



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



*Journal of Food Distribution Research*  
Volume 46 Issue 2

## **CSAs and the Battle for the Local Food Dollar**

Timothy A. Woods<sup>ⓐ</sup> and Debra Tropp<sup>ⓑ</sup>

<sup>ⓐ</sup>*Professor, Department of Agricultural Economics, University of Kentucky, 402 Charles E. Barnhart Bldg., Lexington, Kentucky, 40546-0276, USA Phone: 859-257-7270 Email: [tim.woods@uky.edu](mailto:tim.woods@uky.edu)*

<sup>ⓑ</sup>*Branch Chief, Local Food Research and Development Division, USDA Agricultural Marketing Service, 1400 Independence Avenue, SW Room 4509-S, Washington, DC 20250, USA Email: [debra.tropp@ams.usda.gov](mailto:debra.tropp@ams.usda.gov)*

---

---

### **Abstract**

The Community Supported Agriculture marketing model has evolved from its early roots, adapting to both increases in local food demand and consumer market engagement as well as to expanded competition for the local food dollar from a variety of other direct-to-consumer and intermediated sources. This paper explores the strategic positioning of CSAs in the changing food market and draws on descriptive summaries of observations from a recent survey of CSA managers to document specific trends in adaptations to the CSA business model. An application of the transaction versus alliance marketing framework is applied to local food distribution alternatives and opportunities for differentiation. CSA managers generally are aware of alternative channels for local food but primarily point to other CSAs and farm markets as the closest competition.

**Keywords:** Community Supported Agriculture, supply chains, business models, local food marketing

---

<sup>ⓐ</sup>Corresponding author

## Introduction

Local food demand has impressively expanded in almost every market channel that sells food. State branding programs have emerged in tandem with various other promotional strategies to convey the credence characteristic of local product origin to consumers that are increasingly expressing an interest in local identification. The annual National Grocers Association 2014 Consumer Report (National Grocers Association 2014) reported a fifth consecutive year increase in the proportion of national grocery shoppers selecting their primary grocery store for “offers locally grown produce and packaged goods” as “very important”, now at 44.2%. The growth in farmers markets has been well documented (Diamond and Barham 2012, USDA Ag Marketing Service 2015), further reflecting a growing interest in local food. A recently released ERS report highlights USDA Census data on direct-to-consumer and intermediated sales of local foods, confirming growth in sales across various channels but also noting a strong role for intermediated market (Low et al. 2015).

The growth in interest in local food has stimulated research about the local food consumer with particular emphasis on identifying the heterogeneity of the preferences and motivations of the local food consumer (Adams and Adams 2011, Bond et al. 2009, Gumirakiza et al. 2014, Nie and Zepeda 2011, Williamson et al. 2012, Zepeda 2009; and, Zepeda and Li 2006). Strategic marketing has been carried out with a view to engaging various subsets of these “locavore” consumers (Hartman Group 2008, Stanton et al. 2012), a close connection to the Lifestyle of Health and Sustainability (LOHAS) market segment and pursued by natural food retailers like Whole Foods with strategies for core, mid-level, and periphery consumers (Wells and Haglock 2008). The growth in the local foods market has not been lost on food retailers in almost every retail and foodservice market channel. Retailers, as Wells and Haglock note, recognize these core consumers are demanding, but are less price sensitive, loyal, and are leading influencers in their own social circles.

Community Supported Agriculture (CSA) has been around for many years as an alternative marketing model for local food. This subscription-based model has tended to emphasize organic or sustainable production, shared risk through pre-paid season-long shares, and even a variety of on-farm activities where shareholder consumers would contribute labor or at least pick up at the farm in order to lower production and transaction costs. As CSA has expanded in use as a business model for farmers, it has also had to adapt to changing customers, technology, and competition. Growth in the utilization of the CSA model nationally has been documented and discussed in several places (Galt 2011, Galt et al. 2012), including some of the measurement and definition challenges. This has become even more complicated in recent years with wider utilization of subscription, home delivery, multi-farm aggregation strategies for direct marketing, and the ubiquitous emerging food hub concept (Matson and Thayer 2013).

