Understanding Markets and Marketing Strategies, and Challenges in the Locally Grown Fresh Produce Industry

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Abstract
Existing literature on locally grown food systems is extensive and spread. Navigating it can be tedious. This study uses an exploratory research approach to identify common findings and recommendations, and propose priorities, key variables, and relationships for future studies. Findings show that local food marketing through farmers’ markets and Community Supported Agriculture and the benefits of local food systems to local economies (found to be an on-going debate) dominate the literature heavily. Prior studies commonly reported enthusiasm for locally grown fresh produce, but present diverging results about significant consumer characteristics. Studies regarding marketing decisions among food growers/marketers, local foods supply chains, online markets for local food products, and the use of marketing mix tool are relatively limited. This study is helpful to researchers by directing their activities towards addressing major gaps. In addition, this study facilitates growers/marketers—especially those who are interested in implementing research-based recommendations—by providing a complied one-stop point of information. Likewise, stakeholders including community-based organizations and policy makers will find this study beneficial to their involvement in the industry.

Introduction
Locally grown food systems attracted great attention among researchers in this field. In 2008, Brown and Miller, (2008) reviewed several articles with a focus on studies conducted between 2000 and 2008 to examine effects CSA programs and farmers’ markets have on farmers, consumers, and communities. Since this review, several studies continue shaping the discussion about local food marketing movement. Unlike Brown and Miller’s review, this paper goes beyond CSA programs and farmers’ markets to include those studies that were conducted on local food supply chain involving middlemen. While their review included studies done outside the United States, this study is limited on studies conducted within. Using an exploratory research approach, this review sought to identify common findings and recommendations, and propose priorities for future studies. This study is helpful to researchers by directing further research activities towards addressing major gaps and testing hypothesizes identified in this study. In addition, this study facilitates growers/marketers—especially those who are interested in implementing research-based recommendations—by providing a complied one-stop point of information. Likewise, stakeholders including community-based organizations and policy makers will find this study beneficial to their involvement in the industry.

Methodology
Using an online-based search, we reviewed articles whose publication dates fall between 2008 and January 2016. Unlike Brown and Miller, (2008), we limited our search on those studies conducted in the United States. We searched for publications in three online catalogues: AgEcon Search, Science Direct, and Web of Science) to find peer-reviewed articles keywords: local food marketing, direct-to-consumer, and local food supply chain. These keywords allowed us to only retrieve articles that are relevant to our theme. Our search produced 215 articles; which included
those published prior to 2008 and/or conducted outside the U.S. Scanning through these articles, we considered 45 that we deemed current (after Brown and Miller’s review conducted in 20108) and relevant. We only retained those that are crucial in understanding marketing channels for locally grown food products. We grouped the articles in four categories (local food movement, farmers’ markets, community supported agriculture programs, and local food supply chain) on the basis of their major contents.

**Local food movement**
The definition of local varies between consumers. According to Conner et al., (2010) consumers believed local crops must be grown within 100 miles of the market or in the state the market is located in. Darby et al., (2008) investigated the extent that people use the word local, what the geographical borders of how far is local and the value consumers place on local food production and showed that consumers put the same value on local from their state as they did on local from the same county. Conner et al. (2010) examined consumer’s perception towards local food items at farmer’s markets. The study suggested that farmers’ markets vendors who claim to have locally grown fresh produce should sell produce that is grown within 100 miles of the farm or in the state of which the market is located. In the view of the U.S. Congress, locally grown food products are those sold within 400 miles of their origin, or within the state of its origin (Hand and Martinez, 2010). It can be deducted that the common denominator in the meaning assigned to the locally grown food products is being grown within the state of the consumer.

Local food marketing channels are classified into two types: Direct-to-consumer (DTC) markets and intermediated marketing channels (IMC). In direct-to-consumer markets, producers/farmers market and sell to final consumers in face-to-face market settings/arrangements such as farmers’ markets, roadside stands, pick-your-own, on-farm stores, and community supported agriculture programs. Intermediated marketing channels consist of all marketing opportunities in the local supply chain that are not farmer-to-consumer transactions. Examples are: farmers selling to grocers, restaurants, food hubs, and food service operations of schools, hospitals, prisons, military facilities, and other institutions.

