Research report

Shoppers' perceived embeddedness and its impact on purchasing behavior at an organic farmers' market ☆

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ABSTRACT

This study explores the concept of perceived embeddedness (PE) and its impact on purchasing behavior at an organic farmers' market. Based on a review of the prior literature, the study refines the conceptualization and measurement of PE as a second-order factor construct reflected in its three dimensions: perceived social embeddedness, perceived spatial embeddedness, and perceived natural embeddedness. The study also suggests that organic farmers' market shoppers' PE is positively related to the two measures of purchasing behavior: expenditure per visit and repurchase intention. In a sample of 492 organic farmers' market shoppers in Beijing municipality, China, the study find support for the second-order factor structure of PE and the theorized relationship between the shoppers' PE and their purchasing behavior. The study also discusses theoretical and managerial implications of the findings.

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Introduction

In recent years, the concept of embeddedness has gained increasing attention among agro-food researchers. Embeddedness – the degree to which economic activity is constrained by non-economic factors – has been explicitly used as a paradigm for theorizing alternative food networks such as farmers' markets (FM), distinguishing them from the conventional and global food system (Sonnino, 2007). Prior research has also asserted that shoppers' perceived embeddedness (PE) is related to their purchasing behavior at FM (Cassia, Ugolini, Bonfanti, & Cappellari, 2012; Gao, Swisher, & Zhao, 2012; Hunt, 2007). Despite these important works, our extensive review of the literature reveals a few significant gaps that remain. First, there is a lack of consistency in these conceptualizations. In past studies, some researchers have conceptualized embeddedness as a single dimension – social embeddedness (Hinrichs, 2000; Hunt, 2007; Kirwan, 2004; Sinnreich, 2007), while others argue that embeddedness is a multidimensional construct (Feagan & Morris, 2009; Murdoch, Marsden, & Banks, 2000; Penker, 2006). Further, research to date is primarily conceptual or case study

oriented, but there has been less research on measurement of PE. A notable exception is Cassia et al. (2012) who developed and measured a new first-order construct labeled as the perceived "customer-company-territory interaction (CCTI)", capturing FM shoppers' perception of social and spatial embeddedness. In addition, although research has begun to link shoppers' PE to their purchasing behavior at FM (Cassia et al., 2012; Gao et al., 2012; Hunt, 2007), no specific effort has been made to examine the relationship between the comprehensive construct of shoppers' PE and their purchasing behavior.

Recognizing the need to better understanding the concept of embeddedness and the relationships between shoppers' PE and their purchasing behavior in the context of FM, the first goal of this study is to develop and validate a comprehensive conceptualization of PE. Extending prior research, we conceptualize PE as a latent construct reflected in three dimensions: perceived social embeddedness, perceived spatial embeddedness, and perceived natural embeddedness. *Perceived social embeddedness* is defined here as shoppers' perceived social interactions between the actors at organic FM, including enjoying the market, meeting the people, knowing the vendors, talking with vendors, and visiting a FM as a family event (Feagan & Morris, 2009; Hunt, 2007). *Perceived spatial embeddedness* refers to shoppers' perceived connections between them and local food, including "buying fresh, healthy produce, supporting local farms, buying local, and by some weaker extension, broader community support" (Feagan & Morris, 2009, p. 240). *Perceived natural embeddedness* is defined as shoppers' perceived connections between them and nature, including reduction in "food miles" and carbon footprint for local food, positive impacts on (agro-)

biodiversity and reduction in the use of agrochemicals for organic farms (Feagan & Morris, 2009; Kneafsey et al., 2013).

In this definition, PE is the higher-level general construct underlying its three dimensions. Our first reason for this conceptualization is that a high level of correlations between the first-order factors could cause a multicollinearity problem unless a higher-order construct is developed (Bagozzi & Heatherton, 1994). Second, a higher-order model can provide a higher level of abstraction than their underlying dimensions, making it easier to examine the relationship between PE and a research variable of interest (Hong & Thong, 2013).

The second goal of this study is to examine the influence of PE on purchasing behavior of shoppers at an organic FM. According to the utility model (Frenzen & Davis, 1990; Thaler, 1985), buyers in the real world may derive utility from other sources than the goods or services they purchased. For instance, Frenzen and Davis (1990) postulated two types of utility – *acquisition utility*, derived from the good purchased, and *exchange utility*, derived from the seller–buyer relationships. Apart from these two utilities, some researchers (e.g. Chen, 2013; Loewenstein, 2000; Virlics, 2013) added a utility – emotional utility, derived from contribution made to arouse feelings or affective states.

