Local Foods and Food Cooperatives:
Ethics, Economics and Competition Issues

Ani L. Katchova and Timothy A. Woods
University of Kentucky

Agricultural Economics Staff Paper # 480
2013

This staff paper is an electronic version of a book chapter, please cite as:

Katchova, A.L., and T.A. Woods. "Local Foods and Food Cooperatives: Ethics, Economics, and Competition Issues." book chapter in the Ethics and Economics of Agrifood Competition, Harvey S. James, ed. Springer, Chapter 12, pp. 227-242, 2013.

Ani L. Katchova is an Associate Professor and Timothy A. Woods is an Extension Professor in the Department of Agricultural Economics at the University of Kentucky. The authors would like to thank Alan Borst, Matt Ernst, Sierra Enlow, and Sara Williamson for their assistance with this project. The authors gratefully acknowledge the funding received from USDA-Rural Development. Ani Katchova may be contacted by e-mail at akatchova@uky.edu and Tim Woods may be contacted at tim.woods@uky.edu.

Local Foods and Food Cooperatives: Ethics, Economics and Competition Issues

Abstract: Consumer interest in locally produced foods marketed through local food networks has been increasing. Local food networks utilize local supply chains such as direct market sales to consumers through CSAs, farmers markets, farm stands, and other alternative outlets. Our goal is to examine the role of food cooperatives in strengthening the local food networks and distributing locally produced products. We utilize data from a national study which includes case studies with three leading food co-ops and a national survey of the general managers of food co-ops. We focus on analyzing the business strategies and competitive advantages of food co-ops sourcing local foods from local producers and marketing these local foods to consumers. We identify the emerging business practices, ethics principles, and competition issues for food co-ops with respect to sourcing and marketing of local products. Specifically, we provide a literature review on local food systems, examine local food definitions and recent trends for food co-ops, examine the business models and ethics principles for food co-ops, discuss the business strategies in sourcing and marketing of local foods by food co-ops, and examine the frequency and effectiveness of these business strategies to source and promote local foods. We show that when compared to other grocers, food co-ops have competitive advantages in working with local producers and often play a key role in the local producers' business viability.

JEL Codes: Q13.
Keywords: food cooperatives, local foods, competition, business strategies.

Introduction

The U.S. food system is characterized by two polarizing systems: the global corporate model and the local/regional food network. Under the global corporate model, the food retail sector has become increasingly concentrated with mainstream supply chains separating producers and consumers through a chain of processors/manufacturers, shippers, and retailers. On the other hand, local/regional food networks utilize “shorter” or local supply chains, particularly direct market sales to consumers through CSAs, farmers markets, farm stands, and other alternative outlets.

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 part of the more global sustainability movement. On the other hand, Lusk and Norwood (2011) have expressed some concerns about the economic viability of local supply chains as a sustainable business model, mostly because it violates the economic principle of comparative advantage (food should be grown in a location that is most productive and cheapest). Yet retail grocers, from the smallest to the largest, continue to seek various means to respond to a growing consumer demand for local products (NGA 2011). Food cooperatives, a small but active retailer segment with a highly localized consumer base, represent a unique class of retail grocers that present their own motivations and strategies for sourcing locally.

We present an economic analysis of how food cooperatives source and promote local foods based on a comprehensive study funded by a USDA-Rural Development (Katchova and Woods 2011). We conducted phone interviews with general managers of 10 food co-ops across the U.S. and visited with general managers, staff, and local suppliers of three leading food co-ops (Good Foods Co-op in Lexington, KY, Hanover Co-op in Hanover, NH, and La Montanita in Albuquerque, NM). We conducted a national survey of general managers for food co-ops to learn more about business strategies and competitive advantages related to sourcing and marketing of local foods. General managers discussed various strategies for procurement of local foods and building long-term supplier relationships with farmers. We further examined supply chain strategies food co-ops used to manage and assist farmers with production and planning activities and the subsequent competitive advantages/disadvantages of working with local farmers relative to other grocers in the same market area. We examined various merchandising approaches used by food co-ops as they sought to convey the messages about local foods to their buyer members and patrons, including advertising via labels, farmer photos and stories as well as organizing farmer-led sampling, on-site festivals, deli features, etc. The survey was mailed to 350 food co-ops across the U.S. in November 2010.