Various surveys of CSA managers help us appreciate the changes that have taken place even over the last 15 years. One of the earlier efforts to survey CSA operations was conducted in 2001 (Lass et al. 2003) that characterized CSA operations as small (median of about 15 acres, about 80 full share equivalents), independent operations that depended substantially on interns and members for labor, 43% were certified organic – over 90% some combination of certified organic, organic, or biodynamic, and substantially viewed the CSA as a means for improving

their community involvement. Later surveys of CSA operations suggest managers were becoming more sophisticated in their business management practices (Woods et al. 2009), using a wide variety of distribution strategies for both single and multi-farm models (Galt et al. 2012), and e-commerce strategies for payment and distribution logistics (Huntley 2014).

CSA shareholders, following recent CSA demographic surveys (Bregendahl and Flora 2006; Pole and Gray 2012), closely reflect the values and influence demonstrated among core LOHAS group highlighted by Wells and Haglock. Still, this CSA consumer community is becoming an even more diverse consumer group reflecting what has been observed on local food consumers in general. Farm-based CSAs and other direct-to-consumer venues, wholesale distributors focusing on local consumers, and other food retailers looking to capture part of the market share are increasingly competing with each other while trying to build on their own business core competency.

Strategic reach considers the core competency of various firms competing for the local foods consumer. Each firm has its own unique capabilities and strategies and reaches to gain market share by building on a value proposition. Local food buyers and CSA shareholders within various models, exhibiting varying degrees of price sensitivity, motivations for wanting local food (or food community engagement), and varying degrees of access can be organized into the core-midlevel-periphery segments suggested by the Hartman Group (2008) and Wells and Haglock (2008).

One way to consider this idea of strategic reach by firms for the local food consumer (including those engaged at some level with CSA) is to think about the transaction-based versus alliance-based supply chain management approach suggested by Ross (1999). A useful contrast in strategic approach is summarized from Ross in Table 1. This contrast in strategic reach or approach can be readily applied to the grocery community on the transaction-based end (marketing strategies employed with firms oriented to building transaction frequency and volume) to the single farm-based CSA on the alliance end (oriented toward building more value through fewer, closer customer relationships). The CSA model has traditionally distinguished itself from other retailers as highly engaging, building on relationships, information, and shared values that substantially drive grower and shareholder decision making. This presumably creates a competitive advantage for the CSA seeking to engage the core local food consumer that is pursuing a complex bundle of attributes nuanced by local foods researchers earlier.

**Table 1.** Ross' Transaction-Based vs Alliance Based Market Management Strategies

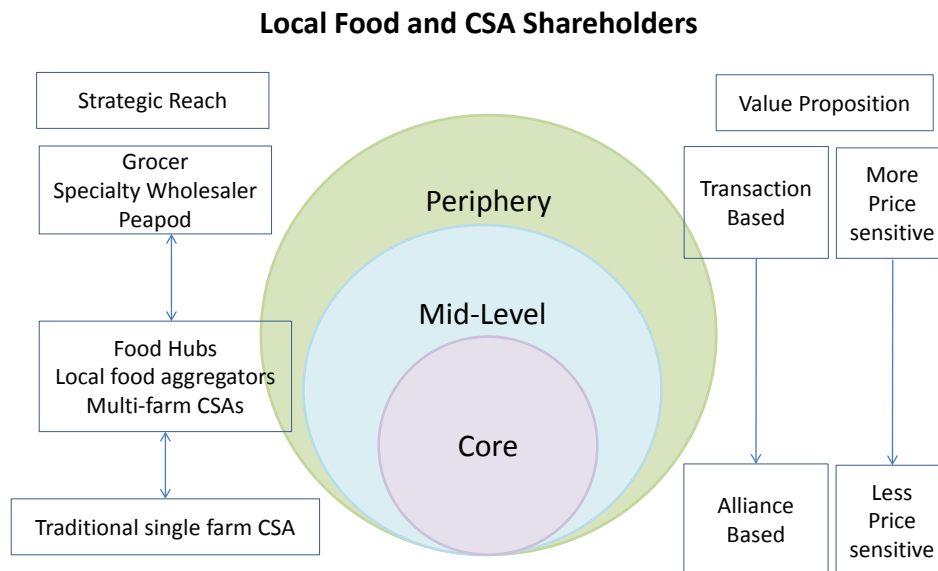
<b>Transaction Based</b>	<b>Alliance Based</b>
Short-term relationships	Long-term relationships
Multiple suppliers	Fewer suppliers
Adversarial relationships	Cooperative partnerships
Price dominates	Value-added services dominate
Minimal investment from suppliers	High investment for both buyer and supplier
Minimal information sharing	Extensive product, marketing, and logistics information sharing
Firms are independent	Firms are interdependent with joint decision making
Minimal interaction between respective functional areas	Extensive interaction between buyer and supplier functional areas

