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## Food Cooperatives' Innovations and System Dynamics in Local Food Networks

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### **Abstract**

Food cooperatives play an important role in local food networks as business organizations that use innovative business strategies to market local foods to their members and consumers. We utilize data from a national study of the members of eight food cooperatives in the U.S. The objective of this study is to understand the innovations and system dynamics of food co-ops as they are promoting and marketing local foods to their members/owners. Our findings show that food co-ops are much better rated by their members than mainstream grocery stores are rated by their consumers, especially in terms of store characteristics and quality of products offered. Food co-ops face significant competition from other grocery stores especially in terms of offering lower prices. We find that most consumer heterogeneity is among food co-ops, while periphery, mid-level, and core consumer groups seem more homogeneous in their perceptions. The results highlight that some local food promotion strategies that work well at some food co-ops may not work well at others because of different consumer composition and co-op size. Our conclusion is that food co-ops are an important player in local food supply chains, mostly in a niche, highly-differentiated markets.

**Keywords:** *food cooperatives, local foods*

### **1 Introduction**

The U.S. food system has two opposite systems: the global corporate model and the local/regional food network. The first system has a food retail sector that has become increasingly concentrated with mainstream supply chains separating producers and consumers through a chain of manufacturers, shippers, and retailers. The second system of local/regional food networks predominantly use local supply chains, particularly direct market sales to consumers through CSAs, farmers markets, farm stands, and other alternative outlets such as food co-ops.

Local/regional food networks are a collaborative effort to build more locally-based, self-reliant food economies. Food co-ops typically use innovative business strategies and system dynamics to market local products to their consumers. Food co-ops have been playing an important role in strengthening the local food networks and distributing local products to their consumers. Anecdotal data suggests that the members/owners of food co-ops as well as non-member shoppers have stronger preferences for local and organic foods and higher quality fruits, vegetables, and meats than the general population. However, food co-ops have been an understudied segment of local food supply channels because of lack of data.

Consumer interest in locally produced foods has been increasing in the U.S. (Kingsolver, Hopp, and Kingsolver, 2007 and Pollan, 2008). According to a nation-wide survey by the Hartman

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Group (2008), consumer interest in locally produced foods was driven primarily by their belief that these products are healthier. Two reports provide overviews of local food systems and compare them with the mainstream food supply chains (Martinez et al. 2010 and King et al. 2010). Other studies examine consumer preferences for locally produced foods and willingness to pay for such products. Other studies analyze how local food networks source and market local products. Several players in the local food networks have been studied previously: farmers markets, community-supported agriculture (CSAs), restaurants, grocery stores, etc. The role of food co-ops to supply locally produced products has only recently been examined in terms of the strongest reasons for sourcing locally (Liang and Michahelles, 2010) and their competitive advantages in sourcing local foods when compared to mainstream grocery stores (Katchova and Woods, 2012). Our goal is to examine the role of food co-ops in strengthening local food networks and marketing locally produced products. Specifically, we examine how food co-op members perceive that their co-ops strengthen and build local supplier connections.

A food co-op is a grocery store that is organized as a cooperative. Food co-ops are owned by their members (also called owners by some food co-ops), and typically feature natural and/or organic foods. Food co-ops follow the 7 Cooperative Principles: 1) open, voluntary membership, 2) democratic governance, 3) limited return on equity, 4) surplus belongs to members, 5) education of members and public in cooperative principles, 6) cooperation between cooperatives, and 7) concern for community (Wikipedia, Rochdale Principles). Most food co-ops require a relatively small investment in an initial membership share, and an additional financial contribution, such as an annual membership fee. Food co-op members vote on a one-member-has-one-vote basis and elect a board of directors from its members. Many of the current store-based food co-ops originally encouraged members to work voluntarily in the store in return for a member discount, but more recently, most food co-ops hire professional management and paid staff. Therefore, food co-ops have a distinctly different business organization than the mainstream grocery stores (Deller et al. 2009). Food co-ops serve as important business organizations that contribute to the increase in the density of local food networks and relations. We study consumer preferences for local foods for a group of shoppers that are typically perceived to be more interested in and concerned about food quality, farm sustainability, and community support issues.