Our goal in this chapter is to identify the emerging business practices, ethics principles, and competition issues for food co-ops in relation to sourcing and marketing of local products. The specific objectives are 1) to provide a literature review on local food networks, 2) to examine local food definitions and recent trends for food co-ops, 3) to examine the business models and ethics principles for food co-ops, 4) to examine competition in sourcing and marketing of local foods by food co-ops, and 5) to examine the frequency and effectiveness of business strategies to source and promote local foods, analyzing whether food co-ops perceive themselves as having competitive advantages over other grocery stores. We show that when compared to other grocers, food co-ops have competitive advantages in working with local producers and often play a key role in the local producers' business viability.

Literature Review on Local Food Systems

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, *Animal, Vegetable, Miracle* (Kingsolver, Hopp, and Kingsolver 2007) and *In Defense of Food* (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 percent define local as made or produced within 100 miles, while 37 percent 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.

Two reports provide overviews of local food systems and compare them with the mainstream food supply chains. Martinez et al. (2010) explore alternative definitions of local food, estimate the market size and reach, describe the characteristics of local consumers and producers, and examine the benefits of local food markets in terms of economic development, health and nutrition, and food security. King et al. (2010) describe several case studies that compare the structure, size, and performance of local food supply chains with those of mainstream supply chains. For each of their cases, they consider degree of product differentiation, diversification of marketing outlets, and information regarding product origins and how they differ under the two supply chains.

The literature on consumer preferences for locally produced food is small but growing. 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. Hu, Woods, and Bastin (2009) examined consumer acceptance and willingness to pay for three nonconventional attributes associated with various value-added blueberry products, including whether the product was produced locally. Their results show that consumers have a positive willingness to pay for local even more than organic formulations 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 (Hu et al. in press). Nurse, Onozaka, and Thilmany (2010) used an attitude-behavior framework to explore the predictive ability of psychological concepts of willingness to pay for different attributes (including local and organic) associated with sustainable foods.

Other studies analyze how local food networks source and market local products. Two elements of the local food networks have been studied previously: farmers markets and community-supported agriculture (CSAs). Farmers markets consist of individual vendors (mostly farmers) who set up booths, tables or stands outdoors or indoors to sell produce, meat products, fruits, and other prepared foods. CSAs consist of individuals who purchase shares of a farm operation with weekly delivery or pick-up of produce, where the growers and consumers share the risks and benefits of food production. Hardesty (2008) and Brown and Miller (2008) have considered the economic impacts that farmers markets and CSAs have on the communities, consumers, and producers. Using case studies 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.

The role of food co-ops to supply locally produced products has only recently been examined. Liang and Michahelles (2010) survey 67 consumer co-ops in 13 Northeastern states to identify the strongest reasons for sourcing locally (environmental concerns, relationship with producers, ethical reasons, and aiding local economy), and the strongest barriers for sourcing locally (limited supply of local goods, complicated vendor relationships, and distribution and logistics). Katchova and Woods (2011) use a national survey of food co-ops to identify how food co-ops group into clusters based on their competitive advantages for sourcing local foods.

Our goal is to examine the role of food co-ops in strengthening the local food networks and marketing 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 including core, mid-level, and periphery consumers. The economic interactions that take place at food co-ops are combined with social interactions that make them valued community institutions.

Ethics Principles and Business Models for Food Cooperatives

Local food networks include organizations that produce, distribute, and promote locally produced products. While regional chain grocery retailers and restaurants may include locally produced products, it is food consumer co-ops, Community Supported Agriculture (CSAs), and farmers markets that are uniquely positioned in the local food networks and capable of placing greater emphasis on locally produced products, primarily by virtue of their smaller scale and focus on a limited geographic market. One of the key aspects to a “local” marketing program 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 length of the food supply chain increases, consumers’ cost of assessing the quality of food may increase. Conversely, local food networks have re-established a direct relationship between producers and consumers to increase the perceived 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 food co-ops to have a competitive advantage in scale, customer focus, and credible community orientation for locally produced products. Further, these local food supplier relationships tend to be developed over a long term and are management intensive to both build and maintain.

Food co-ops 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 co-ops are usually characterized by their strong support for natural and organic foods, community activities, environmental sustainability, and local food systems.

A food cooperative is a grocery store organized as a cooperative. Food co-ops are typically consumer cooperatives, meaning they are owned by their members, and typically feature natural and/or organic foods. Food co-ops adhere to the seven 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).