**Source:** D. Ross, *Competing Through Supply Chain Management*, (1999, 91)

An interesting dynamic among local food suppliers, including the CSA suppliers, has been the drift in strategic reach beyond their traditional core competency. Grocers and other specialty wholesalers have found ways to become more attractive to the mid-level or even core local food consumer as a result of improved in-store merchandising, expanded local foods inventory, and sustainability branding programs. The NGA Shopper Survey has reported six straight years of gains in “excellent” ratings for primary store performance relating to “offers locally grown produce and other locally sourced packaged foods”(National Grocers Association 2014). While controversial, retailers like Whole Foods and WalMart have been pushing to establish their own “responsibly grown” labels or a “sustainability index”, with a view toward the emerging consumer demand for sustainable products (Karst 2015). Specialty wholesalers, on-line grocery shopping, and home delivery service models such as PeaPod or Door-to-Door Organics (Johnson 2014) are moving closer in similarity to the forward integration models developed by farmers through food hubs and multi-farm aggregation models.

CSAs, on the other hand, have pursued their own expansion of core competencies through various aggregation and multi-farm strategies to try and close the scale economies gap associated with production, distribution, and promotion. E-commerce and social media applications provide opportunities to CSAs to engage shareholders in new ways and creating virtual communities. These applications also lower search and other transaction costs. While these are generally positive developments in favor of the CSA, these applications also have tended to replace some of the mechanisms for personal interaction or participating in on-farm events. Pole and Gray show access to local and fresh food and convenience to be much more important motivations for joining a CSA than participating in farm activities or meeting like-minded people (Pole and Gray 2012). Many single farm CSAs that struggle with having enough local demand or see attrition have instead pursued multi-farm aggregation strategies or established more distant large-volume delivery sites that can capture the necessary scale economies .

Figure 1 provides a visual depiction of the type of local food consumer emphasized through the strategic reach of the various retailers, distributors, and CSAs. It further conveys the corresponding spectrum of the value propositions typically held by core, mid-level, and periphery local food consumers – particularly emphasizing the shift in the seller-buyer relationship from transaction-based to alliance-based exchange. The notion of price sensitivity relates closely to the transaction/alliance dichotomy, but is highlighted here to emphasize the appeal this consumer group has to all types of local food marketers. There are differences in market focus and strategic reach/capability within the retail grocery community itself as well as within the CSA community. The strategic reach and value proposition continuum, however, provides a framework for considering the increasingly overlapping strategies and market focus.



**Figure 1.** Local Food Strategic Reach and Value Proposition to CSA Shareholders

This paper draws on observations taken from a national survey of CSA managers to explore perceptions of demand trends, competition, and adapting strategies to changes in the local foods market place. The paper further examines the characteristics of adaptive strategies as to whether they are consistent with the traditional alliance-based orientation and, where, not, how they may be converging with the evolving strategic reach of alternative local food distribution systems.

### Data from a National Survey of CSA Managers

A national survey of CSA managers was conducted in part to document the evolution of the CSA business model (Woods et al. forthcoming)<sup>1</sup>. This section summarizes some of the pertinent findings of this survey, but also examines the implications for strategic positioning of CSAs as they adapt to compete for the local food dollar.

A web-based survey was utilized to explore business development trends for CSAs nationally. The survey instrument was designed to examine current business characteristics, sales in related market channels, changes in production and marketing strategies, competition and local food demand, prospects for business cooperation, and shareholder recruitment. The target population was CSAs that had been in operation for at least two years, given the emphasis on changes in business activities.

