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## **The Effectiveness of Local Food Marketing Strategies of Food Cooperatives**

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# **The Effectiveness of Local Food Marketing Strategies of Food Cooperatives**

## **Abstract**

This study examines the role that food consumer cooperatives play in the local food networks. Data are collected from three case studies with leading food cooperatives and a national survey of the general managers of food cooperatives. We identify the emerging business practices in local sourcing as a differentiation and member recruitment strategy for food cooperatives. Our analysis identifies several clusters of strategies used for local food procurement, based on the extent to which the co-op is involved in procurement activities upstream (at the farm), mid-stream (at the distribution center) or downstream (at the food cooperative). The results also show that when compared to other grocers, food co-ops have clear advantages in working with local producers and oftentimes play a key role in the producers' business viability.

*Key words:* food consumer cooperatives, local foods.

JEL: Q13

## **The Effectiveness of Local Food Marketing Strategies of Food Cooperatives**

Local/regional food networks are a collaborative effort to build more locally-based, self-reliant food economies. These local food networks emphasize sustainable food production, processing, distribution, and consumption that are integrated to enhance the economic, environmental and social health in a particular location and are considered to be a part of the more global sustainability movement.

Local food networks include organizations that produce, distribute, and promote locally produced products. While grocery retailers, restaurants, and other organizations may include locally produced products, it is food consumer co-ops, Community Supported Agriculture (CSA), and farmers markets that are uniquely positioned in the local food networks and capable of placing greater emphasis on locally produced products. One of the key aspects is the emphasis on “local sourcing” which is defined as the consumers’ preference to buy locally produced goods and services.

Local food networks are an alternative business model to the global corporate models where producers and consumers are separated through a chain of processors, manufacturers, shippers and retailers. As the food industry grows, the consumers are not always able to assess the quality of food. Conversely, local food networks have re-established the direct relationship between producers and consumers to increase the quality characteristics of the products which include freshness and durability but also include characteristics such as the method and location of producing. Traditional grocery retailers are also responding to high demand for local

products, but there is a potential for consumer cooperatives to have advantage in scale, customer focus, and credible community orientation for locally produced products.

Consumer cooperatives and in particular food consumer cooperatives have increased in importance. Over the past decade, it is estimated that about 300 to 350 food co-op stores have been operating in the U.S.; these food co-ops have been serving nearly 150,000 households throughout the U.S. (Deller et al. 2009). Cooperatives that operate retail stores are predominantly single-store operations and several of them have expanded into non-grocery businesses such as restaurants and delis. The store-based food cooperatives are usually characterized by their strong support for natural and organic foods, community activities, environmental sustainability, and local food systems.

According to Deller et al. (2009), food consumer cooperatives have a distinctly different business organization than the more traditional grocery stores. Most food cooperatives require a relatively small investment in an initial membership share, and an additional financial contribution, such as an annual membership fee. Investment in membership shares is considered a contribution to equity, while membership fees are usually treated as income. Consumer cooperatives do not have to pay income taxes on member-based income if they distribute that income back to members either as cash or as allocated patronage. However, they will need to pay income taxes on non-member income and unallocated member income. Food cooperative 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 consumer cooperatives originally encouraged members to work voluntarily in the store in return for a member discount, but more recently, most food co-op stores hire professional management and paid staff.

Consumer interest in locally produced foods has been increasing in the U.S. The popular press has frequently published articles on local foods. In addition, two recent best-selling books (Kingsolver, Hopp, and Kingsolver 2007; Pollan 2008) show the growing interest in sourcing local food products by making the case for going “local.” According to a nation-wide survey by the Hartman Group (2008), many consumers define local in terms of distance from their home with 50% define local as made or produced within 100 miles, while 37% of consumers understood local to mean made or produced in their state. The survey also indicates that consumer interest in locally produced foods was driven primarily by their belief that these products are healthier.

The literature on consumer preferences for locally produced food is limited. Darby et al. (2008) analyzed stated preference data for locally produced foods among consumers in Ohio; they concluded that demand for local products exists and that the value consumers place on local production is separate from other factors such as farm size and product freshness. In particular, the authors found that that consumers prefer locally grown over U.S. grown, even when freshness is held constant, and are willing to pay almost double for a product from a closer location. Their study concentrated on shoppers at farmers markets as opposed to consumers at traditional retail groceries. In another study, Hu, Woods, and Bastin (2009) examined consumer acceptance and willingness to pay for three nonconventional attributes including whether the product was produced locally. The results show that local products generally receive positive willingness to pay across all products, clearly showing consumers’ preference toward locally produced products. A subsequent study identified a local premium for a prototypical processed product (blackberry jam) and also identified differences in consumer preferences for local products associated with various types of products (Batte et al. 2009). Other studies by Hardesty

(2008) and Brown and Miller (2008) have considered the growing role of local food networks. They explored the economic impacts that farmers markets and Community Supported Agriculture (CSA) have on the communities, consumers, and producers. Using case studies of a number of farmers markets in both rural and urban areas, and in three states from the east to west coasts, Gillespie et al. (2007) found that farmers markets play an important role in building local food networks. These studies concentrated on two elements of the local food networks: farmers markets and CSAs.