Gracia et al., (2012) investigated consumers’ willingness to pay and reported that consumers are more willing to pay a premium for local foods with social influences being a significant determining factor. Social influences positively affect women but negatively affect men. In addition, Onozaka et al., (2011) analyzed the differences between sustainable claims and location claims and found out that locally grown is the highest value claim and that carbon-intensive locally grown products are more deeply discounted than other products. Bingen et al., (2011) used focus group discussions to explore systems that help to cope with the struggles involved in eating local foods and reported a major focus on changing shopping, cooking, storing and eating habits in favor of local food products. It was agreed upon by the groups that it was not easy to change all of these things but once they did they felt empowered by their change.

Racine et al., (2013) examined the characteristics of local shopping of families with children in North Carolina and reported that out of the consumers interviewed about half buy local foods. Buying local was more likely among white families, poor families, and families living in rural areas. These results can be beneficial in knowing who to target for buying local. Zepeda et al., (2012) conducted an online survey study the characteristics and motivations of food shoppers and indicated that intrinsic values are important in deciding if a consumer will shop for local/organic foods or not. Regulations were also found to be important in deciding
where to get their local and organic foods. Major direct-to-consumer market channels for locally grown food products consist of farmers’ markets, community supported agriculture programs, farm stands, and usual supply chain. Next sections contain a review of studies conducted to better understand local food marketing system.

Farmers’ Market outlets
Abello et al., (2012) used in-person survey data from consumers at two farmers’ markets locations to determine key factors impacting the frequency of consumer monthly visits to Texas farmers’ markets. Their results showed that travel distance, number of adults in the household, market promotional characteristics such as entertainment and education activities, food events, as well as education and age were all determinants of frequency of visits to farmers’ markets. Consumers attend farmers’ markets for various motivations but the primary reason for their attendance is to purchase fresh produce (Gumirakiza et al., 2014) with 78 percent chance. This market outlet allows for connection between consumers and farmers, making it possible for the former to know the farmer on a personal basis, be able to gather all information, ask questions that relate to the produce being purchased, and learn different ways to cook the produce they purchase (Berberich, 2015).

Zepeda, Reznickova, and Lohr (2014) investigated the impact of mobile farmers’ markets on food choice in areas considered food deserts/communities with little access to fresh food. They concluded that consumers who shopped at the mobile market consumed more fruits and vegetables significantly. Freedman et al., (2014) examined the influence of an intervention to increase fruit and vegetable purchases at farmers' markets on revenue trends at a farmers' market located at a federally qualified health center in rural South Carolina. By comparing revenue trends for 20 weeks before the intervention in 2011 and 20 weeks after in 2012, they showed that most participants were female, African American and that the use of all forms of food assistance at the farmers' market increased significantly after the intervention with Senior FMNP vouchers and SNAP usage increased. They concluded that interventions that provide incentives to recipients of food assistance programs at farmers' markets are a viable strategy for increasing food assistance usage and revenue.

Racine et al., (2010) explored farmers' market use among Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) participants and the effects of previous Farmers' Market Nutrition Program participation on farmers' market use. They indicated that commonly reported barriers were lack of farmers' markets close to home and lack of transportation to farmers' markets. Women who received and redeemed Farmers' Market Nutrition Program vouchers were much more likely to purchase fruits/vegetables at farmers' markets. Krokowski, (2014) studied nutritional benefits of adding EBT machines to farmers’ markets and reported that the machines stimulate additional purchases of fruit and vegetable among recipients of Supplemental Nutrition Assistance Program. Obadia at al., (2013) investigated the impact of fruit and vegetable consumption among farmers’ market/non-farmers’ market clients that participate in the SNAP program and concluded that when consumers choose to shop at the farmers’ market, they consumed more fruits and vegetables than those that chose
not to do their shopping at farmers’ market. Their study also indicated that many of the SNAP participants do not shop at farmers’ markets because they don’t know the locations of the markets.

Onken et al., (2011) run a choice experiment at farmers markets to determine the willingness to pay based on organic, natural, locally grown produce. The study showed that shoppers at farmers’ markets would like to see more organic produce being brought at the markets. Racine et al., (2013) indicated that consumers were more likely to buy local foods if they were a white family, a low-income family or a family living in a rural environment. Their study showed that the most important preferences were quality and freshness. Many consumers believed that prices were lower and quality was higher at a farmers market. Adams and Adams (2011) found strong evidence that farmers’ market shoppers are, on average, willing to pay much more for local produce.