When applying the utility model to purchasing behavior at organic FM, shoppers are presented with opportunities to obtain multiple utilities. First, shoppers can obtain acquisition utility because of the ability of organic FM to provide fresh, safe, and locally produced food (related to perceived spatial embeddedness). Second, shoppers can obtain exchange utility from social interactions between the actors at organic FM (related to perceived social embeddedness). Finally, shoppers can obtain emotional utility since organic FM are beneficial for fostering shoppers' sense of supporting local (related to perceived social embeddedness) and increasing shoppers' understanding of the relationship between food and sustainability (related to perceived natural embeddedness). The three utilities contribute additively to the total utility that a shopper obtains from a purchase at organic FM. This implies that a shopper who has a greater embeddedness perception is able to realize more total utility than a shopper who has a lesser embeddedness perception. Generally speaking, when making a purchase decision, a shopper attempts to maximize the total utility. Accordingly, purchasing behavior at organic FM might be influenced by shoppers' PE. In this paper, we specify a measure of shoppers' purchasing behavior in terms of two indicators: (1) repurchase intention – the likelihood of purchasing at the FM again in the future, and (2) expenditure per visit. We expect that FM shoppers are more likely to purchase in greater expenditure and be more willing to repurchase when they have a higher embeddedness perception. The above discussion leads to the following hypotheses:

H1a: Shoppers' expenditure per visit will be positively influenced by their perceived embeddedness.

H1b: Shoppers' repurchase intention will be positively influenced by their perceived embeddedness.

Method

Data collection

Data were collected from shopper-intercept surveys conducted at an organic farmers' market in Beijing, China. The Beijing organic FM was established in 2011. Due to the cost of high rent, the Beijing organic FM has no permanent location and sets up in a different location depending on the space it is able to procure. According to the Beijing organic FM website, more than 20 vendors sell a large variety of food products, including fresh produce, honey, teas, baked goods, and processed food items. The Beijing organic FM usually operates from 9 am to 2 pm every weekend.

Prior to the data collection, student surveyors were trained to be familiar with the purposes of the survey, the instructions of the questionnaire, and the interpretations of the question items. We intercepted potential shopper participants at the Beijing organic FM. When the survey was conducted, trained student surveyors explained the purpose of the survey to those shoppers and asked them to participate. After receiving the consent from the shopper, the self-administered questionnaire was presented to them. While filling it in, any queries about the questions were clarified by the surveyors on the spot. After the questionnaire was completed, the surveyors collected it immediately and checked if all questions had been answered. A gift worth approximately 10 RMB (worth about US $1.4) was given to every participant at the end of the survey as an incentive for participation. Data collection occurred during Saturday and Sunday markets. Collection commenced April 4, 2013, and concluded May 26, 2013. A total of 534 surveys were completed. Questionnaires with incomplete information were removed, resulting in 492 usable questionnaires.

Measures

Measurement of the constructs was accomplished via the use of both established and original scales. We developed new scales for perceived embeddedness because no validated measurements of perceived embeddedness have been reported. Measures for repurchase intention and expenditure per visit were adapted from the established scales. In addition, basic demographic data was collected from each respondent, including gender, age, educational level, household monthly income, and household scale. The adopted operationalization of each construct is discussed as follows.

Perceived embeddedness

We used a multi-stage procedure to develop the scale for the PE construct (Hinkin, 1995). The starting point for item development was the major conceptual literature on embeddedness within the context of FM (Feagan & Morris, 2009) and the previous measures of FM shopper motivations (Alonso & O'Neill, 2011; Gao et al., 2012; Hunt, 2007). Based on an extensive literature review, a set of possible items of PE was generated.

To establish content validity, we followed the method of Chen (2013) and provided nine experts who have conducted research on farmers' market, consumer behavior, and research methodology with the conceptual definitions of the constructs, corresponding items and a set of instructions for judging. The expert judges were asked to rate each item as *not representative*, *somewhat representative* or *very representative* of the construct definition. The experts also commented on unclear and ambiguous items and came up with suggestions on how existing items might be improved. Based on an analysis of expert evaluation, we dropped some statements and modified others.

Finally, we pre-tested the draft survey with 35 organic FM shoppers, who were asked to complete the draft questionnaire and discuss the items in the questionnaire for comprehension, logic, and relevance. On the basis of their comments, we refined some items and ensured that the survey instrument was in an understandable and logical format.

As a result of this measurement development process, this version of the perceived embeddedness measure contained 10 items: 5 items assessing the perceived social embeddedness, 3 items assessing the perceived spatial embeddedness, and 2 items assessing the perceived natural embeddedness. Table 2 contains the items grouped within the specific components. A 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*) was used for all of the items.