The role of food consumer cooperatives, a third major component of local food networks, to supply locally produced products has not been examined in the literature even though the popularity of food co-ops with consumers has been increasing over time. Our goal is fill the gap in the literature by examining the role of food consumer co-ops in strengthening the local food networks and the distribution of locally produced products. Food co-ops serve as important business organizations that contribute to the increase in the density of local food networks and relations. Food co-ops also expand the reach of local food markets to a variety of consumers: from “core” to “periphery” consumers. The economic interactions that take place at food co-ops are combined with social interactions that make them valued community institutions.

Our goal is to identify the emerging business practices in local sourcing as a differentiation and member recruitment strategy for food cooperatives. The specific objectives are 1) to determine which supply chain management strategies are most used and effective for food cooperatives and 2) to group food cooperatives into “clusters” based on the extent of supply chain engagement that they demonstrate to procure and promote local foods. To our knowledge, this is the first in-depth national study of the role that food cooperatives play in the local food networks.

## **Data and Methods**

Data are obtained from a national survey of the general managers for food consumer cooperatives. This is a unique national survey conducted by the authors and funded by a USDA-Rural Development grant. The first part of the survey questionnaire includes questions about the procurement of local foods and relations with farmers. Specific questions include supply chain strategies to manage and assist farmers with production and planning activities and the relative advantages/disadvantages of working with local farmers when food cooperatives are compared to other grocers. The second part includes questions about the promotion of local foods. Specific questions ask about the approaches that the food cooperatives use to promote local products to their patrons such as advertising via labels, farmer photos and stories as well as organizing farmer-led sampling, on-site festivals, deli features, etc. The survey is conducted in 2010 with a target sample of about 350 food cooperatives across the US.

There are 61 responses received from food cooperatives. Cooperatives range in founding dates from 1936 to 2003 with the majority being formed between 1970 and 1979. The co-ops have on average 4,407 members. The approximate percent of sales to non-members represents a range from 13% to 85% with an average of 41% from 33 responses. The average number of FTE's is 66.

We seek to determine the key clusters of supply chain integration strategies that are most used and effective in sourcing and promoting local foods. We will use principal components analysis and a segmentation technique to estimate specific clusters that each food cooperative belongs to depending on the type of activities they engage in. After the clusters are determined, we will look for common characteristics of the food cooperatives that influence the intensity of



use of particular activities aimed at facilitating and increasing local food consumption. Our goal is to group food cooperatives into homogenous clusters based on their intensity of use and advantages when using strategies in sourcing and promoting local foods.

## **Results and Discussion**

Preliminary results show that the percent of annual gross sales that comes from local products varies depending on the department. For example, the meat department has the highest percent of local products (45.21%) whereas health/nutrition/cosmetics have the lowest (5.78%). Dairy products, fresh produce, and deli have about 30% of their products sources from local providers. On average, 21.84% of the gross annual sales for the cooperative are locally produced. On average, food cooperatives work with 9.12 dairy farmers, 21.45 producers of fresh products, and 6.19 meat producers. The percent of local products has stayed the same or increased over the last two years for almost all cooperatives. Many cooperatives also believe that there is somewhat to significant competition among farmers to introduce new products. About 1/3 to 80% of cooperatives also view grocery stores as competing to introduce local products.

Overall, food cooperatives state that they have an advantage working with local farmers when compared to other non-coop grocery stores in the area. They also use all business functions and strategies at least to some extent when working with local growers/suppliers. Food cooperatives also use several approaches to promote local products, including farmer photos and stories, food sampling, newsletters and social media, etc.

Principal components analysis is a data reduction technique used to reduce the dimensions of the 18 advantages/disadvantages into a few components. The first four components which have eigenvalues above 1 explain 67.6% of the variation in the data and were

retained. Then the factor loadings are calculated which reflect the correlation of the original business functions with each of the components (table 3). Based on the original business factors with factor loadings of greater than 0.3, we name the components: merchandising, farmer assistance, price/quality negotiations, and volume planning. The four factors jointly explain about two-thirds of the variation in the data. The four components are then used in the Ward's cluster analysis to determine the number of clusters (figure 2). Looking at the dendrogram, three clusters will be used to segment the food cooperatives. Using a k-means cluster analysis, the food cooperatives are grouped into three clusters and their final cluster centers for each of the four components are shown in table 2. Various food cooperative's characteristics by cluster are reported in tables 5, 6, and 7.

