From the boardroom to the farmers’ market: Using activity system mapping to explore a farmers’ market competitive advantage

Christopher T. Sneed
The University of Tennessee Extension – Blount County

Ann E. Fairhurst
The University of Tennessee, Department of Retail, Hospitality, and Tourism Management

Abstract
There are few recent success stories in North American agriculture that match the growth of direct marketing. The number of farmers’ markets in the United States, for example, tripled from 1,755 in 1994 to 5,274 in 2009 (USDA, 2009). Despite this positive trend, recent research suggests that this dramatic increase masks the reality that many farmers’ markets fail within their first few years of operation. Markets may fail for many reasons, including ineffective management weakened by a lack of resources. On the other hand, those markets that have been well planned and understand their strategic position and competitive advantage in the local market are more likely to survive these vulnerable formative years. Business strategist Porter (1985) developed the “activity system map” to show how a small set of core competencies (what an enterprise does well), together with specific management and policies that support those competencies, fit together to create a strategic position. An enterprise that has effective strategic position is said to have a competitive advantage in the marketplace.

In this paper we describe how we created an activity system map for a farmers’ market in an eastern Tennessee. This included analyzing organizational documents and interviewing market organizers and management, and then creating a simple diagram that depicts the web of relationships between core competencies of the market and the ongoing activities and policies of the farmers’ market managers that support these competencies. We believe that farmers’ market sponsors and managers often may be too immersed in day-to-day activities to step back and see the relationship of these activities and policy enforcement to the core competencies. Activity system mapping facilitates discussions on market policy, promotion, and competitiveness. We conclude from this exercise that activity system mapping has the potential to be a useful tool for agriculture and food system practitioners in assisting new or existing farmers’ markets to increase their viability in the short run and their sustainability over the long term. Recommendations are made for adopting and/or adapting this technique for use with farmers’ markets in other communities.

Christopher T. Sneed, M.S. (corresponding author), The University of Tennessee Extension – Blount County, Maryville, TN 37804, USA; csneed@utk.edu.

Ann E. Fairhurst, Ph.D., The University of Tennessee, Department of Retail, Hospitality, and Tourism Management, Knoxville, TN 37996, USA; fairhurs@utk.edu.
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Introduction
Increased consumer demand for locally grown foods, heightened concern over the safety of the global food supply, and desire for profit maximization by farmers through direct-to-consumer selling have resulted in a substantial rise in the number of farmers’ markets in the United States. From 1994 to 2009, the number of operating farmers’ markets increased from 1,755 to 5,274 (USDA, 2009). While impressive, the numbers may mask the reality that many farmers’ markets fail in their formative years. In a study of Oregon farmers’ markets, Stephenson, Lev, and Brewer (2008) reported that a significant number of markets failed during their first four years of operation. The authors identified five factors associated with these failures: small size, lack of volume or diversity of products, lack of administrative revenue, unpaid or underpaid market manager, and high market manager turnover.

We believe that farmers’ markets can at least partially address some of these difficulties early on through strategic positioning that includes a focus on competitive advantage in the local market.

Porter (1985) defined competitive advantage as having the ability to deliver the same benefits as competitors but at a lower cost (cost advantage), or to deliver benefits that exceed those of competing products (differentiation advantage). Therefore, a competitive advantage enables an enterprise to create superior value for its customers and superior profits for itself. Farmers’ markets may or may not have a cost advantage, but they certainly can differentiate themselves from other food outlets in a community.

Porter developed a tool that he called the “activity system map” (ASM) for analyzing a company’s competitive advantage. In this paper we demonstrate how an activity system map can be used by a farmers’ market to better understand its competitive advantage, thereby improving its chances of survival during its challenging formative years.

We begin with a summary of the key literature on farmers’ market development and structure, as well as on the process of activity system mapping. We follow this with the application of this technique to a case study farmers’ market. We conclude with recommendations for farmers’ market managers and advisory boards, as well as for professionals who work with farmers’ markets.