The goal of this study is to understand the innovative strategies that food co-ops are using as they are promoting and marketing local foods to their members/owners. We specifically examine 1) how food co-op members rate their co-ops on various store and product characteristics and how these ratings compare with those of general shoppers rating their mainstream grocery stores, 2) how food co-op members evaluate the effectiveness of promotion strategies used by food co-ops and how extensively these strategies are used by food co-ops, 3) how food co-op members define "local" products, 4) how food co-op members mostly recognize their co-op efforts to promote local producers, and 5) how these measures vary across member types and food co-ops. We use primary survey data from food co-op members that are collected by the authors. Our survey methodology design includes first selecting 8 food co-ops around the U.S. and then collecting information from member

consumers within these co-ops. Our results reveal important insights into the consumer perceptions of food co-op members.

## **2 Methods**

We employ several different methods to study consumer perceptions of how well food co-ops are fulfilling consumer needs in general and local food demand in particular. The target group for our survey is consumers who are also members/owners of their food co-ops. We concentrate on members/owners because of their commitment, experience, and knowledge of their co-ops.

### *Survey design and data analysis*

Our survey methodology design is a two-step nested approach to administering the survey of first selecting the food co-ops and then surveying the members of these selected food co-ops. Therefore, the data are naturally nested within a higher level of analysis; in this case, the members of a particular food co-op are nested within that co-op. In the first step, 8 food co-ops were selected around the U.S. and recruited for participation in our food co-op member survey: City Market Co-op in Burlington, VT; Community Food Co-op in Bellingham, WA; Davis Food Co-op in Davis, CA; Good Foods Market and Café in Lexington, KY; New Leaf Market Co-op in Tallahassee, FL; The Co-op Food Stores in Hanover, NH; Weavers Way Co-op in Philadelphia, PA; and Willy Street Co-op in Madison, WI. The food co-ops were selected based on several criteria: their participation in our previous survey of the general managers of food co-ops (except for Weavers Way Co-op); mostly larger, well-established food co-ops; and food co-ops from different regions of the country (geographic diversity). We merged the general managers' survey data on the business strategies they use for promoting local foods with the member survey data on their perceptions of how effective these strategies are.

In the second step, the 8 food co-ops distributed invitations to their members to participate in a web-based survey in December 2011. We received 1985 usable responses from the members of the 8 food co-ops. In all analyses, we use survey weights equal to the number of members divided by the number of respondents for each co-op. In other words, these survey weights assign a weight of each co-op that is proportional to the number of members they have.

The survey asked food co-op members to rate their co-ops on 13 aspects involving store and employee characteristics and availability and quality of products. We have selected these questions based on a National Grocers Association (NGA) study of general consumers of mainstream grocery stores (National Grocers Association, 2011). Our results about food co-op member perceptions are then compared with the results from the NGA study of the consumers of mainstream grocery stores.

Food co-op members were also asked to rate their food co-ops on various local food promotion strategies. These results are summarized as well as compared with how extensively these promotion strategies were used as reported by the general managers of these co-ops in our previous survey. Finally, we asked food co-op members to identify the most important criteria

when defining local foods. We also asked members the various ways that they mostly recognize that their food co-ops support local producers. These results are summarized in the results section.

#### *Variation of consumer perceptions among food co-op members*

After performing the analysis for all members of the food co-op, we seek to understand if there are differences for consumers based on their commitment to their co-ops. We use measures originally defined by the Hartman Group's world model for different types of consumers (Hartman Group, 2008). They classify individuals into core, mid-level, and periphery consumers depending on their level of activity. Core consumers are identified as those that are most active, while those at the periphery maintain only a minimal, infrequent, and less-intense involvement. Consumers are classified on a number of dimensions including sustainability, authenticity, knowledge, experience, expert opinion, brand, convenience, and price. According to the Hartman Group, core consumers are primarily driven by sustainability, authenticity, and knowledge, while periphery consumers are mostly driven by convenience and price. Food co-op members in our study are classified based on their proportion of food dollars spent at the food co-op relative to the total amount they spend on food purchases. We define periphery consumers as those who spend 0-40% of their food dollars at their co-op, mid-level consumers as those who spend 40-60%, and core consumers as those who spend 60-100% of their food dollars at their co-op. Results are summarized and compared for the three groups of food co-op members. We expect to see differences because consumer demand for local products depends on the commitment of individuals to spend their food dollars on high quality products.

#### *Variation of consumer responses among food co-ops*

In addition to differences among groups of consumers, we also seek to understand differences among food co-ops. Specifically, we calculate summary statistics for each food co-op and then provide the minimum and maximum value among the 8 food co-ops. This allows us to examine the range of variation among food co-ops and make comparisons among food co-ops. We expect to see some differences due to differences in food co-op size, geographic location, and seasonality of products.