According to Deller et al. (2009), food co-ops have a distinctly different business organization than the more traditional grocery stores. 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. Investment in membership shares is considered a contribution to equity, while membership fees are usually treated as income. Consumer cooperatives are not required 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 be required 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 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.

Several key characteristics were revealed in our case studies conducted with general managers and other staff members in three leading food co-ops (Good Foods Co-op in Lexington, KY, Hanover Co-op in Hanover, NH, and La Montanita in Albuquerque, NM). Food co-ops have deeply ingrained within their membership and management a values-driven rationale for their commitment to build long-term local supplier relationships. Food co-ops claim to have an “authentic” commitment to local, meaning that they have always sourced and marketed local products, while this is a relatively recent trend for other food retailers. In addition, supporting the local community (especially local agriculture) is one of the seven principles and an end policy for food co-ops. Communities benefit from the multiplier effect when co-op members spend money on local products and keep them in the community. Other ways in which food co-ops are involved in the community include their support of farmers' markets and local fairs. Food co-ops are differentiated as businesses from other grocery stores through their local programs which have sustainable business models to sourcing local products. One fact that helps food co-ops to source local foods is the proximity of administration and ease of making decisions – department managers have the authority to make decisions and work directly with local producers. Another advantage that food co-ops have is that they are relatively small in size compared to other grocery stores, therefore, they have the ability to work with small producers; department managers are in frequent contact with a number of small producers and some co-ops even organize annual meetings for producers. Finally, food co-ops have a commitment to serve their members considering themselves as buying local products for their members, rather than selling local products to them.

Consumer cooperatives, and in particular food consumer cooperatives, have increased in importance. Over the past decade, it is estimated that about 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). The National Cooperative Grocers Association (NCGA) is a cooperative federation that includes 146 food co-ops.

Most of the food co-ops are relatively small compared to the chain grocers and supercenters, but they have been growing even through a recent difficult economic period. The median sales weekly sales were $466,011 per supermarket in 2010, which is equivalent to $24.2 million in annual sales per supermarket (Food Market Institute 2011). Katchova and Woods (2011) provide additional statistics on food co-ops with respect to recent sales, employment, and geographic distribution. On average, food co-ops are much smaller than the traditional grocery stores with $8,582,122 in annual gross sales and 39 percent of the sales to non-members. The annual gross sales for food co-ops have been increasing, reporting $6.7 million in 2007, $7.3 million in 2008, $7.8 million in 2009, and $8.6 million in 2010. The average number of employees and management full-time employees were 62 and the average number of members was 4,879 members in 2010. Most of the food co-ops are located in the Midwest (42 percent), the Atlantic region (31 percent), and the West region (15 percent) with a limited number of co-ops in the South and Plain regions.

Local Food Definitions and Recent Trends for Food Cooperatives

The term “local foods” has a geographic connotation but there is no consensus on the definition in terms of the maximum distance between consumers and producers in order for a product to be considered local. Definitions also vary based on the geographic region, organizations, consumers, and specific local markets. According to the 2008 Food, Conservation, and Energy Act (2008 Farm Act), local products are defined in two different ways: 1) by the locality or region in which the final product is marketed, so that the total distance that the product is transported is less than 400 miles from the origin of the product, or 2) by the state in which the product is produced. The concept of “local” is also often seen in terms of ecology – a foodshed, which is an area where food is grown and eaten. Generally, marketers have used the term liberally, causing some frustrations among consumers that rarely have the ability to understand the story behind the supplier.

Our national survey shows how food co-ops define local (Katchova and Woods 2011). While there is some variation across different parts of the country, general managers of food co-ops consider local products to be produced within 100 miles (the median of all responses) or 125 miles (the average). Also, 44 percent of the co-ops consider local to be produced in the state and additional 39 percent consider local to be produced in the region including neighboring states. In general, there is a considerable flexibility in defining the term “local,” even among the food co-ops themselves.

The percent of annual gross sales that comes from local products varies depending on the department (table 1). For example, the meat department has the highest percent of annual sales from local products (42 percent) whereas health/nutrition/cosmetics have the lowest (6 percent). Dairy products, fresh produce, and deli departments have about 30 percent of the annual sales from local products. About 21 percent of the annual gross sales for food co-ops are from local products store-wide. On average, food co-ops work with 8 dairy farmers, 22 fresh produce farmers, and 5 meat producers, although these numbers vary considerable among co-ops (table 2). The average for the number of local producers that food co-ops work with is 68. One of the major competitive advantages of food co-ops is their ability to work with a relatively high number of local producers when compared to other grocery stores.