Pugliese et al., (2013) used face-to-face survey data from farmers’ markets to analyze the differences between local and organic foods as seen by organic food consumers. Their results show that the local/ traditional foods are not as trusted as the organic foods so there is a negative attitude between the local and organic foods. The younger and wealthier consumers seemed to integrate local and organic foods more. The farmers markets created more of a positive image integrating local and organic foods. Megicks et al., (2012) conducted a focus group discussion and an online survey to examine purchasing intentions of consumers, the drivers, and barriers to local food buying. Their findings showed that the ethical sustainability dimension of farmers markets affect consumers buying behavior negatively.

Using data from survey distributed to urban and rural farmers market attendees; Alfonso and O’Neill (2011) explored the wants and needs of visitors within the farmers markets. The results showed that with both types of markets visitors wanted extended seasons, more vendors and a better variety of products. With both markets the consumers had a need for local and fresh products. George et al., (2011) argued that farmers' markets in the United States are increasingly viewed as one facet of the solution to national health problems and that establishing markets on medical center campuses can augment a medical center's ability to serve community health. They provided a qualitative description of the process of starting a seasonal, once-a-week, producers-only market at the Pennsylvania State Hershey Medical Center, and we call for greater public health attention to these emerging community spaces.

Kraschnewski et al., (2014) indicated that there were approximately 100 farmers' markets operate on medical center campuses. In their study, the farmers’ markets reported serving 180-2,000 customers per week and conducting preventive medicine education sessions and community health programs. Customers in the study were similar in socio-demographic characteristics--most were middle-aged, white, and female. Ruelas et al., (2012) found out that customers were high satisfied with the farmers' markets in each community and the majority reported positive changes in physical activity and eating behaviors since using the market. Many consumers reported they wanted to see additional items sold at the market, including prepared foods, non-food items and other products not allowed to be sold at certified farmers' markets.
Jilcott et al., (2014) conducted cross-sectional surveys with a purposive sample of farmers' market customers and a representative sample of primary household food shoppers in eastern North Carolina and the Appalachian region of Kentucky. Their findings posited that fruit and vegetable consumption was associated with farmers' market shopping and that the frequently reported barriers to farmers' market shopping were market days and hours, "only come when I need something", extreme weather, and market location.

Hu et al., (2012) conducted a study about consumer preferences in Kentucky and Ohio to evaluate the willingness to pay for food products and reported that consumers are willing to pay more for a product that is locally produced, produced in the state or a well-identified multi state region. Consumers are more willing to purchase organic products and support small family farms. Likewise, Wixson et al., (2012) examined how the importance that consumers place on whether specific foods are locally produced affects the likelihood to shop at specialty food stores and farmers’ markets and found that there were several products for which a high percentage of consumers find the local production of that product important. Consumers with interests in locally produced fruits and vegetables were found to be more likely to shop at specialty food stores and/or farmers’ markets.

**CSA Program marketing channel**

Curtis et al. (2015) examined the impacts of Community Supported Agriculture (CSA) program participation on consumer attitudes and behaviors related to food consumption and preparation, among CSA members in Utah and realized that shift in participant dietary intake and food preparation attitudes and behaviors, namely increased consumption of fresh produce, decreased grain intake, and fewer meals consumed away from home. Tropp (2013) indicated that CSA programs were first established in U.S. in mid-1980s with 2 operations. The number of active CSAs as of January 2012 was reported to be more than 4,500. Brown and Miller, (2008) defined a CSA program as a marketing strategy where consumers buy “shares” in a farm before planting season begins to receive of portion of whatever is grown each week.

Bougheraraa et al., (2009) said that CSA programs unite farmers and community members through a sustainable partnership that involves the direct sale of farm produce through weekly pre-paid baskets during the growing season. Meyer, (2012) presented four core competencies of CSA programs: relatedness with consumers, a perceived superiority of products, the sharing of a complete experience of a farm, and the employment of sustainable agricultural practices. Conner et al., (2010) and Curtis, (2012) indicated that the CSA programs are proved to be one of the viable networking and direct marketing approaches that offer benefits to both farmers and consumers.

Using data on the prices and attributes of 188 CSA farms spanning Ohio and Pennsylvania, Connolly and Klaiber, (2012) found that a willingness to pay of approximately 9% for organic branding compared to natural, which translates into an additional $48 per summer season share. They also found a statistically significant premium associated with longer seasons, delivery, and the provision of additional products beyond fruits and vegetables. Curtis et al., (2013) showed that CSA participants are primarily highly educated females at average income
levels with health and food safety concerns. CSA subscribers were found to be willing to participate in recycling and home gardening activities, and support local farmers by purchasing fresh local foods. The study also concluded that there is a shift in food preparation habits as CSA membership led to increased consumption of meals at home and storage of food items. Quandt et al. (2013) conducted a study to investigate the feasibility of using a community supported agriculture program to improve fruit and vegetable inventories and consumption in an underresourced urban community. They provided a weekly CSA box for 16 weeks to fifty low-income women with children and found increases in the quantity of fruits and vegetables together with consumption of fresh produce. However, they tested for changes in consumption of fruits and vegetables and found that they were not statistically significant.