### **3 Data and results**

Members of 8 food co-ops were surveyed to understand more about their perceptions about their co-op store characteristics and quality of products offered as well as their recognition of various promotion strategies of local foods. The results here represent the opinions of food co-op members regarding their co-ops. Demographic characteristics for the sample follow. About 81% of the respondents are female. About 25% of the respondents are younger than 35 years old, 42% are between 35-54 years old, and 33% are older than 55 years old. Most participants live in the city (48%), followed by small town (22.5%) and suburb (16%). About half the participants have a graduate or professional degree. About 83% of the participants are Caucasian with the rest being minority. About 44% of the members have been shopping at the co-op longer than 10 years and about 37% have been members longer than 10 year. When

filling the survey, 19% of the members indicated willingness to donate their incentive payment for filling the survey to their co-op instead of using it themselves as a co-op gift card.

Table 1 presents member ratings of their food co-ops on 13 aspects using a four-level Likert scale: poor, fair, good, and excellent. Most members identify their food co-ops as excellent on several dimensions. Food co-ops excel in offering shoppers high quality products. The percent of members who rate their co-ops as excellent is 75.5% for high quality fruits and vegetables, 75.5% for high quality meats, 81% for locally grown foods, and 78.7% for organic foods. The food co-op store characteristics are also rated excellent by the majority of their members. The percent of members who rate their co-ops as excellent is 71.5% for being a clean, neat store and 77.2% for having courteous, friendly employees. These percentages are somewhat lower for a store layout that is easy to shop (44.2%) and fast checkout (51.4%). The only aspect that not many members rate their food co-ops as excellent is offering low prices: only 7.7% of the members agree with this statement.

Table 1 also shows the comparisons of results from our survey to those from the National Grocers Association's 2011 Consumer Survey Report (National Grocers Association, 2011). Our study surveyed the member-shoppers of food co-ops while the NGA study asked shoppers to rate the aspects based on their primary place of shopping. The percentages in the second part of the table represent differences between the summary responses from the food co-op members and the general grocery store shoppers. Not surprisingly, food co-ops excel in comparison to mainstream grocery stores on several aspects (last column in table 1). Regarding the availability of quality products (for fruits and vegetables, meat, local and organic foods), co-op members are 30.5% to 58% more likely to rate their co-ops as excellent when compared to shoppers at any grocery store. Store characteristics are also more highly rated by food co-op members: they are 10.2% to 33.2% more likely to rate their co-ops as clean stores, with good store layout, fast checkout, and friendly employees than their mainstream grocery store shopper counterparts. The only aspect that food co-op members rated their co-ops below shoppers at other grocery stores is offering low prices: co-op members are 30.3% less likely to rate their co-ops as excellent on this dimension in comparison to shoppers at mainstream grocery stores.

**Table 1.**  
Member rating of their food co-ops and differences between them and the consumer evaluations of their grocery stores

Category	Member rating of their food co-ops <sup>a</sup>				Differences from general population <sup>b</sup>			
	Poor	Fair	Good	Excellent	Poor	Fair	Good	Excellent
A clean, neat store	0.3%	2.7%	25.5%	71.5%	0.3%	-1.3%	-14.5%	15.5%
High quality fruits and vegetables	0.6%	2.8%	21.2%	75.5%	-0.4%	-6.2%	-23.8%	30.5%
Courteous, friendly employees	0.4%	3.4%	19.0%	77.2%	-0.6%	-8.6%	-24.0%	33.2%
High quality meats	0.5%	2.7%	21.2%	75.5%	-0.5%	-9.3%	-23.8%	33.5%
Store layout that makes it easy to shop	2.2%	12.8%	40.8%	44.2%	1.2%	1.8%	-13.2%	10.2%
Low prices	5.4%	41.1%	45.8%	7.7%	4.4%	33.1%	-7.2%	-30.3%
Paying attention to special requests or needs	1.0%	4.8%	23.5%	70.7%	-2.0%	-19.2%	-29.5%	50.7%
Fast checkout	0.4%	4.5%	43.8%	51.4%	-1.6%	-15.5%	-11.2%	28.4%
Having nutrition and health information for shoppers	1.1%	7.0%	41.6%	50.3%	-5.9%	-21.0%	-4.4%	31.3%
Offers locally grown produce and other local packaged foods	0.4%	1.8%	16.8%	81.0%	-9.6%	-27.2%	-21.2%	58.0%
Offers organic food including produce and packaged foods	0.4%	2.2%	18.7%	78.7%	-3.6%	-23.8%	-23.3%	50.7%
Convenient location	0.8%	5.3%	28.6%	65.4%	-0.2%	0.3%	-10.4%	9.4%
Accurate shelf tags	0.7%	3.2%	31.9%	64.1%	-0.3%	-4.8%	-21.1%	26.1%

Note: <sup>a</sup> The percentages are based on our survey of members of 8 food co-ops.

