Consumer attitudes towards social farm foods

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Abstract

This research aims to investigate to what extent consumers are sensitive to social and health concerns, and if this can be expected to influence the consumer attitudes towards foods produced by social farms. The study area is located in the Friuli Venezia Giulia region, in North East Italy. In order to investigate the consumers' attitudes towards social farm foods, the relationships among three latent constructs, i.e., social consciousness, health consciousness and social farm foods, is analysed. The proposed hypotheses are tested via a structural equation model that is calculated with the linear structural relationship method. A two-stage analysis is adopted, estimating, firstly, the measurement model and, secondly, the structural model. The results support the reliability of the latent constructs on the observed variables and the hypotheses of the proposed model. These results indicate that if consumers are aware of social concerns such as those regarding people with special needs, as well as the fact that the quality of life is also related to the quality of the foods they eat, these consumers could be potential buyers of foods produced by social farms.

Keywords
Consumer attitudes, Social farming, Social farm foods,Structural equation model

Introduction

The relevance of social farming is emerging in many European countries, as well as in other parts of the world (Hassink and van Dijk 2006; Haubenhofer et al. 2010). Social farming refers to those agricultural and other related practises in which people with special needs (people with physical or mental disabilities, former drug addicts, prisoners, elderly people with dementia, minors and immigrants, etc.) are occupied or simply involved in order to promote their well-being (Dessein et al., 2013; Hassink et al., 2012; Hassink et al., 2013). Social farming is gaining increasing attention because it can generate several socioeconomic benefits for all sectors involved. It represents a new chance to diversify rural activities, to enhance the role of renewed agriculture in society, and to strengthen the economic and social viability of farms and rural communities as a whole (Pascale 2010; Senni 2007; Vik and Farstad 2009). As regards farms, the ethical quality of social farm foods (SFFs) may represent a way to innovate, to improve competitiveness and to generate new opportunities

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for farmers to stay in business, in terms of additional income and jobs. At the same time, social farming can provide various services to local communities by welcoming people onto farms (Carbone et al. 2009; Hine et al. 2008a, 2008b).
Although social farming is seen as a successful and innovative sector, social farms face various challenges, among which the need to find adequate funding (Hassink et al. 2013). Analysing social co-operatives in Italy, Fazzi (2011) pointed out their central role in the production of healthcare services outsourced and financed by local healthcare boards, but also underlined the need to reduce the risks of dependence on public funding. Besides the public market segment, new opportunities for social farms could be generated by the private demand for social services, e.g., clients or client representatives who contract a care farm directly bypassing the care institutions (Hassink et al. 2013). Moreover, alongside the provision of social services, the possibility of marketing their produce is a crucial point for social farms, both to achieve their social goals and to improve their economic viability. In recent years new groups of consumers have emerged as a critical reaction to the global standardisation and homologation of agricultural products leading to biodiversity loss, to the current economic system with its neo-liberal form of production, and to the poverty in developing countries. The search for alternatives has defined consumers' lifestyles in specific market segments and has led to the development of new food markets, focusing on local and typical products, often organic products, that embody values such as environmental sustainability, solidarity with small farmers, fair trade, social justice, wellbeing and personal health, that are marketed via direct or at least short value chains (Rossi et al. 2008; Schmit and Gomez 2011). The increasing importance of ethical concerns among food consumers may represent a notable opportunity also for social farms: in fact, their products are considered has having ethical attributes and the demand for these attributes suggests that the ethical functions of the farms could be explicitly remunerated by the market, at least to some extent (Carbone et al. 2009).
Based on this framework, our research aimed to investigate to what extent consumers are sensitive to social and health concerns, and if this can be expected to influence the consumer attitudes towards foods produced by social farms.

Methodology

The on-field research was conducted in the Friuli Venezia Giulia region, in North East Italy. The research is part of a project granted by a local healthcare authority (Azienda per l'Assistenza Sanitaria n. 5 "Friuli occidentale", Italy). It was structured in three main tasks: questionnaire planning, data collection and data analysis.
The questionnaire was designed to collect data on a convenience sample of people employed in the above mentioned authority, in order to explore their social consciousness, health consciousness and social farm food attitude (latent constructs). The sample is composed of 361 respondents after database filtering (valid cases).
The measurement scales of the three constructs are listed in Table 1. Those describing social consciousness were proposed in accordance with Ammentorp (2007), Berman (1997), Carbone et al. (2005, 2009), and Giddings (2005). Regarding health consciousness we