The demand for local foods within food co-ops was noted to have been increasing over the last few years. About three-quarters of food co-ops indicate that there is a net increase in the share of local foods sold at their stores for meat, dairy, and fresh produce categories (table 3). Over a half of food co-ops report that there is an increase in the percentage of locally-produced packaged goods and health/nutrition/cosmetics products.

Competition in Sourcing and Marketing Local Products

There are two types of competition that arise when sourcing and marketing local foods. The first type of competition is among farmers to introduce new local products into the existing local food networks. The second type of competition is among food co-ops, other area grocers, and local food networks (CSAs, farmers markets, etc.) to introduce and market local products to consumers.

There are several barriers facing producers choosing to enter local food markets and establish a sustainable farm business (Martinez et al. 2010). Typically, there are capacity constraints for small farm businesses and lack of a distribution system for marketing local products through mainstream supply chains. Farmers also may have limited education and training in growing and marketing a variety of local foods. There may also be uncertainties with respect to regulations that may affect local food production such as food safety requirements. Interviews with local farmers delivering to food co-ops show that co-ops play an instrumental role in farm business start-up and/or its financial viability (Katchova and Woods 2011).

Food co-ops report the degree of competition when farmers plan on introducing new local products by different category of products: fresh produce, meat, dairy, and grocery products (table 4). The degree of competition reported is the perception of food co-op managers of how difficult it is for a farmer to break into the local food supply network. Only 11.6 percent of the food co-ops state that there is none or minor competition among farmers to introduce new local products for fresh produce, 28.5 percent report lack of competition for new local meat products, 22.8 percent for local dairy products, and 36.6 percent for local groceries. On the other hand, 33.3 percent of the food co-ops report significant competition among farmers to introduce new local products for fresh produce, 16 percent report significant farmer competition for local meat products, 5.2 percent for local dairy products, and 7 percent for grocery products. Therefore, the most significant competition among farmers is for introducing local fresh produce, while meat, dairy, and grocery producers face much lower competition to supply local products to food co-ops.

Food co-ops participate in local food networks together with farmers' markets, CSAs, and other retailers. Our interviews with general managers of several food co-ops across the U.S. and a focus group with members of the Good Foods Co-op in Lexington reveal that competition in the local food networks is viewed in a complex way. Typically, farmers' markets and CSAs are not viewed as competing but rather complementary outlets for providing more diverse local products. Because food co-ops follow the principle of supporting the local community, they often facilitate and support farmers' markets in their area. Retail stores (especially Whole Foods) are generally viewed as a competitors, mostly for total food dollars but less so for local foods. There is a general agreement among co-op members that the origin and quality of local products marketed by other groceries are less trusted.

Food co-op managers also reported their perception of how competitive their food co-ops are when competing with other grocery stores to introduce new local products. About 37.2 percent of the food co-ops identify significant competition from other area grocers for marketing fresh produce, 17.2 percent for meat, 16.9 percent for dairy and 11.6 percent for grocery items (table 5). Overall, two-thirds to three-quarters of food co-ops view grocery stores as providing somewhat to significant competition to introduce new local products; the rest of the co-ops perceive none or minor competition from other grocery stores in the area to introduce new local products.

Business Strategies and Competitive Advantages: Definitions and Concepts

The concept of competitive advantage is important in understanding business strategies and firm performance. Porter (1998) examines two basic types of competitive advantage: cost advantage and differentiation advantage. A *competitive advantage* is defined as an advantage a firm has over competitors by offering its consumers greater value, either by selling products at lower prices (cost advantage) or by providing greater benefits and service justifying higher prices (differentiation advantage). The goal of a business strategy is to achieve a sustainable long-run competitive advantage over its competitors and to enable the firm to create a greater value for its customers and superior profits for itself.

There are four general business strategies that firms can adopt in order to gain competitive advantage. These strategies are based on whether or not the scope of the business activities is focused or broad and also on whether or not the business aims to differentiate its products or concentrate on cost reduction. Differentiation and cost leadership strategies pursue competitive advantage in a broad market. On the other hand, differentiation focus and cost focus strategies are targeted in a narrow market (niche market).