A preliminary invitation was sent to the CSA manager explaining the goals of the study and the intention to conduct a national survey examining the changing CSA business model. Managers were given an option at that time to potentially participate or opt out. Surveys were distributed to

<sup>1</sup> This survey was part of a USDA-AMS cooperative agreement with the authors. Aspects of the survey are summarized here highlighting local foods market competition, shareholder recruitment patterns, and CSA emerging business functions. A detailed report summarizing this national survey is forthcoming.

2,100 addresses that did not opt out of the study, 525 to each region of the U.S.A first distribution was followed three weeks later by a second invitation. A total of 495 usable surveys were returned, yielding an approximate 24% effective return rate. Usable responses regionally were collected from the northeast (100), north central (119), southeast (87), and west (189), providing some differences in response rates by region.

Selected demographic characteristics of the CSA managers responding to the survey are summarized below in Table 2. Managers for CSAs tended to be female, younger, and holding relatively high education, consistent with observations in earlier surveys by Woods et al. (2009), Galt et al. (2012), and in the earliest surveys by Lass et al. (2003).

**Table 2.** Demographic Characteristics of CSA Managers

<b>CSA Manager Characteristics</b>	
Gender	N
Female	259
Male	171
Age	
18-24	7
25-34	102
35-44	116
45-54	92
55-64	87
65+	26
Education	
Less than high school	0
High school graduate or equivalent	16
some college/associate's degree	94
Bachelor's degree	187
Graduate or professional degree	131
Prefer not to answer	2

CSA managers were asked to assess the significance of emerging sources of competition across a variety of market channels where local food distribution is prevalent or growing. Managers were asked to place these businesses in a rank order as they were observed to be competing against their CSA. Eight business categories were provided and ranked competition as 1 = "highest" to 8 = "lowest". New CSAs, farmers markets, and expansion of existing CSAs were ranked the highest. This was followed by natural food stores, other home delivery services, and traditional grocers offering local food. High end grocers and restaurants were ranked the lowest. Mean scores are summarized in Table 3.

**Table 3.** Significance of Emerging Sources of Competition Relating to CSA

Competing Business	Mean Rank	Std Dev
New CSAs entering the market	3.47 <sup>a</sup>	2.16
Farm markets	3.48 <sup>a</sup>	2.02
Established CSAs Expanding	3.90 <sup>a</sup>	2.23
Natural food stores	4.65 <sup>b</sup>	1.99
Other home food delivery services	4.65 <sup>b</sup>	2.47
Traditional grocers offering local food	4.73 <sup>b</sup>	2.14
High end grocers	5.25 <sup>c</sup>	2.06
Restaurants offering local food	5.87 <sup>c</sup>	2.13

**Note:** (Rate highest = 1 to lowest = 8); N = 433. Margins sharing a letter in the group label are not statistically different at the 5% level using a Tukey's multiple means statistic.

Overall, it appears that CSAs look to other farm direct to consumer models as providing the greatest competition. It would suggest that there is a prevailing sense of meaningful differentiation perceived compared to other local food distribution avenues. An interesting qualifier was provided by several CSA managers, noting that they felt there was still a high degree of complementarity associated with local food access being provided through other channels and that positive spillover effects were being realized as local food options increased. This would seem to be an interesting thread for future research related to local food market channels. There are certainly possibilities for network effects (Afuah 2013; Economides 1996; Farrell and Saloner 1986; Katz and Shapiro 1986), positive externalities and reputation gains for local products that can be realized as a market grows. The network effects concept has potential for both positive and negative consequence, enhancing value for a product as supply and a network for delivery grows, but also limiting growth in competitive markets when externalities can't be captured by individual participants lacking means for coordination (Liebowitz and Margolis 1994).

The issue of competition for local food by various market channels should not necessarily be expected to be uniformly regarded across all markets where CSAs are seeking to become established. The data allows a more detailed look at competition rankings by region, rural or urban location of the CSA, and how long the CSA has been in operation.