Farmers’ Market Growth and Development; Strategic Planning
There is a broad literature on the benefits of farmers’ markets to vendors and their contributions to communities (see Gillespie, Hilchey, Hinrichs & Feenstra, 2007; Govindasamy, Italia, & Adelaja, 2002; Hinrichs, 2000, p. 301; and Lyson, Gillespie, & Hilchey, 1995). There is considerably less literature on farmers’ market growth and development, or on strategic planning for farmers’ markets. What is known, however, is instructive. Lloyd, Nelson, and Tilley (1987) found that farmers’ markets develop in a sequence of three stages, with the probability that a farmers’ market will succeed increasing as it moves to more complex stages of development. They found that the initial years of a farmers’ market are generally marked by instability, lack of regular vendors, and reluctance by consumers to shop at the market regularly due to what they perceive as a lack of vendors and supply of products. After the first few years in operation, farmers’ markets begin the transition to the second stage of development. During this stage, the presence of regular vendors, increased consumer patronage, and addition of larger producers increases the probability that the farmers’ market will succeed. Over time, farmers’ markets reach the third and final developmental stage, which is marked by substantial supply as well as steady consumer patronage.

As markets grow, they also become more organizationally complicated. In their work studying farmers’ markets in Oregon, Stephenson, et al. (2007) found the use of more complex organizational structures to be positively associated with the size
of the market in operation. They observed that while small markets employ more management structure (vendor guidelines, bylaws, volunteer manager, boards of directors), medium-sized and large markets add more management complexity in the form of paid market managers and other employees, as well as more sophisticated planning and budgeting management systems (Stephenson, Lev & Brewer, 2007, p. 5).

Sophisticated planning includes establishing a strategic position in the marketplace. German, Toensmeyer, Cain, and Rouse (1994) argued that in order to be viable, farmers’ markets need to differentiate and establish a competitive advantage in the intense competition for food dollars facing farmers’ markets. Indeed, it could be argued that the basis of sustainable farmers’ market development is a circular or self-reinforcing process: a clear understanding of competitive advantage should lead to an increase in sales and revenue to the market, which, in turn, leads to more stable and professional administration of the market, which is then able to strengthen the competitive advantage of the market.

**Strategic Positioning, Competitive Advantage, and Activity System Mapping**

According to Porter (1985), retail strategy at its very core is about being different. This difference from one’s competitors is achieved by selecting a set of core competencies and related management activities and policies that result in delivering a sense of value to the customer. Taken together, these form the organization’s strategic position in the marketplace. An enterprise with a unique strategic position is said to have competitive advantage (Porter, 1996).

Porter outlined three distinct types of strategic positions: variety, needs, and access (Porter, 1985). Depending on the products offered, customer demographics, or market location, farmers’ markets could easily derive strategic positions for any of the above sources. Variety-based positioning is based on producing a specific set of products or services. Farmers’ markets that limit their sales to only locally grown agricultural products are seeking to occupy a variety-based position. These markets are seeking to set themselves apart from competitors, including other farmers’ markets, by specializing in offering a specific, in this case locally grown, segment of agricultural products to the exclusion of all other products. Need-based positioning occurs when an organization seeks to fulfill a majority of the needs for a given target group of customers. For farmers’ markets, need-based positioning may emerge when specific activities and policies are utilized to meet the needs of consumer groups concerned with the safety of the food supply and the use of pesticides, hormones, and other modification agents during food production. Need-based positioning can also occur when farmers’ markets elect to operate in food deserts, thereby meeting a need for fresh food in these areas. Often this form of positioning is utilized in concert with variety-based positioning to give farmers’ markets their competitive advantage as a source of locally grown products. Access-based positioning, the last of Porter’s types of strategic positioning, is achieved when efforts are focused on reaching a segment of customers that is accessible in defined ways. According to Porter, access-based positioning is often thought of in terms of geography or customer scale. Markets that make a deliberate decision to operate in a certain location (city center, limited-income neighborhood, suburban fringe) for the express desire of reaching a target segment of customers would be employing this form of strategic positioning.