<sup>b</sup> The percentages represent differences between summary responses given by food co-op members from our survey (as indicated in the first part of the table) and summary responses of general grocery store consumers from the NCGA study.

The variation in member responses among food co-op members and among food co-ops is presented in table 2. The first column presents the percent of members rating their co-ops as excellent, summarized across all members and co-ops (as shown in table 1). Next, food co-op members are classified in three groups based on the proportion of food dollars that they spend at the co-op relative to the total amount they spend on grocery store food purchases. We define periphery consumers as those who spend 0-40% of their food dollars at their co-op, mid-level consumers as those who spend 40-60%, and core consumers as those who spend 60-100% of their food dollars at their co-op. About 39.7% of the food co-op members spend 0-40% of their grocery purchases at the food co-op, about 20.3% spend 40-60%, and 40.0% spend over 60% of their grocery purchases at the co-op. Table 2 also shows the percent of members rating their co-ops as excellent, for the three groups of periphery, mid-level, and core members. Consistent with the Hartman Group world model, periphery consumers are less likely to rate their co-ops as excellent on convenient location and price: 53% of periphery consumers rate their co-ops as excellent with respect to convenient location versus 75% of core consumers rate their co-ops as excellent on convenient location, and 6% of periphery consumers rate their co-ops as excellent with respect to price versus 10% for core consumers. Notably, there is some variation in responses based on the member commitment to shop at their co-ops, although consistent trends are hard to identify among periphery, mid-level, and core consumers.

Variation among food co-ops is measured by calculating the percent of members rating their food co-ops as “excellent” separately for each co-op and examining the range of variation in percentages among food co-ops. Table 2 also shows the lowest and highest percentages for the 13 aspects among the 8 food co-ops. The results show that there is a considerable variation among stores on member perceptions of co-op store characteristics. When the food co-op aspects rated as “excellent” are compared among food co-ops, there is a difference of 32% for co-ops being clean, neat stores, 37% for having nutrition and health information for shoppers, 32% for fast checkout, 29% for store layout, and 23% for convenient location between the food co-ops rated highest and lowest by their members. On the other hand, there is a comparatively less variation among co-ops when examining the proportion of members rating product quality as excellent: there is a difference of 17% for high quality fruits and vegetables, 16% for quality meats, 27% for local foods, and 21% for organic foods. As observed in the national study of general managers of food co-ops, such variations among food co-ops are to be expected because of differences in their geographic region, store size, and availability of competing stores in the area (Katchova and Woods, 2012).

Food co-op members also rated their co-ops with respect to the business strategies they used to promote and market local foods (table 3). The results reveal excellent member evaluations for the food co-op’s social media/interactions with shoppers. The percent of members who rate their food co-ops strategies as excellent is 63% for newsletters, 44% for social media/Facebook, 41% for the co-op’s website, and 22% for blogs. A relatively high proportion

**Table 2.**  
Percent of members rating their co-ops as excellent: variation among food co-op members and among food co-ops

Category	Average across co-ops <sup>a</sup>	Variation among food co-op members <sup>b</sup>			Variation among food co-ops		
		Periphery	Mid-level	Core	Lowest	Highest	Differences
A clean, neat store	71.5%	76%	67%	69%	54%	86%	32%
High quality fruits and vegetables	75.5%	76%	66%	80%	65%	82%	17%
Courteous, friendly employees	77.2%	77%	74%	80%	72%	83%	11%
High quality meats	75.5%	78%	68%	77%	66%	82%	16%
Store layout that makes it easy to shop	44.2%	47%	38%	44%	29%	58%	29%
Low prices	7.7%	6%	8%	10%	5%	11%	6%
Paying attention to special requests or needs	70.7%	69%	68%	73%	60%	76%	16%
Fast checkout	51.4%	56%	52%	47%	37%	69%	32%
Having nutrition and health information for shoppers	50.3%	60%	41%	46%	27%	64%	37%
Offers locally grown produce and other local packaged foods	81.0%	77%	78%	86%	64%	91%	27%
Offers organic food including produce and packaged foods	78.7%	81%	68%	82%	69%	90%	21%
Convenient location	65.4%	53%	70%	75%	50%	73%	23%
Accurate shelf tags	64.1%	68%	53%	67%	58%	73%	15%

Notes: <sup>a</sup> The numbers represent the percent of members rating their co-ops as excellent, summarized across all members and co-ops (as shown in table 1).