More specifically, the *differentiation strategy* involves one or more criteria that consumers in the market demand and then positioning the business to uniquely meet those needs. This strategy is usually associated with delivering a differentiated product and charging a premium for the product, often because of either higher production costs or value-added features provided for consumers. The *differentiation focus strategy* aims to differentiate firm's products in a relatively small market segment. The special customer needs in a given market segment implies that there are opportunities for the business to provide products that are clearly differentiated from competitors who may be targeting a broader group of customers. The main issue for businesses adopting this strategy is to ensure that customers have specific and different needs and preferences and that the existing competitors are not meeting these needs and preferences. This differentiation focus strategy is the strategy typically pursued by food co-ops seeking to differentiate their products as healthy, organic, natural, local, etc. and market them to a select market segment of consumers who seek such attributes. Unlike healthy or organic products which can be produced anywhere, local products may be easier to differentiate because they need to be produced in a "local" area. Therefore, the "local" attribute of products may not be easily replicable by producers in "distant" areas.

On the other hand, the *cost leadership strategy* involves becoming the lowest-cost producer in the market. The main emphasis is placed on minimizing costs along the supply chain. If the prices charged for products are similar, then the best profits will be realized by businesses with lowest costs. This strategy is usually adopted by large-scale businesses (like Wal-Mart and other major retailers) that are offering "standard" products with relatively little differentiation at the lowest possible price. The *cost focus strategy* is implemented by businesses seeking a lower cost advantage in a small number of segments.

Business Strategies and Competitive Advantages for Sourcing Local Foods

Food co-ops primarily use differentiation focus business strategies to differentiate their products and market them to a specific segment of consumers. Specifically, food co-ops routinely pursue opportunities to build on differentiation strategies through their unique ability to maintain close working relationships with local producers. Food co-ops are able to implement these business strategies for several reasons: 1) food co-ops are smaller when compared to other grocers, 2) food co-ops make decisions locally at their store rather than at remote headquarters, 3) their business model allows for department managers to make decisions and maintain frequent contact with a large number of small producers, and 4) food co-ops have long-term experience working with local producers.

One set of business strategies that food co-ops use includes price negotiation, lower margins for local, quality negotiations, delivery/logistics coordination, and local merchandising material design. About 40 to 50 percent of food co-op general managers report frequent or extensive use of these business strategies and about the same percentages report competitive advantages using these strategies over non-cooperative grocers (table 6). One explanation is that many food co-ops are willing to use lower margins for local products or price negotiations, but in general other grocery stores are better positioned to compete on most cost minimization strategies than food co-ops who frequently use differentiation strategies. Fewer food co-ops report competitive advantages with respect to volume planning, packaging design, and food safety/quality assurance.

Another set of business strategies include promotional set of activities for farmers such as planning merchandising events and in-store farmer sampling. A third of the food co-ops report frequent or extensive use of these strategies while two-thirds of them report having a competitive advantage when compared to other grocery stores (tables 6). Food co-ops perceive these two strategies, planning merchandizing events and in-store farmer sampling, as their biggest competitive advantages over other grocers (as shown by the ranking of strategies in table 6).

A third set of business strategies include working directly with local producers on the farm production process, farmer assistance, and production planning. While these strategies are not as frequently used by food co-ops, many of the co-ops perceive that they have competitive advantages using them. Interviews with select local producers working with food co-ops indicate that food co-ops play an important role in helping them establish their businesses and making it sustainable and successful. Food co-op's support and promotion is essential for small producers who often struggle to compete with large producers because of economies of scale for conventional production. Food co-ops often educate new farmers about packaging of products, quality standards, food safety regulations, etc. Food co-ops are also involved with planning annual producer group meetings and organizing farm visits to gather information and coordinate logistics.

Overall, food co-ops state that they have a competitive advantage over non-cooperative grocery stores for sourcing local products and working with local farmers. The business strategies that also work well for their competitors include providing lower margin for local, volume planning, packaging design, assistance with farmer loans, and maintaining a vendor managed inventory. These competitive advantages are also found to differ based on food co-op size: smaller food co-ops tend to have more disadvantages while large food co-ops tend to have more competitive advantages in sourcing local products.

Business Strategies for Marketing Local Foods to Consumers

Marketing is the process which connects producers and consumers. Food marketing has four components, called the "four Ps" of marketing mix: product, price, promotion and place. When retailers decide what type of new foods to introduce to consumers, they develop either new food products or extend an existing food product. For products, brand loyalty and product attributes play an important role in consumer demand. Price is also an important component of marketing as retailers have some flexibility in charging variable price margins for different products. Promotion can be done in store, out of store, and on the package. Place refers to where products are located in the store, including end caps, top or bottom shelf, etc. Place is especially important in promoting products in the store.

