

Perceived Benefits and Barriers to Local Food Procurement in Publicly Funded Institutions

Abstract

Community-Based Social Marketing is presented as a technique to add to Extension's community economic development toolbox by examining perceived benefits and barriers to local food procurement at publicly funded institutions. Data were gathered through 86 in-person interviews with representatives across the supply chain. The findings revealed that supporting the local economy and freshness were two benefits common across the supply chain. Distribution, supply, price, and habit were common barriers. Benefit-barrier analysis can aid Extension professionals in providing context, teaching business skills, recognizing opportunities, shaping institutional structures, accessing markets, and informing the development of Communities of Practice.

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Communities are increasingly looking at local agriculture and local food production as economic development opportunities (Sharp, Clark, Davis, Bean Smith, & McCutcheon, 2011). With local food organizations believing that they have reached the limits of scale in both supply and delivery (Friedmann, 2007), additional opportunities in the broader public institutional marketplace have been sought in an effort to "scale up" local sustainable food production.

In part to spur economic development in these markets, local food policies have been enacted at the federal, state, and municipal levels, and across the supply chain from restaurants, retailers, wholesalers, and public and private funded institutions (Bloom & Hinrichs, 2010; Day-Farnsworth, McCown, Miller, & Pfeiffer, 2009; Freidmann, 2007; Gregoire, Arendt, & Stohbehn, 2005; Izumi, Wright, & Hamm, 2010; Leopold Center for Sustainable Agriculture, 2011). Despite increased interest in local food systems, however, local food still remains a small share of the retail and wholesale markets (Low & Vogel, 2011). The consumer literature shows that while there is a desire to support local foods, local food purchasing occurs when there is an added benefit (Lerman, Schalack, & Austin, 2010). Local by itself is not a driver of purchase intention, but is a nice "add on" (Bloom & Hinrichs, 2010; Marenick, Gooch, & Felfel, 2010).

Few studies have examined the perceived benefits and obstacles of local foods at the retail, wholesale, and institutional levels. Those studies that have been completed have primarily focused on restaurants, schools, and farmers. Motivations and benefits reported by restaurant operators and foodservice directors were freshness; desire to increase fresh fruit and vegetable consumption; support for local farms, businesses, and communities; public relations; and ability to purchase small quantities (Martinez et al., 2010). Gregoire et al. (2005) found that farmer perceived benefits were similar to those in foodservice.

Benefits reported by farmers included support for local farmers, fresher food, fewer food miles, better quality food, and knowledge of food source.

Seasonality; the lack of a dependable market; price; on-farm processing; costs related to time and labor; market saturation; lack of marketing skills; and distribution have all been mentioned as barriers to local food procurement (Gregoire et al., 2005; Lawless, Stevenson, Hendrickson, & Cropp, 1999; Starr et al., 2003; Vogt & Kaiser, 2008). Bloom and Hinrichs (2010) identified three challenges faced by local producers and processors accessing conventional produce distributors. First, consumers and producers might not view conventional produce distributors as a market for local products. Second, specialty higher end retailers and restaurants in urban areas were willing to pay a premium for local products, but producers had difficulty getting a higher return in other retail, restaurant, and institutional establishments. Third, there was a common perception that local produce should be less expensive than imported produce because of lower transportation costs.

This article introduces and uses Community-Based Social Marketing (CBSM) techniques to provide Extension professionals with an additional community economic development tool. In this instance, the perceived benefits and barriers to local food procurement across the public institution supply chain are examined in order to help Extension professionals:

- A. Enrich the contextual understanding of this market
- B. Increase knowledge on how to access the marketplace
- C. Teach appropriate management skills
- D. Shape institutional structures.

A review of existing research suggests that Extension professionals interested in helping clients access these markets may not have enough pieces to provide context because previous research has tended to focus only on one part of the supply chain and in different geographic areas. Further, some parts of the supply chain such as foodservice management companies and distributors have been omitted from previous research.

This article intends to fill in contextual gaps and provide Extension professionals with a methodology that can provide information to increase access, teach producers to meet industry standards, and shape institutional structures. The end result is the development of a CBSM campaign by Extension professionals to increase local food purchasing intentions and fostering behavioral change at publicly funded institutions and among potential suppliers.