<sup>b</sup> The numbers represent the percent of members rating their co-ops as excellent, for the three groups of periphery, mid-level, and core members.

<sup>c</sup> The numbers represent the percent of members rating their co-ops as excellent, calculated separately for each co-op, and presenting the lowest and highest numbers and the difference between them.

of members rate as excellent their co-ops' efforts to sample and display seasonal, local products: 40% for the use of farm brands, 35% for end caps or special displays, 37% for product sampling, and 52% for promotion of seasonal products. A large number of members also appreciate their staff knowledge on local products, their co-ops' deli features, and on-site and off-site festivals.

These results are compared with the results from a survey the general managers of food co-ops (Katchova and Woods, 2011). Table 3 summarizes the results for seven food co-ops that participated in both the general managers' survey and the member survey (Weavers Way Co-op only participated in our food co-op member survey). Food co-ops extensively use several promotion strategies for local foods: 40% extensively use end caps or special displays, 40% extensively use product sampling, 32% extensively use promotion of seasonal products, and 35% extensively use farmer photo and stories displays. Also, newsletters are much more extensively used (47% of the co-ops) than other forms of social media. Food co-op members are most likely to rate their food co-ops as excellent for the following promotion strategies: newsletters (63%), staff knowledge on local products (57%), promotion of seasonal products (52%), the use of social media/Facebook (44%), website (42%), sponsorship of off-site local food events (42%), and deli features (44%).

Food co-op members were also asked to define the criteria they use in defining "local" products (table 4). The percent of members who rate the following criteria as "most important" (on a seven-level Likert scale) for defining local foods is 23% for food produced within so many miles, 22% for food produced within the state, 29% for food produced within region, 30% for small family farm supplier, and only 4% for a distinctive locale not necessarily within the area. There are not too many differences for responses from periphery, mid-level, and core members, but there is some variation among responses for different food co-ops. For example, the percent of members who consider produced-within-state most important when defining local foods ranges from 7% to 39% depending on the co-op. For most categories, there is at least 10% difference in the proportion of members who use a certain criteria in defining local. These findings show that the consumer definition of "local" does not vary much based on the member involvement with the co-op (periphery, mid-level, and core) but rather varies based on the regional differences among food co-ops. For example, for food co-ops located in the New England region, local food is considered food produced within the region, while for co-ops located in the Midwest, food produced within the state is considered local.

Members also stated how they recognize their co-op's efforts to promote local producers on a five-level Likert scale (from rarely to extensively) with the results being reported in table 5. The percent of members extensively recognizing their co-op's efforts are 58% for "local" labels on products, 39% for farmer labels on products, 35% for the co-op newsletter, and 31% for general in-store promotion materials. Other co-op efforts to promote local foods are less recognized. Again, there is not a considerable variation between the different types of consumers, but there is a considerable variation among members of different co-ops. For example, when

**Table 3.**  
Local food promotion in food co-ops: member rating and food co-ops' use of these strategies

Category	Member rating of promotion strategies used by food co-ops <sup>a</sup>				Frequency of use for promotion strategies by food co-ops <sup>b</sup>			
	Poor	Fair	Good	Excellent	Minimal	Occasional	Frequent	Extensive
Farmer photos displays	11%	32%	40%	17%	0%	34%	31%	35%
Farmer stories displays	11%	34%	41%	15%	6%	7%	51%	35%
Use of farm brands	1%	10%	49%	40%	0%	0%	82%	18%
End caps or special displays	2%	14%	49%	35%	0%	42%	19%	40%
Product sampling	3%	18%	42%	37%	0%	47%	13%	40%
Promotion of seasonal products	0%	9%	39%	52%	14%	18%	35%	32%
Cross-promotion with other products	3%	26%	48%	24%	21%	33%	35%	12%
Farmer-led sampling	15%	32%	38%	15%	21%	33%	40%	7%
Newsletters	1%	6%	30%	63%	0%	21%	33%	47%
Social media/Facebook, etc.	2%	13%	41%	44%	21%	42%	18%	19%
Website	1%	9%	49%	41%	0%	61%	33%	7%
On-site festivals	1%	10%	42%	48%	26%	18%	55%	0%
Deli features	2%	11%	43%	44%	35%	31%	28%	6%
Sponsorship of off-site local food events	1%	9%	47%	42%	21%	49%	12%	19%
Staff knowledge on local products	0%	4%	38%	57%	0%	26%	67%	7%
Blogs	8%	26%	45%	22%	67%	14%	12%	7%