Marketing strategies allow businesses to concentrate their limited resources on the greatest opportunities to increase their sales and achieve a sustainable competitive advantage over their competitors. Food co-ops use several marketing strategies to promote local products, including farmer photos and stories, food sampling, newsletters and social media, etc. The most frequently used promotion strategies include newsletters, social media/Facebook, and websites to disseminate information about local products, with over half of the food co-ops reporting frequent or extensive use of these strategies (table 7). Co-ops also provide staff training on local products, samplings, annual merchandising features, sponsorship of off-site local food events, on-site festivals, and deli features to increase consumer awareness of local foods. Other less frequently used strategies include point-of-purchase (POP) farmer photos, POP farmer stories, POP farm brands, and end caps or special displays. Overall, most food co-ops use these strategies to increase consumer awareness of local products and effectively promote them to consumers.

Selected general managers also provided additional insights on member preferences for local foods and the effectiveness of various promotion strategies. Consumers shopping at food co-ops are typically more educated and with higher income. They typically show concern about the origin and quality of food and are willing to pay a premium for these attributes. They have a greater social and community awareness and activism and desire to support local agriculture and community. Finally, the co-op members show loyalty to their food co-ops and provide feedback to food co-ops about their preferences.

Concluding comments

The ability of food co-ops to competitively supply locally produced products has only recently been examined even though the popularity of food co-ops has been increasing over time (Katchova and Woods, 2011). Food co-ops are 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. The economic interactions that take place at food co-ops are combined with social interactions that make them valued community institutions.

We identify the emerging business practices, ethics principles, and competition issues for food co-ops in relation to local sourcing and marketing of products. We provide a literature review on local food systems, examine local food definitions and recent trends for food co-ops, examine the business models and ethics principles for food co-ops, analyze food co-ops' business strategies in terms of frequency of use and effectiveness in sourcing and marketing of local foods.

The findings help food co-ops identify the business strategies that are typically most successful and have a competitive advantage in the procurement and promotion of local foods.

As a result, food co-ops will be able to develop better supply chain management and new cooperatives will be better aware of viable business models based on the characteristics of their local food networks. We show the key role that food co-ops play in the local food networks and the business strategies that are most successful in connecting local producers with consumers using the food co-op business model. We show that when compared to other grocers, food co-ops perceive to have competitive advantages in creating and promoting their relationships with local producers and often play a key role in the producers' business viability.

Our research contributes to the ongoing discussion about whether there is an adequate competition in the agrifood sector. We focus here on an under-studied player in the local food networks – food cooperatives – and how they perceive competition in the local food networks. Our findings show that there is an adequate competition along two dimensions: sourcing local products from farmers and competing with other retailers to market these products to consumers. Food co-ops report somewhat to significant competition among farmers to introduce new local products, particularly for fresh produce, meat, and dairy. Farmers generally do not feel locked out of alternative outlets for their production, but food cooperatives play an important role in their business' viability and success. In addition, food co-ops report somewhat to significant competition with other area grocers to introduce and market new local products to consumers, showing an adequate competition among retailers. We conclude that in the local food systems there is an adequate competition mostly along niche, highly differentiated markets and local supply chains.

References

Brown, C., and S. Miller. 2008. The Impacts of Local Markets: A Review of Research on Farmers Markets and Community Supported Agriculture (CSA). *American Journal of Agricultural Economics* 90, 1296-1302.

Darby, K., M.T. Batte, S. Ernst, and B. Roe. 2008. Decomposing Local: A Conjoint Analysis of Locally Produced Foods. *American Journal of Agricultural Economics* 90,476-486.

Deller, S., A. Hoyt, B. Hueth, R. Sundaram-Stukel. 2009. Research on the Economic Impact of Cooperatives. Madison, WI: University of Wisconsin Center for Cooperatives. http://reic.uwcc.wisc.edu/. Accessed 1 September 2011.

Food Market Institute. 2011. Supermarket Facts. http://www.fmi.org/facts_figs/superfact.htm. Accessed 5 October 2011.

Gillespie, G., D.L. Hilchey, C.C. Hinrichs, and G. Feenstra. 2007. Farmers Markets as Keystones in Rebuilding Local and Regional Food Systems. In C.C. Hinrichs and T.A. Lyson (eds.) *Remaking the North American Food System: Strategies for Sustainability*. Lincoln, NE: University of Nebraska Press, 65–83.