To analyze strategic positions and competitive advantage, Porter developed activity system mapping, which is a diagram that shows the core competencies of a company along with the associated management activities and policies that support them. More than just a laundry list of strategies and activities, an ASM provides a graphic representation of how the activities pursued by an organization fit with and reinforce each other. Porter believes that the extent to which the activities and policies of an organization lock together or “fit” helps determine the competitive advantage of that organization.
Over the years Porter applied ASM to a variety of traditional retailers, including Ikea and Southwest Airlines. In the case of Ikea, Porter showed how the company’s core competencies of modular furniture design, limited customer service, self-selection by customers, and low manufacturing cost, together with the related management activities and policies to support these strategies, formed Ikea’s very effective competitive advantage. Porter warned that the interlinked nature of the core competencies and activities means that “poor performance in one activity will degrade the performance in another” (Porter, 1996, p. 74). Thus, the degree of fit among the activities determines the sustainability of that advantage over time.

Due in part to its simplicity and effectiveness in organizing complex information, activity system mapping has become a staple strategic planning tool in corporate boardrooms. The question for us was could this be a useful tool for farmers’ markets as well?

A case study: Applying activity system mapping to a farmers’ market in eastern Tennessee

To assess its applicability as a tool for analyzing the competitive advantage of a farmers’ market, the coauthors created an activity system map for a small, suburban farmers’ market in eastern Tennessee for which the coauthors are advisors. The one-day, Saturday market is composed of thirty vendors offering a variety of locally produced farm goods ranging from organic vegetables to specialty cheeses and breads. Total annual sales at the market are under $150,000. The week-to-week operations of the market are coordinated by a part-time market manager and an advisory board.

In addition to its convenience and our familiarity, we selected this market for several other reasons: first, the market was beginning its fourth year and therefore was operating in a very critical time period in its development; second, a wide range of documentation was available for analysis; and finally, the market operates in a highly competitive environment. Two adjacent counties host four farmers’ markets within a thirty minute drive of the market site, and so competition for farmer-vendors is very keen. In addition, a specialty grocery focused on the sale of locally produced foods opened recently less than a mile from the market and has become a major competitor in the local foods market.

Steps in Creating the Activity System Map

The process we adapted from Porter to create an ASM works much like a funnel, with large amounts of information being analyzed and organized into a final visual representation (see figure 1).

1. Information Collection. The first step included gathering documents such as annual and monthly financial statements, bylaws, the mission statement, vendor guidelines, news releases, and available minutes of the farmers’ market advisory board meetings since its inception. Board minutes were incomplete, so

![Figure 1. Activity System Map Process](image)
interviews with board members were used to help fill in the gaps.

2. **Information Analysis.** The documents were carefully screened to identify specific statements related to the aspirations or objectives of the market, especially how it was differentiating itself from its competition. As a means of ensuring a thorough and unbiased analysis, the coauthors reviewed the documents independently. Recurring statements were combined into broad themes. We also inventoried details related to the stated policies and weekly activities of the market that supported the core competencies. We found that color-coding these statements using highlighters was a convenient way to track their relationship to competencies or supporting activities and policies.

3. **Theme Review.** Again working independently, the authors listed the management activities and policies under each broad theme they appeared to support.

4. **Regrouping.** The authors compared their lists of themes and supporting activities and policies. Although we did our information analysis separately, there was nearly perfect agreement between the coauthors concerning the identification of core competencies, and the links between the activities and policies supporting these competencies. Minor differences were discussed and resolved.

5. **Diagram Creation.** We then constructed this analysis into a diagram: the activity system map. The broad themes that captured the essence of the market’s mission, objectives, and what it did
well or wanted to do well were its core competencies. The management activities and policies we identified were management undertakings in support of its core competencies. Using lines and circles, we generated a graphical representation of the information we had gathered and analyzed.

6. **Sharing.** The final step was to share the ASM with the market’s administration. The map was used as a means for sparking communication and increasing dialogue concerning the day-to-day operations of the market.

**Results**
The ASM we produced is depicted in figure 2. Thirteen activities and policies clustered around five core competencies form the activity system map for the eastern Tennessee farmers’ market selected for this study.

The core competencies are depicted as dark circles on the activity system map; the gray circles depict the management activities and policies of the market to support the core competencies. The lines between these elements depict the key links.