Mean rankings of emerging sources of competition for the CSA seem to reflect some slight regional differences in magnitude, although the rank order by market channel appears to remain about the same. Other home delivery services moved up the list in the west and traditional grocers offering local food in the southeast.

Perceptions of competition were examined between urban versus rural-based CSAs<sup>2</sup>. Again, the rank order was similar, but urban-based CSAs ranked home food delivery services and high-end grocers relatively higher for local food competition and farm markets lower compared to their rural-based counterparts. High-end grocers and home delivery services tend to locate in and

<sup>2</sup> CSA managers indicated the location of their CSA as near (within 50 miles) a large city (over 1 million) or small city (250,000 – 1 million) or as “small town” or “countryside”. Urban-based CSAs representing the first two groups (58%) were slightly more common in the sample compared rural CSAs (42%).



focus on wealthy urban markets due to their particular market density requirements and more likely to be in direct competition with urban-based CSAs.

More established CSAs (in operation for more than 5 years) rated home delivery services higher and natural food stores lower than CSAs that had been in operation for a lesser duration. These results are summarized in Table 4.

**Table 4.** Emerging Competition Rankings by Region, Population Proximity, and CSA Age

	NE	NC	SE	W	Rural	Urban	Newer CSA	Older CSA
New CSAs entering market	3.01	3.27	3.65	3.76	3.33	3.57	3.55	3.40
Farm markets	3.37	3.42	3.56	3.55	3.26	3.64**	3.55	3.42
Established CSAs expanding	3.66	3.66	4.18	4.06	3.83	3.98	3.74	4.07
Natural food stores	4.67	4.59	4.94	4.54	4.52	4.76	4.43	4.87**
Other home food delivery services	5.21	4.64	4.77	4.33	4.96	4.44**	4.87	4.43*
Traditional grocers offering local food	5.06	4.59	4.59	4.70	4.86	4.62	4.67	4.78
High end grocers	5.06	5.74	4.76	5.24	5.54	5.02**	5.28	5.21
Restaurants offering local food	5.95	6.09	5.54	5.82	5.69	5.98	5.91	5.82

**Note:** t-tests were conducted for mean ranking levels for each market type between two group sets for rural-urban and newer-older CSAs.\* and \*\* indicate statistical significance at the 10% and 5% levels. “Newer CSA” is defined here as having been in operation 5 years or less.

Most CSAs (85%) noted local food demand to be increasing in their market area, noted in Table 5, almost 25% suggesting it was increasing significantly. Strong demand would suggest the degree of competition for local may be less, providing insight beyond the simple ordinal ranking of source of competition. These CSA manager observations would seem to be consistent with strong local food demand indicators from the NGA surveys and the observed growth in community farm markets and food hubs. But this would also explain the significant interest in the local food market from retailers and distributors in other market channels.

**Table 5.** How would you rate the demand for local food in your market area?

Declining significantly	Declining somewhat	Staying about the same	Increasing somewhat	Increasing significantly	Total
4	11	48	257	106	426
0.9%	2.6%	11.3%	60.3%	24.9%	

**Note:** Percent represents of those that indicated they had a basis for knowing demand for local food

CSA managers may maintain a strong demand outlook for their market, but new shareholder recruitment and shareholder retention is an issue CSAs have struggled with for a long time (Bregendahl and Flora 2006). Managers reported an average 6% growth in overall number of shareholders to 2013 and 14% growth to 2014, but there was also evidence that new shareholder recruitment was becoming more challenging for certain types of CSAs. Recruitment difficulty for the 2014 season compared to other recent seasons was rated on a five level measure from “much less difficult” to “much more difficult” and summarized in Table 6. There were 30% of the CSAs in the northeast where some of the older CSAs are located, indicating recruitment was at least somewhat more difficult in contrast to 24%-25% in the other regions. Urban CSAs were more likely to indicate recruitment difficulty compared to their rural counterparts, as were older

CSAs. While local food demand outlook may be relatively strong, CSAs do need to be mindful of maturing markets. Shareholder turnover (Table 6) was clearly higher in the southeast and northeast compared to the north central region and slightly higher among older CSAs.