Hardesty, S.D. 2008. The Growing Role of Local Food Markets. *American Journal of Agricultural Economics* 90, 1289-1295.

Hartman Group. 2008. Pulse Report: Consumer Understanding of Buying Local.

Hu, W., M. Batte, T. Woods, and S. Ernst. In press. Consumer Preferences for Local Production and Other Value Added Label Claims for a Processed Food Product. *European Review of Agricultural Economics*, forthcoming.

Hu, W., T. Woods, and S. Bastin. 2009. Consumer Acceptance and Willingness to Pay for Blueberry Products with Nonconventional Attributes. *Journal of Agricultural and Applied Economics* 41, 47-60.

Katchova, A.L. and T.A. Woods. 2011. The Effectiveness of Local Food Marketing Strategies of Food Cooperatives. Selected paper, Agricultural and Applied Economics Association Meeting, Pittsburgh, PA, July 24-26.

King, R., M.S. Hand, G. DiGiacomo, K. Clancy, M.I. Gomez, S.D. Hardesty, L. Lev, and E.W. McLaughlin. 2010. Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains. Economic Research Report ERR-99. Washington, DC:

Economic Research Service, U.S. Department of Agriculture. http://www.ers.usda.gov/publications/err99/. Accessed 1 September 2011.

Kingsolver, B., S.L. Hopp, and C. Kingsolver. 2007. *Animal, Vegetable, Miracle*. New York: Harper-Collins Publishers.

Liang, K., and M. Michahelles. 2010. Exploring the Consumer Co-op as an Innovative Local Food Distribution Method: The Case of the Northeast. Selected poster, NAREA Workshop "The Economics of Local Food Markets," Atlantic City, NJ, June 15-16.

Lusk, J.L., and F.B. Norwood. 2011. The Locavore's Dilemma: Why Pineapples Shouldn't Be Grown in North Dakota. Library of Economics and Liberty. http://www.econlib.org/library/Columns/y2011/LuskNorwoodlocavore.html. Accessed 1 September 2011.

Martinez, S., M. Hand, M. Da Pra, S. Pollack, K. Ralston, T. Smith, S. Vogel, S. Clark, L. Lohr, S. Low, and C. Newman. 2010. Local Food Systems: Concepts, Impacts, and Issues. Economic Research Report ERR 97. Washington, DC: Economic Research Service, U.S. Department of Agriculture. http://www.ers.usda.gov/publications/err97/. Accessed 1 September 2011.

National Grocers Association (NGA). 2011. 2011 Consumer Survey Report. http://www.supermarketguru.com. Accessed 23 September 2011.

Nurse, G., Y. Onozaka, and D.D. Thilmany. 2010. Understanding the Connections Between Consumer Motivations and Buying Behavior: The Case of the Local Food System Movement. Selected paper, Southern Agricultural Economics Association Annual Meeting, Orlando, FL, February 6-9.

Pollan, M. 2008. *In Defense of Food*. New York, Penguin.

Porter, M.E. 1998. *Competitive Advantage: Creating and Sustaining Superior Performance*, 1st ed., The Free Press.

Table 1. Percent annual gross sales from local products for food co-ops

Category	Mean	Standard deviation	25% percentile	50% percentile	75% percentile
Meat	42.0	28.9	17.2	44.7	62.3
Deli	33.8	37.3	1.9	15.0	75.0
Dairy products	27.6	25.3	5.1	17.5	50.0
Fresh produce	27.2	20.6	11.2	21.0	34.8
Bulk	11.8	12.3	2.0	10.0	18.0
Packaged goods	10.0	11.9	4.2	5.0	12.0
General merchandise	9.1	14.2	1.9	5.0	10.0
Health/nutrition/cosmetics	6.0	5.4	2.0	5.0	8.1
Average for the store(s)	20.3	12.3	11.2	20.0	25.0

Table 2. Number of local grower-vendors working with food co-ops

Category	Mean	Minimum	Maximum	Standard deviation
Dairy products	8.3	0.0	35.0	7.7
Fresh produce	22.4	4.0	75.0	15.8
Meats	5.3	0.0	20.0	4.4
Total all products	68.1	7.0	350.0	72.5

Table 3. Percent change in local products sold within the various categories over the last 2 years relative to other products in the category