Note: <sup>a</sup> The numbers are from the member survey for 8 food co-ops.

<sup>b</sup> The numbers are from a previous survey of general managers of the 8 food co-ops that also participated in the member survey.

**Table 4.**

Percent of members rating the following criteria "most important" when defining "local": variation among food co-op members by type of consumer and among food co-ops

Category	Average across co-ops	Variation among food co-op members			Variation among food co-ops	
		Periphery	Mid-level	Core	Lowest	Highest
Produced within so many miles	23%	20%	25%	25%	19%	29%
Produced within the state	22%	21%	22%	22%	7%	39%
Produced within the region	29%	32%	24%	28%	21%	37%
Small family farm supplier	30%	26%	33%	33%	23%	44%
100% grown in the area	25%	24%	25%	26%	19%	34%
100% processed in the area	18%	18%	18%	19%	11%	27%
Store purchases directly from the grower	34%	30%	35%	38%	22%	50%
Distinctive "locale" not necessarily within the area	4%	4%	6%	3%	1%	8%

**Table 5.**

Percent of members recognizing "extensive" promotion of local producers by promotion strategy: variation among food co-op members by type of consumer and among food co-ops

Category	Average across co-ops	Variation among food co-op members			Variation among food co-ops	
		Periphery	Mid-level	Core	Lowest	Highest
State Department of Ag logos on products	9%	11%	7%	7%	3%	25%
Farmer label on a product	39%	36%	35%	44%	31%	49%
"Local" label on product	58%	52%	60%	63%	46%	69%
Cross-promotion with other local products	11%	12%	12%	10%	6%	14%
Farmer-led sampling	9%	9%	9%	9%	5%	13%
Co-op employee-led sampling	15%	16%	12%	17%	8%	19%
Co-op newsletter	35%	38%	38%	31%	16%	50%
Store ad circular/other print ads	25%	31%	26%	20%	21%	30%
General in-store promotion material	31%	29%	31%	34%	24%	35%
Meet-the-farmer functions	8%	9%	11%	6%	2%	15%

comparing member responses among food co-ops, the percent of members who extensively recognize that their co-ops promotion strategies varies as follows: 46% to 69% for “local” label on product, 31% to 49% for farmer label on product, and 16% to 50% for co-op newsletter, and 24% to 35% for general in-store promotion materials.

#### **4 Conclusions and discussion**

Food co-ops are important business organizations that play an important role in local food networks. Food co-ops excel in promoting local foods to their members and shoppers. Our findings show that food co-op members rate their co-ops very positively on a number of store characteristics and quality of products. The ratings of food co-op members far exceed those of general consumers rating mainstream grocery stores.

We examine the variation in responses by the type of consumer: periphery, mid-level, and core consumer depending on the proportion of food expenses that they spend in their food co-ops. We also examine variations in member responses among food co-ops. Our results show that there exist more differences among members of different food co-ops rather than among food co-op members in the periphery, mid-level, and core groups when rating various store and food quality aspects and local food promotion strategies. This is most likely due to differences in co-op location/region, co-op size, and seasonal availability of products.

These findings help food co-ops to identify the business strategies that are most effective in the promotion of local foods in terms of consumer recognition. Knowing which business strategies mostly appeal to core, mid-level, and periphery consumers will help food co-ops develop better sourcing and advertising strategies and target their promotion. The results also highlight that because of consumer heterogeneity some strategies that work well at one food co-op may not work well at others because of different consumer composition and co-op size.

Food co-ops are much better rated by their members than mainstream grocery stores are rated by their consumers, especially in terms of store characteristics and quality of products offered. Food co-ops face significant competition from other grocery store in the area especially in terms of offering lower prices. Therefore, food co-ops are an important player, mostly in a niche, highly differentiated markets for local and other high quality products supply chains.

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