**Table 6.** CSA Shareholder Recruitment for 2014 by Region, Urban Proximity, and CSA Age

Recruitment Difficulty	NE	NC	SE	W	Rural	Urban	Newer	Older
							CSA	CSA
Much less difficult	8%	16%	16%	8%	13%	10%	14%	8%
Somewhat less difficult	13%	20%	17%	15%	16%	16%	21%	12%
About the same	49%	39%	44%	52%	48%	46%	43%	51%
Somewhat more difficult	22%	18%	22%	20%	17%	23%	18%	23%
Much more difficult	8%	7%	2%	5%	5%	6%	4%	7%
N	76	88	64	156	164	220	194	190

Many CSAs have pursued a variety of adaptations from the business models common even 15 years ago (as noted in Lass et al 2003, for CSAs in 1999). A series of potentially changing CSA business functions are summarized in Table 7. Multi-farm marketing was noted to be at least “increasing some” by over half the CSAs. Multi-farm CSA strategies allow groups to pursue scale and scope economies in production and distribution. Multi-farm strategies appear to be increasing across all regions and among both the newer and more established businesses.

The original CSA subscription model concept employed single share purchases at the beginning of the season with a view toward helping farmers with cash flow and sharing in the risk of production uncertainty. CSA managers appear to be moving increasingly away from this original payment model. Flexible or installment payment plans have become much more widely used with more of a concern about the shareholder’s cash flow consideration. Almost half of the CSAs indicated the use of installment payments was increasing, with 56% indicating an increase in the use of part-season or special shares. Communication with shareholders was noted to be increasing by the majority of managers, which fits in well with the relationship intensive marketing model characteristic of the CSA. Much of this communication now takes place in the form of social media and e-mail.

Web-based sales are increasing significantly, 28% of the managers indicating these were “increasing a lot”. Web-based sales typically complement CSA sales and can either supplement a shareholder’s purchase or be delivered at a relatively low cost to a consumer at a CSA drop site, similar to the Penns Corner Farm Alliance model (Woods et al. forthcoming). The Internet has certainly impacted the mechanisms and frequency of communication and community building among CSAs and shareholders. These changes are qualitative and relative changes reported by managers, but they suggest important and significant adaptations to earlier approaches to managing these businesses that are in response to new ways of engaging shareholders. Interestingly, the older, more established CSAs generally reported increases in these strategies – likely in part due to their opportunity to observe changes in technology and multi-farm options over a longer period. Northeast CSAs generally reported less change in the selected business functions.

The majority of CSA managers reported the contribution of CSA to their farm profits to be at least “increasing some” with a larger share reporting increases in the overall profitability of the CSA, although with some regional variation. Changes in various CSA business functions and CSA profitability are summarized in Table 7.

**Table 7.** Share Indicating Business Function “Increasing Some” or “Increasing a Lot” by Region and CSA Age

CSA Business Function	Region				CSA Age	
	NE	NC	SE	W	Newer CSA	Older CSA
Marketing cooperation with other producers	45.8%	47.9%	55.3%	56.4%	51.6%	52.0%
Flexible payment options (ie, installment plans)	43.2%	53.0%	49.1%	47.0%	46.0%	50.3%
Shareholder turnover	22.6%	16.8%	28.2%	19.0%	19.0%	22.4%
Communication with shareholders	55.2%	58.7%	52.8%	59.9%	53.6%	61.4%
Web-based sales	55.8%	74.3%	69.6%	66.1%	63.8%	70.2%
Contribution of CSA to overall farm profits	47.1%	57.1%	52.1%	45.9%	51.6%	48.1%
Overall profitability of CSA	48.8%	65.1%	54.1%	53.2%	53.9%	56.9%

**Note:** Percent represent of those indicating the production function applies to their operation. Increasing is relative and not an absolute measure here. “Newer CSA” is defined here as having been in operation 5 years or less.

## Conclusions and Implications

CSAs have continued to emphasize alliance-oriented and relationship-intensive strategies while adapting new communications and e-commerce tools as a means for maintaining their competitive advantage relative to other food retailers. Assessment of the competition by CSA managers suggests they view other CSAs and other similar direct market venues as being in more direct competition compared to the transaction-oriented retailers, although these retailers are aggressively pursuing expansion into the local foods market arena.