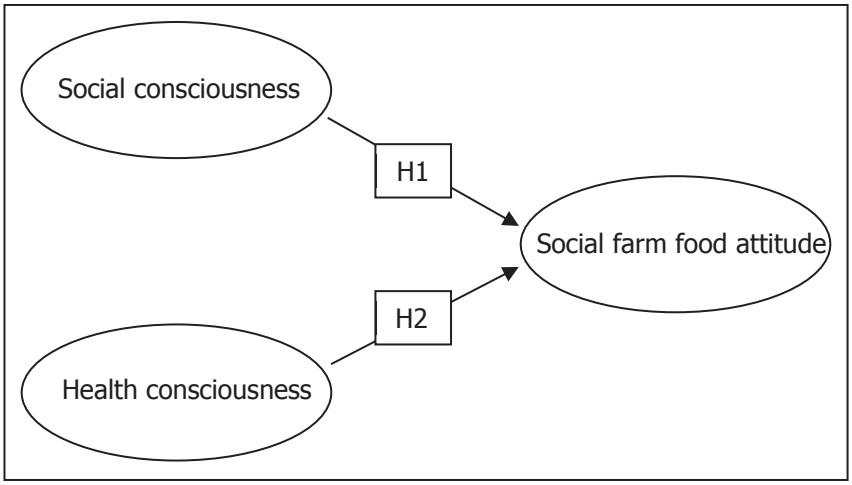
considered evidence from Chen (2009), Hartmann et al. (2013), Magnusson et al. (2001, 2003), Nassivera and Sillani (2015), Newsom et al. (2005), Pohjanheimo and Sandell (2009), and Steptoe et al. (1995). The measurement items describing social farm food attitude were proposed in accordance with Ajzen (1991), Ajzen and Fishbein (1980), Carbone et al. (2005, 2009), Choo et al. (2004), Nassivera and Sillani (2015), Shaw et al. (2000), and Shaw and Shiu (2002). Each item was explored using a 7-point Likert scale, i.e., the respondents were asked to indicate the extent of their agreement on a scale of 1 (strongly disagree) to 7 (strongly agree).

Table 1. Constructs and measurement scales

Constructs	Items
Social consciousness	I am sensitive to problems related to the economic crisis
	I am sensitive to problems related to social hardship
	I am interested in social equity
Health consciousness	I think about what I eat
	I look for and eat quality food products
Social farm food attitude	SFF is a quality product
	SFF is a quality product because it is environmentally sustainable
	SFF is a quality product because it is seasonal
	SFF is a better quality product when produced locally
	SFF is good value for money

The respondents were contacted by email using a graphical interface in PHP and a relational database (RDBMS: MySQL). Data was collected between January and April 2014 using the CASI (Computer Assisted Self Interviewing) method.
In order to investigate consumers' attitudes towards social farm foods, the relationships among the three latent constructs proposed in the model in Figure 1 were analysed.

Figure 1. Proposed model



Specifically, the proposed model is based on two hypotheses: social consciousness has a positive effect on consumers' attitude towards social farm foods (H1) and health

consciousness has a positive effect on consumers' attitude towards social farm foods (H2). These hypotheses were tested via a structural equation model (SEM) that was calculated with the linear structural relationship (LISREL) method, via LISREL 9.1 software (Jöreskog and Sörbom 2012).
In the preliminary stage of the research, interviewees' social farming awareness was also investigated. In fact, the respondents were also asked to indicate their level of social farming awareness, using a 7-point Likert scale. It was found that the majority of the respondents (61%) do not know or know little (levels 1-4) about social farming. Nevertheless, 22% of the respondents indicated a quite high level of awareness (equal to 5), and 4% declared that they are indeed aware of firms involved in social farming, their purposes, activities, products etc. (level 7).

Results

A two-stage analysis was adopted, estimating, firstly, the measurement model and, secondly, the structural model.
The measurement model (first stage) enucleates the links between the observed variables (items of each latent variable) and the corresponding latent variables (constructs); this corresponds to the classic confirmatory factor analysis (CFA). The model therefore enables us to comment on the validity and reliability of the measurement scale used for each construct. Overall, the results of this study indicate that the scales perform well (Table 2). This is confirmed by the fact that all the average variance extracted (AVE) scores are above the recommended threshold of 0.45, according to Dillon and Goldstein (1984).

Table 2. Latent constructs and measurement scale

Constructs and observed variables	Label	Factor loading	Standard error	AVE
Social Consciousness	SC			0.53
I am sensitive to problems related to the economic crisis	e-cris	0.70	0.51	
I am sensitive to problems related to social hardship	hardship	0.97	0.05	
I am interested in social equity	soc eq	0.67	0.55	
Health Consciousness	HC			0.47
I think about what I eat	alim att	0.80	0.37	
I look for and eat quality food products	res qual	0.79	0.42	
Social farm food Attitude	SFFA			0.59
SFF is a quality product	+ qual	0.78	0.40	
SFF is a quality product because it is environmentally sustainable	Env sost	0.79	0.38	
SFF is a quality product because it is seasonal	Seasonal	0.80	0.36	
SFF is a better quality product when produced locally	Local	0.61	0.62	
SFF is good value for money	+ val	0.46	0.79	

The structural model (second stage) identifies the causal relationships between the constructs. It is evaluated via several fit measures, which provide different output