The results show that there exists a considerable variation in sourcing and promotion strategies among food cooperatives across the US. The supply chain management activities critically depend on the food co-op size and age and geographic location. Larger cooperatives are better able to develop more sophisticated strategies that have clear advantages over similar strategies used by other non-cooperative grocers. Also, the geographic location plays a critical role in the availability of local foods and the complexity of their distribution systems.

We identify several clusters of strategies used for local food procurement. These clusters are predominantly based on the extent to which the co-op is involved in procurement activities upstream (at the farm), mid-stream (at the distribution center) or downstream (at the food cooperative). Some cooperatives belong to clusters that use sophisticated activities aiming to help producers such as production planning, loan assistance, and distribution assistance. Other cooperatives are clustered as being consumer-oriented, relying heavily on consumer demand and preferences in delivering local products to their patrons. These clusters are further examined to

differentiate the types of cooperatives that fall into each category based on their total value of sales, geographic location, year in business, and other cooperative characteristics. The results also show that when compared to other grocers, food co-ops have clear advantages in working with local producers and oftentimes play a key role in the producers' business viability.

These findings help food cooperatives to identify the strategies that are typically most successful in their procurement and promotion of local foods. As a result, food cooperatives will be able to develop better supply chain management and new cooperatives will be better aware of viable business models corresponding to their local food supplier environment. We show the key role that food cooperatives play in the local food networks and the strategies most successful to connect local producers with consumers using the food co-op business model.

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Table 1. Advantages or disadvantages working with local farmers as compared to no co-op grocers in the same area

	Major Disadvantage	Slight Disadvantage	No Difference	Slight Advantage	Major advantage	# of Responses
Price Negotiation	11.67%	16.67%	26.67%	26.67%	18.33%	60
Lower margin for local	12.07%	24.14%	27.59%	17.24%	18.97%	58
Quality Negotiation	1.67%	13.33%	33.33%	33.33%	18.33%	60
Delivery/Logistics coordination	5.00%	15.00%	21.67%	38.33%	20.00%	60
Local merchandising material design	3.39%	11.86%	32.20%	33.90%	18.64%	59
Volume Planning	17.24%	17.24%	27.59%	25.86%	12.07%	58
Packaging design	5.17%	17.24%	55.17%	13.79%	8.62%	58
Food safety/quality assurance	1.75%	10.53%	52.63%	26.32%	8.77%	57
Planning merchandising events	3.45%	13.79%	20.69%	29.31%	32.76%	58
In-store farmer sampling	3.39%	1.69%	25.42%	42.37%	27.12%	59
Local producer rights advocacy	1.85%	1.85%	42.59%	35.19%	18.52%	54
New product development	5.26%	12.28%	45.61%	26.32%	10.53%	57
Assistance with farmer loans	14.55%	14.55%	43.64%	10.91%	16.36%	55
Farm Production Planning	5.26%	17.54%	29.82%	33.33%	14.04%	57
Annual producer group meetings	5.36%	5.36%	33.93%	28.57%	26.79%	56
Farm Visits	1.69%	5.08%	22.03%	37.29%	33.90%	59
Farmer Co-op development	5.66%	5.66%	47.17%	22.64%	18.87%	53
Vendor Managed inventory	7.55%	11.32%	60.38%	15.09%	5.66%	53

Table 2. Total variance explained by component factors

Component	Variance	Difference	Proportion	Cumulative
Comp1	5.737	3.084	0.319	0.319
Comp2	2.653	0.458	0.147	0.466
Comp3	2.195	0.607	0.122	0.588
Comp4	1.588	.	0.088	0.676

Table 3. Factor loadings of advantages/disadvantages of food cooperatives

Category	Merchan- dising	Farmer assistance	Price/quality negotiations	Volume planning	Unexplained variation
Price Negotiation	0.026	0.069	0.546	-0.097	0.246
Lower margin for local	-0.125	0.003	0.583	0.217	0.306
Quality Negotiation	0.166	-0.139	0.450	-0.100	0.355
Delivery/Logistics coordination	0.392	-0.157	0.086	-0.087	0.314
Local merchandising material design	0.393	-0.137	-0.019	0.058	0.308
Volume planning	0.281	0.166	0.096	-0.363	0.260
Packaging Design	0.209	0.321	-0.067	-0.260	0.357
Food safety/quality assurance compliance	0.252	0.175	0.035	-0.142	0.386
Planning merchandising events	0.413	-0.117	-0.179	0.172	0.226
In-store farmer sampling	0.354	-0.045	-0.053	0.118	0.304
Local producer rights advocacy	0.172	0.228	-0.142	0.126	0.491
New Product Development	0.175	0.252	-0.111	0.201	0.318
Assistance with farmer loans	-0.124	0.633	-0.021	0.035	0.238
Farm Production Planning	0.023	0.420	0.143	0.075	0.240
Annual producer group meetings	0.056	0.160	0.052	0.492	0.240
Farmer co-op development	0.229	-0.056	0.162	0.170	0.423
Vendor managed inventory	0.085	0.020	0.070	0.543	0.279
Farm Visits	0.168	0.184	0.122	-0.177	0.536