Woods and Troppy, (2015) explored the strategic positioning of CSAs in the changing food market and draws on descriptive summaries of observations from a survey of CSA managers to document specific trends in adaptations to the CSA business model. They indicated that farmers have adapted the CSA model as one of the ways to keep their shareholder community engaged. They suggested that adapting the CSA model to allow more products, share types, and multi-farm collaborations with lower transaction costs and scale economies allows farms to better connect with core and even mid-level local food consumers compared to other competing intermediated models. Diamond and Barham, (2011) argued that food value chains have emerged to incorporate strategic coordination between food producers, distributors, and sellers in pursuit of common financial and social goals. They recommended that nonprofits and cooperatives both can play key roles in value chain development.

Local Food Supply Chain
The literature regarding supply chain in the local food movement is dominated by studies on Grocery stores had varying definitions of the word local based on the size of the grocery store. The bigger the store the more broad the definition of local is (Dunne 2011). Blanch et al., (2011) analyzed data from a subset of respondents to determined associations between primary grocery shoppers’ region and sociodemographic characteristics and frequency of purchasing fruits and vegetables in the summer from farm-to-consumer venues. A little more than one-quarter (27%) of grocery shoppers reported a frequency of at least weekly use of farm-to-consumer approaches. Older adults and respondents who live in the Northeast were most likely to shop farm-to-consumer venues at least weekly, and no differences were found by sex, race/ethnicity, education, or annual household income.

Matson and Thayer, (2013) commented on the role of food hubs in food supply chain and indicated that logistical aspects of creating a local supply chain are numerous and warrant further study. According to this commentary, local food hubs have been a major vehicle for addressing several of these aspects in a positive way. Woods et al., (2013) noted that business and market structure are rapidly changing all along the local food supply chain across Southern region in an effort to shorten the food supply chain and increase locally grown food supply and quality. Matson, Sullins, and Cook (2013) investigated the role of food hubs in local food marketing and reported that the intended benefits for some community-based food hubs include extension to a
social good, environmental stewardship or capacity building for a group of agricultural producers. They also indicated that although food hubs still handle a small share of total food sales in the regions where they operate, they are able to reach a customer base that is typically far larger than that served by direct markets such as farmers markets and CSAs.

Feenstra, Visher, and Hardestry, (2011) studied five values-based supply chains in the California produce industry to draw out insights, best practices and conclusions. They indicated that supply chain networks require that all partners in the chain work together to optimize value for everyone and maintain transparency throughout the supply chain by sharing information at each stage of the chain. One of their most interesting findings is that while there are real differences among the supply chains in how values are connected to the product as it moves, the values themselves are the same—restaurant chefs, institutional buyers, grocers and retail customers want to know the story of the farm, its scale, how far away it is, and whether the production practice is sustainable or organic. Hand (2010) highlighted that farms in local food supply chains maintain a diverse portfolio of products and market outlets, which may help defray large fixed costs across multiple revenue streams and that local food supply chains are more likely to provide consumers with detailed information about where and by whom products were produced.

Concluding remarks

Since 2008, the majority of studies looking at local food marketing industry focused on some direct-to-consumer market channels (farmers’ markets and CSA programs); leaving intermediate market channels less investigated. Many studies were conducted looking at the willingness to pay for local foods and organic foods. While CSA consumers are more concerned about the getting connected to the farm, knowing food growers and supporting them, farmers’ market consumers are more concerned about a product being local and fresh. Grocery store consumers care more about food miles than the other categories of consumers. Future studies should investigate marketing decisions among food growers/marketer, the use of marketing mix tool, and online markets for local food products. There were not any studies showing why consumers were driven to shop at one market type over another. Hence, a study addressing this topic would be helpful. It could be examined as to if it was for social reason, demographics, market attributes, convenience, or/and any other reasons. It would also be interesting to document determining factors for using roadside stands, pick-your-own, and on-farm stores as direct-to-consumer market channels.

References