Managers generally have a strong outlook for local food demand, while trying to implement strategies that help them capture scale and scope economies and keep closely engaged. This may suggest that the “core” consumer base is also growing, although there may be some evidence of more market maturity in some regions. Alliance-type strategies become increasingly challenging as CSAs become bigger and move toward multi-farm models. Increasing scale with slower demand and/or higher shareholder attrition would necessarily involve reaching to mid-level or periphery consumers that are apt to be more price sensitive and better aligned with the strategic reach of other retailers. This paper suggests these types of CSA management strategies, while having short-term merit in gaining advantages in distribution, move CSAs closer to transaction-based models and converging with other retailers seeking to better provide local food options.

Farmers have been adapting the CSA model by finding a variety of ways to keep their shareholder community engaged. Social media and e-commerce present new ways of enhancing relationships and value within these communities and allow producers to tell the farm story better – reinforcing the sense of personal connection to the farm. 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.

This study, although national in scope, has inherent limits with the focus on manager perceptions. Ideally specific financial metrics would be collected for each CSA to further quantify measures like profitability, dollar amounts of web-based sales, sales related to season-extension, and other financial data. There is a clear survey length and business information sensitivity tradeoff. Future studies of CSA operations, however, could strive to better document at least some of these elements in actual margins or sales. There is a sizeable sample of CSA managers represented in the survey, but a fair concern might be expressed about some degree of non-response bias among CSAs that may be struggling. Future studies would potentially consider evaluating a wider complement of alliance-based strategies employed by CSAs. An interesting analysis could be explored from the shareholder perspective in comparison to other non-CSA local food consumers that may fall in the mid-level or periphery category to document. Seller (local food distributor) choices by local food consumers can also reveal preferences for transaction or alliance based relationships around local food.

The future of CSAs based on these manager perspectives suggests an expectation of opportunities to build on largely growing demand for local food, an increased role for social media and other web-based interactions, and increasing scale and profitability, and contribution of the CSA to overall farm profits. The local food supplier market is becoming more crowded, but CSA managers have generally been able to adapt the traditional CSA model to meet the needs of the modern local food consumer competitively.

## References

- Adams, D.C., and A.E. Adams. 2011. "De-Placing Local At The Farmers' market: Consumer Conceptions Of Local Foods." *Journal of Rural Social Sciences* 26(2):74-100.
- Afuah, A. 2013. "Are network effects really all about size? The role of structure and conduct." *Strategic Management Journal* 34(3):257-273.
- Bond, J.K., D. Thilmany, and C. Bond. 2009. "What Influences Consumer Choice of Fresh Produce Purchase Location?" *Journal of Agricultural and Applied Economics* 41(1):61-74.
- Bregendahl, C., and C.B. Flora. 2006. "Results from Iowa's Collaborative CSA Member Survey." Ames, Iowa: Iowa State University.
- Diamond, A., and J. Barham. 2012. "Moving food along the value chain: innovations in regional food distribution." USDA Ag Marketing Service, Washington, DC.
- Economides, N. 1996. "The economics of networks." *International Journal of Industrial Organization* 14(6):673-699.
- Farrell, J., and G. Saloner. 1986. "Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation." *American Economic Review* 76(5):940-955.