It should be noted, however, that it is possible to make a case for linking just about every core competency with every supporting management activity or policy. Such is the nature of organizations. And while such a version of the ASM might be more complete, it would not be entirely useful. For obvious practical reasons we only include the key links.

A discussion of the core competencies and their related activities and policies follows.

**Core competency: Promoting local farm products**
A majority of the activities and policies implemented by the farmers’ market center on promoting local farm products. In order to ensure that all products sold at the market are locally grown (produced within a nine-county radius), a member of the farmers’ market advisory board conducts on-farm inspections of each vendor who applies to sell at the market. These inspections provide assurance to the market board as well as market patrons that products being offered are grown by the vendors and meet the criteria set by the advisory board for being locally grown. Furthermore, these inspections help to discourage vendors who might bring in farm products and resell them at the market.

In addition to on-farm inspections, the farmers’ market *selling guidelines* limit items sold at the market to produce, plants, herbs, or value-added products. Though attempts have been made to expand the selling guidelines to include craft items as well as other nonfarm products, the advisory board has consistently held the position to deny membership to food vendors and crafters. A focus on locally grown farm products and value-added products sets the market apart from neighboring farmers’ markets and roadside stands that sell nonfarm items. Members of the advisory board as well as the part-time market manager stress the importance of putting the producer first. Producers have an active role in the oversight and management of the market. According to the organization’s bylaws, at least half of the advisory board membership must be producers who are selling at the market. Early board minutes revealed that the original intent was for the board to be vendor-run. This food and agricultural orientation may also make the market competitive in terms of recruiting and retaining farmer-vendors; it can be an issue for farmers’ markets to have vendors “poached” by farmers’ markets in adjacent areas.

**Core competency: Encouraging contact**
Policies of this farmers’ market are designed to foster interaction between producer and consumer. As stated in the vendor application and *seller guidelines*, selling is limited to a producer or his or her farmworkers. Discussions documented in the minutes of the advisory board reveal that the primary purpose of this guideline is to ensure that individuals selling at the market are knowledgeable about the cultivation practices of the products they are vending. As stated by one of the board members, “letting a representative [sell products at the market] defeats the purpose of getting the
farmer and consumer together” (Advisory Board Meeting Minutes, 11/15/2005).

The advisory board spends considerable time promoting the farmers’ market. Minutes of advisory board meetings reveal that the topic of marketing is discussed in some form at each of its meetings. Weekly advertisements are placed in the local news media to remind consumers of the date, time, and location of the market. In addition, these advertisements include reference to any special events at the market that weekend.

**Core competency: Educating the public**

The special events suggest that the market is more than a place for the buying and selling of farm goods. The market is also a vehicle for educating the public concerning agricultural issues and traditions. In partnership with the local Cooperative Extension office and other community groups, the market hosts a variety of information booths (where educational materials are disseminated) and special event days throughout the selling season, with topics including farm sustainability, home food preservation, and cooking demonstrations. The special events have the dual purpose of education as well as celebration.

**Core competency: Celebrating and preserving family farms**

Allowing only local vendors to sell local products at the market supports local producers by keeping consumer dollars in the area. Market board members are passionate in their promotion of the market as an important and profitable venue for local producers to offer their products.

On days when there are special events such as music and guest chef demonstrations, the market takes on a very different feel from that of the traditional grocery-store environment. Creating this festive atmosphere makes the market more of a destination, a place individuals attend not only for the products offered, but also for the opportunity to experience the social nature of connecting with producers and other community members. The resulting festive nature of farmers’ markets is one of its strongest attractions. Attendance records along with anecdotal evidence from board members and consumers show that on days the market is hosting a special event, attendance increases.

To assist in farm sustainability, training is regularly offered to market vendors concerning effective selling practices for the market. It is the belief of the advisory board that with an increased focus on the best practices in pricing and merchandising, vendors at the market will see an increase in the profits generated. By extension, greater profitability for the farm will lead to preservation of the farm. While no research has been undertaken by the market to demonstrate the effectiveness of these trainings, vendors view the training opportunities as yet another way to increase their sales at the market. It should be noted that trainings also stand to have a positive impact for the consumer, who benefits from neat displays, clearly priced products, and products free of dirt and debris.