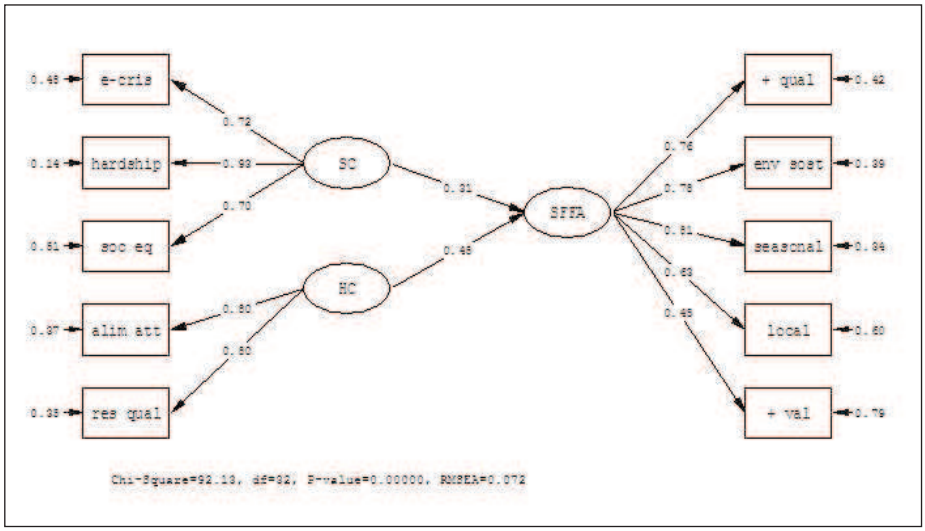
concerning the goodness-of-fit of the structural model: the goodness-of-fit index (GFI); the adjusted goodness-of-fit index (AGFI), which regulates the GFI for the degrees of freedom; the comparative fit index (CFI); the root mean square error of approximation (RMSEA), which in recent years has become regarded as one of the most informative fit indices (Diamantopoulos and Siguaw 2000) due to its sensitivity to the number of estimated parameters in the model (Browne and Cudeck 1993). The thresholds for these indices are discussed and disputed in many studies (Scott 1994; Bagozzi and Yi 1988; Browne and Cudeck 1993; Hayduk 1987). Table 3 lists the fit statistics for the structural model of this study. In general, higher values of GFI, AGFI and CFI indicate better fit. The results show that their values meet the more restrictive 0.90 threshold level (Bollen and Liang 1989). RMSEA is very close to the 0.08 level set by Browne and Cudeck (1993) as the maximum allowable for an acceptable model. The ratio χ^2/df suggests a good fit (Hayduk 1987). Overall, our indices suggest a good fitting model coherent with the quoted literature.

Table 3. Main indices of model fitting

Indices	Value
GFI	0.95
AGFI	0.92
CFI	0.97
RMSEA (Test of Close Fit)	0.07
χ^2 , with 32 degrees of freedom (df)	92.13
χ^2/df	2.87

Figure 2 shows the LISREL-generated model of the causal relationships between the three latent constructs and Table 4 describes the values of these relationships.

Figure 2. Path analysis of LISREL model



The existence of direct causal effects between the latent variables SC, HC, SFFA is confirmed by the fit indices proposed by SEM analysis, as mentioned above. These relations support all

the hypotheses and the model depicts a positive reactivity of potential consumers. These results suggest that market opportunities for SFF could be reinforced or even created by bolstering consumers' social and health consciousness, their knowledge of the characteristics of food produced by social farms and how it matches their ethical and ecological concerns.

Table 4. Total effects between the constructs

Hypotheses	Estimate (Standardised)	Standard error	t-value
(H1) SC → SFFA	0.31	0.05	5.05
(H2) HC → SFFA	0.45	0.04	6.44

Conclusions

The research investigated to what extent consumers are sensitive to social and health concerns, and if this can be expected to influence the consumer attitudes towards food produced by social farms.

The results from this study, firstly, confirm the reliability of the latent constructs, i.e., social consciousness, health consciousness, and social farm food attitude, on the observed variables. Secondly, the analysis of the causal relationships between these constructs supports the hypotheses of the proposed model. This implies that if consumers are aware of social concerns such as those regarding the vulnerable groups of people (e.g., people with physical or mental disabilities, former drug addicts, prisoners, older people with dementia, etc.), as well as the fact that the quality of life is also related to the quality, in a wide sense, of the foods they eat, these consumers could be potential buyers of foods produced by social farms.

These results indicate some implications for practice and proposals for future research. They could support policy-makers in the decision-process regarding strategies and activities for the development of the territory. For instance, information activities could be included in development agendas in order to further raise awareness on social farms and the quality of their foods, as well as on their social functions, namely their beneficial effects in terms of mental and physical health, well-being of the people with special needs, the positive effects on the wider community, and so on. Other interventions could aim to strengthen direct relationships between farmers and local communities, in order to support the creation of new market channels for SFFs.

Finally, future research could investigate the potentials of other consumer groups of social farm foods, which differ from our sample in at least socio-demographic characteristics, size and geographical area. Moreover, it should explore how the attitude towards SFFs may affect the consumers' behavioural intention towards such products.

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