Category	Declined substantially	Declined somewhat	Stayed about the same	Increased somewhat	Increased substantially	Don't know	Net increase[a]
Meats	3.8	0.0	17.3	36.5	42.3	0.0	75.0
Fresh produce	1.6	1.6	15.2	45.7	35.5	0.0	77.9
Dairy products	0.0	1.7	22.4	43.1	32.7	0.0	74.1
Packaged goods	0.0	3.4	37.9	51.7	6.9	0.0	55.1
Health/nutrition/cosmetics	1.7	3.4	32.7	60.3	0.0	1.7	55.1

[a] The net increase is the sum of the percentages for increased somewhat and increased substantially minus the sum of percentages for declined substantially and declined somewhat.

Table 4. Perception of food co-op managers of how difficult it is for a farmer to introduce new local products, percent indicating level of difficulty.

Category	None or minor	Some but stable	Increasing but not significant	Significant	Don't know
Fresh produce	11.6	13.3	38.3	33.3	3.3
Meat	28.5	23.2	28.5	16.0	3.5
Grocery	36.6	40.0	13.3	6.6	3.3
Dairy	22.8	35.0	33.3	5.2	3.5

Table 5. Perception of food co-op managers of how competitive their co-ops are relative to competition from other area grocers when introducing new local products, percent indicating level of difficulty.

Category	None or minor	Some but stable	Increasing but not significant	Significant	Don't know
Fresh produce	25.4	8.4	23.7	37.2	5.0
Meat	34.4	10.3	27.5	17.2	10.3
Dairy	30.5	13.5	33.9	16.9	5.0
Grocery	36.6	15.0	30.0	11.6	6.6

Table 6. Business strategies for food cooperatives working with local producers: frequency of use and competitive advantages as compared to other grocers

Business strategy	Frequency of use[a]		Competitive advantages[b]	
	Percent co-ops reporting intensive use	Rank[c]	Percent of co-ops reporting advantages	Rank[c]
Price negotiation	39.0	7	45.8	10
Lower margin for local	49.2	2	36.8	12
Quality negotiation	49.1	3	50.8	8
Delivery/logistics coordination	53.4	1	57.6	4
Local merchandising material design	39.7	5	51.7	7
Volume planning	39.7	6	35.1	14
Packaging design	6.8	16	21.1	18
Food safety/quality assurance	35.6	8	33.9	15
Planning merchandising events	40.7	4	63.2	3
In-store farmer sampling	33.9	9	70.7	1
Local producer rights advocacy	12.1	13	54.7	6
New product development	8.8	15	35.7	13
Assistance with farmer loans	0.0	18	27.3	16
Farm production planning	23.7	11	46.4	9
Annual producer group meetings	17.9	12	57.1	5
Farmer co-op development	1.8	17	70.7	2
Vendor managed inventory	9.4	14	43.4	11
Farm visits	28.8	10	22.6	17

[a] Food co-op managers reported the frequency of use for various business strategies: minimal, occasional, frequent, and extensive. Intensive use is defined as the sum for the categories frequent and extensive.
[b] Food co-op managers reported the competitive advantages (5 categories: major disadvantage, slight disadvantage, no difference, slight advantage, major advantage) they perceive they have over other grocers when using these business strategies. Competitive advantage is the sum of slight advantage and major advantage categories.
[c] Rank was assigned after sorting the strategies from most to least in terms of frequency or competitive advantage and assigning ranks.

Table 7. Business strategies food co-ops use to promote local products to consumers

	Frequency of use[a]	
	Percent co-ops reporting intensive use	Rank[b]
POP farmer photos	41.7	6
POP farmer stories	36.7	8
POP farm brands	31.0	11
End caps or special displays	30.0	12
Samplings	55.0	3
Annual merchandising features	39.7	7
Cross merchandising	33.3	10
Farmer-led sampling	20.0	15
Newsletters	80.0	1
Social media/Facebook etc.	56.7	2
Website	48.3	5
On-site festivals	28.8	13
Deli features	28.6	14
Sponsorship of off-site local food events	36.7	9
Staff training on local products	50.0	4
Blogs	17.9	16

[a] Food co-op managers reported the frequency of use for various business strategies: minimal, occasional, frequent, and extensive. Intensive use is defined as the sum for the categories frequent and extensive.
[b] Rank was assigned after sorting the strategies from most to least in terms of frequency of use and assigning ranks.