**Core competency: Improving freshness, taste, and nutritional value of available products**

By limiting vending to local producers and local products, the market’s advisory board tries to capitalize on the belief that local products are superior in taste and freshness. The superiority of the products offered is one of the major draws for the market.

In addition to being locally grown, all products sold at this farmers’ market must meet the appropriate certifications as mandated by the state department of agriculture and the United States Department of Agriculture (USDA). To insure the safety of the food items sold to consumers, vendors must provide the advisory board with a copy of USDA licenses for the retailing of meat products. Likewise, any vendor wishing to sell food products produced at home, such as jams and jellies, must provide evidence of completion and certification in the state’s domestic kitchen program. Additionally, state department of agriculture certification is required for individuals vending any products with soil and mulch, such as bedding plants.

**Sharing the Map with Stakeholders**

The activity system map was presented to the board members of the case study farmers’ market.
The ASM confirmed that many decisions made by the board in the market’s beginning years proved advantageous in positioning the market as a leading source of locally grown produce and value-added products. However, based on an evaluation of the ASM, board members did see the need to make some minor changes. According to one board member, the activity system map showed an opportunity to build on what was working by offering even more educational activities.

As a result of the presentation of the ASM to the market board, the following are being implemented during the 2010 market season:

- The farmers’ market advisory board is increasing the volume of educational materials it disseminates to market patrons. The board has always distributed materials promoting the market’s location and hours of operation. New materials focusing on the benefits of eating locally, organic farming, and environmental stewardship will be distributed to market patrons in the future as well.

- Special-event days will now include more in-depth educational programs. The board is planning to bring in guest speakers who will provide educational sessions related to the theme of the day.

- As an expansion of its effort to provide training for producers, the advisory board purchased a DVD on guidelines for selling at a farmers’ market. This DVD is available for vendors to check out and view on their own.

Conclusions

When one considers the numerous activities inherent in managing the weekly operations of a farmers’ market, as well as the tight budgetary constraints within which many farmers’ markets operate, the usefulness of strategic positioning to gain a competitive advantage becomes apparent. By using strategic positioning and activity system mapping, market management and vendors can better understand what aspects of their market set it apart from neighboring markets, food retailers, and other forms of direct-to-consumer options competing for the food dollars and patronage of area consumers. Market management will also be able to determine which activities and policies reinforce the competitive advantage of the market and therefore deserve continued or additional allocation of resources.

In the case of our study market, the ASM suggests that the activities and policies undertaken by the farmers’ market advisory board and management have worked to support the competitive advantage of the market based on variety and to a lesser degree need-based positioning. By limiting sales to a specific set of products (locally grown farm goods), as well as offering events, public education, and support to local farms, the farmers’ market has set itself apart from its nearby competition.

The results of our case study demonstrate that activity system mapping can be a useful way for farmers’ markets to both explore and clarify their competitive advantage. The process of creating an activity system map transforms paper, data, stories, and numbers into a visual representation of how policies and weekly management activities of a farmers’ market combine to either facilitate or perhaps challenge the success of the market.

We believe the results of this research hold value for farmers’ market organizational bodies as well as local stakeholders that work to foster farmers’ market development and success. Implications for three groups are outlined below.

Implications for Start-up Farmers’ Markets

Developing an activity system map can be useful to markets that are in their formative stages. New farmers’ markets must have a clear strategy to communicate direction for the market and assist in growing the customer and vendor base. An ASM can be completed after the market’s first season of operation. By getting a bird’s-eye view of the market, management can critically examine the extent to which activities of the first year supported the original mission of the farmers’ market, and which might have squandered precious financial and volunteer resources. New markets might
consider informally reviewing their activity system map on an annual basis through their first five years. In doing so, these markets can be more certain that their activities and policies maintain the competitive advantage of the market.