Community-Based Social Marketing

Community based social marketing (CBSM) differentiates itself from other marketing techniques by emphasizing a pragmatic approach to behavior change, which uses a hybrid mix of social psychology and social marketing (McKenzie-Mohr, 2000). It has been used primarily to influence environmental and health behaviors. A CBSM approach involves four steps:

- Identifying benefits and barriers to a sustainable behavior;
- Designing a strategy that utilizes behavior change tools;

- Piloting the strategy with a small segment of a community;
- Evaluating the impact of the pilot strategy after implementation (McKenzie Mohr & Smith, 1999).

This article focuses on the first step: conducting a benefit barrier analysis.

Methodology

In-person interviews were conducted with people responsible for food procurement at each point in the supply chain. The supply chain in this instance refers to people who procure food at publicly funded institutions (public schools; correctional facilities; hospitals and continuing care facilities; universities and community colleges), foodservice management companies, distributors, and suppliers. The project took place in Nova Scotia, Canada.

A specific interview guide was developed for each point in the supply chain. The institutional, foodservice management company, and distributor interview guides were essentially the same. The supplier interview guide was a condensed version of the other guides. To ensure the appropriate questions were asked to gather the necessary information, a draft interview guide was sent to an advisory panel for review and input. The panel consisted of one representative from each of the institutional sectors and each sector in the supply chain, with the exception of foodservice distributors, where feedback was solicited from two companies.

A snowball sample design was used to identify potential interviewees. A snowball sample is a non-random sampling procedure that relies on referrals from initial subjects to generate additional subjects. Initial contact lists were developed through government contacts and advisory group members. At the conclusion of each interview, respondents were asked to identify other people whom they thought should be interviewed. The sampling frame made an attempt to cover each geographical district, where appropriate. Interviews were conducted until the information became repetitive and little new information was provided, or there were no further interviewees identified.

A total of 86 interviews were conducted. The breakdown for each sector was as follows:

- Academic institutions: 15 interviews
 - 8 university dining halls
 - 4 community colleges
 - 3 university administrators
- Public Schools: 25 interviews
 - 17 school cafeterias
 - 8 School board administrators
- Correctional facilities: 6 interviews

- Hospitals and continuing care facilities: 13 interviews
 - 4 hospitals
 - 6 continuing care facilities
 - 2 buying groups
 - 1 production kitchen
- Foodservice management companies: 4 interviews
- Distributors: 9 interviews
- Suppliers: 14 interviews

Interviews were conducted mid April 2009 through December 2009 beginning with institutions, foodservice management companies, foodservice distributors, and then suppliers. Additional interviews were either held during this time period or in January 2010.

Respondents were asked open-ended questions about the benefits and barriers of procuring and/or handling local foods.

- In your opinion and experiences, what are the advantages of procuring and/or handling local or regional foods?
- In your opinion and experiences, what are the obstacles or challenges of procuring and/or handling local or regional foods?

A matrix was used to analyze benefits and barriers. The first column of the matrix lists the behavior that one wishes to change. In this instance, the behavior was to increase local food procurement. To meet this goal, there are behaviors that should be encouraged and ones that should be discouraged. The second and third columns represent the perceived benefits and barriers associated with local food procurement. Internal benefits and barriers are those that relate to the individual. External benefits and barriers are structural factors that may require change in order for the behavior to be more convenient (McKenzie Mohr & Smith, 1999).

This analysis also deciphered which benefits and barriers were common across sectors. To be common, a benefit or barrier had to have a similar meaning across sectors. For instance, if quality was mentioned as a benefit across sectors, but each sector conceptualized quality differently, it would not be considered common.

Institutional Analysis

The benefit-barrier analysis for publicly funded institutions revealed that there were commonalities among academic institutions, schools, correctional facilities, and healthcare institutions. As illustrated in Table 1, three perceived common benefits to all institutions were freshness of foods, support of local economy, and sustainability. Because local foods travel less distance, they were deemed to be fresher than imported

foods. Institutional procurement officers mentioned a desire to support the local economy by purchasing local foods. Local produced foods were viewed as more sustainable than imported foods, particularly in terms of food miles and reduced carbon emissions.