Table 4. Final cluster centers based on standardized factor scores

	Cluster 1	Cluster 2	Cluster 3
Merchandising	0.15	2.88	-2.49
Farmer assistance	-0.08	1.51	-1.07
Price/quality negotiations	0.04	1.44	-1.20
Volume planning	0.22	0.55	-0.75

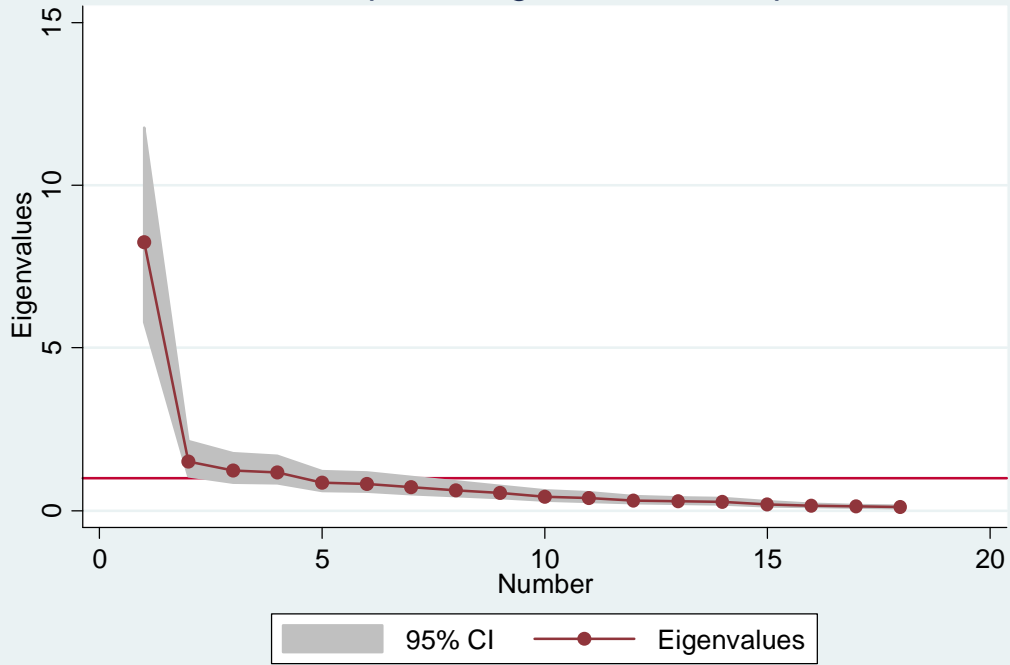
Table 5. Food cooperatives' characteristics by clusters

	Cluster 1	Cluster 2	Cluster 3
Number of stores	1.27	1.13	1.11
Annual gross sales 2010	10,300,000	10,500,000	4,609,606
Year coop founded	1974	1978	1976
Number of members	4,656	6,660	3,777
Percent of sales to non-members	33	43	44
Number of employees and management FTE	67	91	32
Local food within ___ miles	110	150	128
Local food within state	0.50	0.33	0.41
Local food within geographic region	0.50	0.33	0.29
Percent sales from local products	23	21	19
Number of local grower-vendors	84	89	31

Table 6. Food cooperatives' characteristics by clusters

	Cluster 1	Cluster 2	Cluster 3
<i>Change in percent of local foods for</i>			
dairy products	4.08	4.13	4.00
fresh produce	3.88	4.53	4.05
meats	4.00	4.57	3.94
Packaged goods	3.62	3.80	3.50
Health/nutrition/cosmetics	3.50	4.20	3.33
Competition among farmers			
Meat products	2.21	2.73	2.83
Dairy	2.35	2.36	2.61
Fresh produce	3.07	3.00	3.37
Grocery	2.00	2.07	2.32
Competition from other area grocers to introduce new local categories			
Meat	2.77	2.27	3.89
Dairy	2.35	2.40	3.47
Fresh produce	2.85	2.33	4.00
Grocery	2.41	2.00	3.42

Scree plot of eigenvalues after pca



Dendrogram for cluster analysis