- Galt, R.E. 2011. "Counting and mapping Community Supported Agriculture in the United States and California: contributions from critical cartography/GIS." *ACME: An International E-Journal for Critical Geographies* 10(2):131-162.
- Galt, R., L. O'Sullivan, J. Beckett, and C. C. Hiner. 2012. "Community Supported Agriculture is thriving in the Central Valley." *California Agriculture* 66(1):8-14.
- Gumirakiza, J.D., K.R. Curtis, and R. Bosworth. 2014. "Who Attends Farmers' Markets and Why? Understanding Consumers and their Motivations." *International Food and Agribusiness Management Review* 17(2):65-82.
- Hartman Group. 2008. "Consumer Understanding of Buying Local." *HartBeat*. 27 [Accessed February 28, 2013]. <http://www.hartman-group.com/hartbeat/2008-02-27>.
- Huntley, S. 2014. "The 2014 CSA Farming Annual Report: Member Assembler Summary." [Accessed June 1, 2015]. <http://www.memberassembler.com/hub/csa-report>.
- Johnson, G. 2014. "Door to Door Organics continues to expand." *The Packer*, December 16, 2014. [Accessed June 1, 2015]. <http://www.thepacker.com/fruit-vegetable-news/Door-to-Door-Organics-continues-to-expand-286001251.html>.
- Karst, T. 2015. "Wal-Mart ratchets up sustainability expectations." *The Packer*, January 13, 2015. [Accessed June 1, 2015] <http://www.thepacker.com/fruit-vegetable-news/Retailers-ratchet-up-sustainability-expectations-288466701.html#sthash.6Mz3XS7z.dpuf>.
- Katz, M.L., and C. Shapiro. 1986. "Technology adoption in the presence of network externalities." *Journal of Political Economy* 94(4):822-841.
- Lass, D., A. Bevis, G.W. Stevenson, J. Hendickson, and K. Ruhf. 2003. "Community Supported Agriculture entering the 21st century: results from the 2001 national survey." University of Massachusetts, Department of Resource Economics.
- Liebowitz, S.J. and S.E. Margolis. 1994. "Network Externality: An Uncommon Tragedy." *The Journal of Economic Perspectives* 8(2):133-150.
- Low, S.A., A. Adalja, E. Beaulieu, N. Key, S. Martinez, A. Melton, A. Perez, K. Ralston, H. Stewart, S. Suttles, S. Vogel, and B.R.B. Jablonski, 2015. "Trends in U.S. Local and Regional Food Systems: A Report to Congress." AP-068, USDA-Economic Research Service, Washington, DC.
- Matson, J., and J. Thayer. 2013. "The role of food hubs in food supply chains." *Journal of Agriculture, Food Systems, and Community Development* 3(4):1-5.
- National Grocers Association. 2014. "2014 Consumer Survey Report." Consumer Insight, Inc.

- Nie, C., and L. Zepeda. 2011. "Lifestyle segmentation of US food shoppers to examine organic and local food consumption." *Appetite*, 57(1):28-37.
- Pole, A. and M. Gray. 2012. "Farming Alone? What's up with the "C" in community supported agriculture?" *Agriculture and Human Values*, 30(1):85-100.
- Ross, D.F. 1999. *Competing Through Supply Chain Management: Creating Market-Winning Strategies Through Supply Chain Partnerships*. Kluwer Academic Publishers: Boston, MA.
- Stanton, J.L., J.B. Wiley, and F. F. Wirth. 2012. "Who are the locavores?" *Journal of Consumer Marketing* 29(4):248-261.
- USDA Ag Marketing Service. 2015 [Accessed June 1, 2015] "National Count of Farmers Market Directory Listing." Available at <http://www.ams.usda.gov/local-food-directories/farmersmarkets>.
- Wells, J.R., and T. Haglock. 2008. "Whole Foods Market, Inc." Harvard Business School Case Study. 9-705-476, 34. Harvard University.
- Williamson, S., S. Ernst, T. Woods, and W. Hu. 2012. "Characteristics of Local Foods Consumers: A fresh look". Paper presented at the Southern Agricultural Economics Association Annual Meeting, Birmingham, Alabama, February 2012.
- Woods, T., M. Ernst, and D. Tropp. (Forthcoming). "The Changing CSA Business Model: National Manager Survey and Case Studies." USDA Agriculture Marketing Service, Washington, DC.
- Woods, T., M. Ernst, S. Ernst, and N. Wright. 2009. "2009 Survey of Community Supported Agriculture Producers." Agricultural Economics Extension Series 2009-11, University of Kentucky.
- Zepeda, L. 2009. "Which little piggy goes to market? Characteristics of US farmers' market shoppers." *International Journal of Consumer Studies* 33(3):250-257.
- Zepeda, L. and J. Li. 2006. "Who Buys Local Food?" *Journal of Food Distribution Research* 37(3):1-11.