Convenience was common to health, school, and correctional facilities. Convenience referred to the institution's ability to get local foods when they need them quickly. Local foods were also perceived by health and academic institutions as having more flavor and taste. In season prices were viewed as a benefit by health and school procurement officers, who indicated that in season prices were often lower for local foods than for imported foods.

Three external perceived barriers were mentioned by institutional procurement officers: supply, distribution, and price. Supply has three different meanings. First, respondents indicated that the amount of foods produced in Nova Scotia is too small to meet demand. Second, Nova Scotia food production is mostly seasonal. Further, during the peak harvest season, schools and academic institutions are not in full session. Third, not all foods procured by public institutions are available locally; the variety of foods produced in Nova Scotia was viewed as limited.

Table 1.
Benefit-Barrier Analysis for Publicly Funded Institutions

Behavior	Perceived Barriers	Perceived Benefits
Encourage		<p>Common to all institutions</p> <p>External:</p> <ul style="list-style-type: none"> • Freshness • Support local economy • Sustainability <p>Common to health, schools and corrections</p> <p>External:</p> <ul style="list-style-type: none"> • Convenience <p>Common to health and academic</p> <p>External:</p> <ul style="list-style-type: none"> • Taste <p>Common to health and schools</p> <p>External:</p> <ul style="list-style-type: none"> • Price (in-season)
Discourage	<p>Common to all institutions</p> <p>Internal:</p> <ul style="list-style-type: none"> • Habit 	

	<p>External:</p> <ul style="list-style-type: none"> • Supply • Distribution • Price <p>Common to health and academic</p> <p>External:</p> <ul style="list-style-type: none"> • Quality assurance • Contractual obligations <p>Common to health, schools and corrections</p> <p>External:</p> <ul style="list-style-type: none"> • Space 	
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Respondents indicated that distribution of local foods was a barrier. It was mentioned that the consolidation of distributors has resulted in fewer locally owned distributors. Also, it is not efficient to have multiple deliveries to institutions, and there is a need for a more efficient and timely local food distribution system. While some respondents stated that local foods were price competitive when in season, it was suggested that local foods are often more expensive than imported foods.

While not mentioned by respondents directly, habit was an internal barrier to local food purchasing. Procurement officers told us that they ordered foods as they had done in the past or in the most convenient manner. Ordering had become routine. For most of them, purchasing local foods was not a priority or something they thought about when ordering food items.

Because healthcare and academic institutions were more concerned about liability than correctional facilities and schools, respondents at these institutions raised questions about quality assurance of local suppliers and their products. Quality assurance refers to food safety and verifiable standards. The perception was that local producers might not be third party certified; thus, imported foods might be more consistent and safer. Contractual obligations may also hinder the procurement of local foods for health and academic institutions. In particular, tendering processes and organizational structures make the procurement of local foods more difficult. Space or the capacity to store and prepare foods was also mentioned as a barrier by health, schools, and correctional facilities. Inadequate storage facilities and kitchens make it difficult for some facilities to purchase in bulk.

Industry Analysis

The benefit barrier analysis for foodservice management companies, distributors, and suppliers is presented in Table 2. It revealed that there were common benefits and barriers among them. Two internal benefits of local food procurement were customer service and a sense of community. In particular, local

suppliers are viewed as having greater flexibility than non local suppliers. Purchasing locally also seems to be a source of personal pride, as employees are able to network, support, and receive recognition in their local communities. Supporting local economies and the freshness of local foods were two common external benefits. The in season price of local produce was also mentioned as a benefit by foodservice management companies and suppliers. Sustainability, particularly lower carbon footprints and food miles, was viewed as a benefit by foodservice distributors and suppliers.

