0 to 1.			

Marginal Effects of the Probit Regression for Likelihood to Perceive Information as a Barrier to Adopt Organic Certification

Variable	Marginal Effect (%)				
	Markets	Price	Requirements	Production	Certification
EDUCATION	1.33**	0.42	0.73	-1.06*	-0.94**
NOWHITE[a]	4.34	-0.99	2.82	-0.37	2.69
YEARFARM	-0.01	-0.01	0.15	-0.02	-0.02
ONFARM	0.11	-0.02	-0.03	-0.02	0.02
NOMKTEXP[a]	-2.96	-2.63	1.91	1.29	1.20
ORISKY[a]	7.27**	4.69	16.65***	15.44***	14.57***
OCONFUSE[a]	1.71	12.17***	12.19***	19.05***	28.24***
DIVERSIFY[a]	-0.17	5.82*	-1.09	3.79	0.60
ORELIABLE[a]	-16.20***	-5.09*	-8.79***	-10.92***	-9.98***
EXTENSION[a]	-4.10	1.98	8.08**	11.21***	0.84
GROWERS[a]	1.68	4.70	-3.72	1.43	-0.47
DTC[a]	-5.98*	-0.48	-1.99	1.90	5.32*
NUMCROP	0.00	-0.01	-0.38***	-0.69***	-0.30***
NUMMKT	1.18	-0.55	-1.20	-0.20	-1.00
SMALLFARM[a]	5.97*	5.55*	2.50	-6.10*	2.51
([a]) dy/dx is for discrete change of dummy variable from 0 to 1.					

Note: Single, double, and triple asterisks (*,**,***) denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Conclusions

1. While certified farmers consider organic price information as a barrier, it is not a constraint for their conventional counterparts.

2. Production methods and quality and handling information are less likely to be perceived as barriers by conventional farmers than their pragmatic counterparts.

3. The use university extension services as a source of information increases the likelihood to consider to organic production information as a barrier to certify.

4. There is currently a lack of information about certification and the complexity and extensive list of organic requirements can be overwhelming for growers that might be considering conversion.

5. Growers think that organic certification is confusing due to the lack of information, which drives negative perceptions towards certification.

Implications

• Conventional, pragmatic and certified farmers perceive different types of information as barriers to certify.

• Pragmatic farmers are potential candidates to adopt organic certification.

• Philosophical reasons, personal motivations, and farmer's perceptions on organic agriculture are significant drivers to considering adopting or not organic certification.

• Research and extension services might need a re-orientation of agriculture priorities to support the entry to organic certification.

Acknowledgments