Table 2.
Benefit-Barrier Analysis for Foodservice Industry

Behavior	Perceived Barriers	Perceived Benefits
Encourage		<p>Common to industry</p> <p>Internal:</p> <ul style="list-style-type: none"> • Customer service/relationships • Sense of community <p>External:</p> <ul style="list-style-type: none"> • Freshness • Support local economy <p>Common to management and suppliers</p> <ul style="list-style-type: none"> • Price (in-season) <p>Common to distributors and suppliers</p> <ul style="list-style-type: none"> • Sustainability
Discourage	<p>Common to industry</p> <p>Internal:</p> <ul style="list-style-type: none"> • Lack of communication • Habit <p>External:</p> <ul style="list-style-type: none"> • Supply • Distribution • Quality assurance • Price • Policies, regulations and 	

	<p>practices</p> <p>Common to distributors and suppliers</p> <ul style="list-style-type: none"> • Marketing 	
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Eight common barriers that should be discouraged were identified. Lack of communication and habit were two internal barriers. All three industry sectors felt that their needs and requirements could be communicated better. In general, the process of food procurement across industry is habitual and routine. Buyers preferred to use the same suppliers and procure foods in the most time-effective way possible or the way it had been done in the past.

External barriers were supply, distribution, quality assurance, price, and policies, regulations, and practices. There was a feeling among all industry sectors that local supply is currently too low. Distribution problems focus on how to transport local products to foodservice distributors and institutions efficiently. For quality assurance, potential suppliers must be willing to meet the quality and food safety requirements of packers, foodservice management companies, and distributors. Further, the price of local foods must be competitive with imported foods. The policies, regulations, and practices created by government, institutions, foodservice management companies, and distributors must be more favorable to local suppliers. The lack of local marketing was cited by foodservice distributors and suppliers as a barrier.

Institutional and Industry Analysis

Two benefits of local foods were common across all industry and publicly funded institutions: freshness and support for the local economy (Table 3). Sustainability and in season prices were also perceived as benefits by multiple industry and institutional sectors. Supply, distribution, and price were perceived as barriers to local food procurement across all industry and institutional sectors. Further, habit was an internal barrier common to both industry and institutions.

Table 3.
Benefit-Barrier Analysis for Publicly Funded Institutions and Foodservice Industry

Behavior	Perceived Barriers	Perceived Benefits
Encourage		<p>Common to all industry and institutions</p> <p>External:</p> <ul style="list-style-type: none"> • Freshness • Support local economy <p>Common to multiple industry and institutions</p> <ul style="list-style-type: none"> • Sustainability • Price (in-season)

Discourage	<p>Common to all industry and institutions</p> <p>Internal:</p> <ul style="list-style-type: none"> • Habit <p>External:</p> <ul style="list-style-type: none"> • Supply • Distribution • Price <p>Common to multiple industry and institutions</p> <ul style="list-style-type: none"> • Quality assurance 	
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Conclusions

Community-Based Social Marketing (CBSM) was presented as a technique to add to Extension's community economic development toolbox. As local food production becomes increasingly viewed in economic development terms, Extension can serve a critical role in providing context, information, teaching business skills, and advising on institutional structures (Sharp et al., 2011; Weber, 1987). Extension may help identify markets, recognize opportunities, and provide information on how to access these markets (Grebner, Perez-Verdin, Henderson, & Londo, 2009). One method to accomplish these tasks is by developing a network of people to create Communities of Practice (Rodriguez, Traver, Eborn, & Dye, 2010). CBSM techniques, such as benefit-barrier analysis, provide additional tools to Extension in accomplishing economic development tasks.

Context

The benefit-barrier analysis locates a particular institution within the context of similar and different institutions, the supply chain and within the broader context of the local, regional, national, and global food system. A school, for instance, can be compared with how other schools in a local community, region, or state view local food procurement. The procurement process at schools can then be compared with other institutions and the foodservice industry in the supply chain. Rather than looking at one part of the supply chain in isolation, the benefit-barrier analysis provides Extension personnel with a visual map to better understand the commonalities and differences along the supply chain and the linkages among players in the supply chain.

The identification and comparison of barriers across institutions, the foodservice industry, and the supply chain can help Extension personnel to identify where intervention needs to occur. If the barrier is internal to an institution, the Extension agent can then focus on addressing how to overcome the barrier specific to that institution. If the barrier is external to that institution, more systemic responses might need to be proposed. The role of Extension in this case might be to identify the source of the external barrier and to

place it within a larger context. For example, is the barrier unique to the local community, region, state, or is it due to global forces?

Information

While the benefit-barrier analysis does not identify markets per se, it does identify commonalities within the supply chain, which can aid Extension personnel in helping producers access these markets. Identifying benefits and addressing barriers also can aid in recognizing opportunities for producers. Opportunities are recognized by looking for common benefits and/or alleviating barriers across the supply chain. If, for example, a school and other institutions view benefits of local foods in the same manner as foodservice management companies and/or foodservice distributors, there are perhaps opportunities for producers to market their products in these terms, leading to greater access to these markets.

There is also the potential to perhaps receive better pricing from institutions, food management companies, and foodservice distributors because of perceived or additional value. For instance, if local does not in itself have added value, farmers might be able to receive higher prices for a food product that is produced sustainably or is fresher. The identification of barriers is the first step in proposing ways to alleviate them. Extension can take a lead in conducting research on identifying the factors behind the barriers and proposing and assessing potential solutions. Key messaging can be tailored to specific sectors of the supply chain by farmers to increase sales to institutions, foodservice management companies, and distributors. Farmers, for example, can highlight the convenience of purchasing local foods to hospitals, schools, and correctional facilities.

Business Skills

A role of Extension is to enhance the skills of their clients. The benefit-barrier analysis identified that quality assurance was a barrier to local food procurement. In this instance, there is an opportunity for Extension personnel to help producers develop quality assurance programs to meet industry demands.

Institutional Structures

Weber (1987) stated that Extension has a role in shaping the institutional structure of economic development. Policies, regulations, and practices were identified as barriers to local food procurement by the foodservice industry, and contractual obligations were identified by academic and health institutions. In these instances, the institutional structures have limited local food procurement. Extension personnel can analyze innovative institutional ideas to address contractual and regulatory barriers at different levels of the supply chain.

Community of Practice

The benefits-barrier analysis revealed that there were common barriers across industry and institutions. The alleviation of some of these barriers, such as distribution and supply, may require innovative ideas and the assessment of alternatives. Further, these types of barriers are complex, and an effort to address them requires expertise along the supply chain. The development of a Community of Practice holds the promise of addressing external and/or systemic barriers and enhancing benefits by bringing together staff from institutions, foodservice management companies, distributors, suppliers, and others. Extension's role can be facilitate this process and provide expertise where relevant.

Research to Action

A 2-day forum was held in conjunction with the project reported here to bring together staff from across the supply chain. Panel sessions were held with each part the supply chain, so that suppliers and producers could better understand how procurement is conducted. An institutional staff panel focused on how they incorporate local foods into their procurement process. Guest speakers offered their experiences and alternative models for local food procurement. The forum also provided an opportunity for networking and initiating discussions on how to take advantage of common benefits and how to address barriers to local procurement. The hope was that staff across the supply chain would continue to network and work together to promote local food procurement.

A benefit-barrier analysis is the first step in designing a CBSM campaign (McKenzie Mohr & Smith, 1999). Our recommendation based on the research reported here was to increase demand for local foods through institutional buyers. It is our belief that once this demand is fostered, there will be incentives for the foodservice industry, institutions, and suppliers to address the barriers to local food procurement. This information enables Extension professionals to focus on a particular player along the supply chain to induce behavioral change. With this in mind, the benefit-barrier analysis provides a useful tool to foster demand at institutions by discouraging internal barriers, working to address external obstacles, and promoting the benefits of local food procurement.

A CBSM campaign might include the following to foster demand by focusing on the benefits and overcoming barriers associated with local foods.

- Develop a buy local pledge sheet for institutional procurement officers and administrators and the foodservice industry.
- Distribute materials to act as reminders to foodservice staff when they are ordering or purchasing foods. These materials might include fridge magnets, sticky notes, pens, and stickers to remind foodservice staff to look for and ask about local food products when purchasing foods.
- Work with all institutional sectors to develop standard procurement practices, where feasible.
- Initiate and evaluate local food pilot programs at publicly funded institutions and for industry.
- Encourage the development of seasonal menus and meals from scratch at publicly funded institutions.

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