**Implications for Existing Farmers’ Markets**

More established markets may not feel the need to prepare an ASM, even as a midcourse correction tool, unless there is a major organizational or policy change. The complex and rapidly changing nature of direct-to-consumer marketing of farm products necessitates that farmers’ markets continually evaluate previous success and future direction. We believe that an ASM can be a useful tool to help older farmers’ markets reassess what sets their market apart from other competitors engaged in food retailing — their competitive advantage. Mapping the policies and activities undertaken by the market allows management to identify areas needing reallocation of resources. A critical examination of regular activities and policies can also foster a renewed sense of purpose and commitment to selling through the market venue within advisory board members and vendors.

**Implications for Agricultural and Food System Practitioners**

Agriculture and food system practitioners can play a critical role in helping nurture the success of farmers’ markets within their communities. The process of developing an activity system map and understanding the underlying principles of competitive advantage takes time, but is not technically difficult. Outside advisors are in a position to provide training and assistance to markets in understanding and completing the process of activity system mapping, and using the results to inform future management decisions.

**Recommendations**

Based on our experience, we make the following recommendations:

- **Recordkeeping**: The strength of an activity system mapping outcome rests on the quality of organizational information on the farmers’ market that is available. During the review of the documents for this study, many missing pieces of information were noted. The nature of the missing information varied. In some cases, minutes from organizational and board meetings were missing. In other cases, only brief reports of meeting business were available. Therefore other documents, including news releases and financial reports, were utilized. Our experience points out the critical importance of keeping good records during all stages of the market’s life, from conception and pre-opening to maturity, such that they may be utilized for ASM and perhaps other purposes in the future.

- **Include Interviews with Stakeholders.** In addition to gathering documents, we recommend conducting semistructured interviews or a focus group with vendors, advisory board members, and market management, both past and present. Questions should focus on the history of the market, the evolution of organizational structure and operational activities, market policies, and financial trends, among others. This will supplement the document analysis by filling in information gaps and providing new information.

- **Engagement**: Engagement of market stakeholders in the process of preparing an ASM is essential. After all, this is a management tool that can help the market stay competitive. The management of a farmers’ market will likely want to do this and will be supportive of an outside professional preparing the ASM. A facilitator will need to provide a full explanation of the activity system mapping process, the deliverables, and the benefit of this process for the entire market.

- **Maximize objectivity.** While engagement is critical, we suggest that the information analysis, theme review, and diagram creation be conducted by an indifferent party. In order for the ASM to be most effective, the analysis must be completed by a neutral observer. An individual connected with the market might subconsciously introduce bias, or in the worst case might deliberately alter the content of the ASM in order to sway opinion to a particular point of view or objective.
Once the activity system map has been developed, time should be scheduled to share the results of the process. A review of the finished activity system map can serve as a reality check. Does the map agree with the views of management and vendors? Does it need to be fine-tuned? Are any current activities or market policies missing? Looking ahead, what new activities or policies would support existing or new core competencies? Managers and vendors can become so entrenched in the day-to-day operations of the market that they are unable to step back and see the big picture and the progress that has been made. Sharing the activity system map allows both market management and vendors to reflect, take stock, and perhaps take pride in the accomplishments produced by their dedicated efforts.

Conducting competition analysis. A basic level of competition analysis is embedded in the process of preparing an ASM, since mission and core competencies are generally developed in the context of the local market and its competitors. It is possible, however, that the market’s founders did not give much thought to the competition and may have implemented the market with the attitude that “if we build it, they will come.” In this case, an ASM will not be enough to establish a solid competitive advantage, and the market management might consider preparing a complementary competition analysis as well. The description of such a tool is beyond the scope of this paper, but the technical means of conducting competition analysis is readily available on the Internet.

Further Research
This study represents a first attempt to apply an activity system map in the context of farmers’ market strategic planning. The authors plan to follow this market over time to see the long-term impacts of activity system mapping in terms of the market’s competitive position and overall viability.

We would also like to see additional activity system maps completed for farmers’ markets around the country. This might facilitate the creation of standardized data collection forms, sample farmers’ market activity system maps, and ASM training materials.

Finally, we believe there is a need to adapt other business strategic planning and organizational development tools for use by farmers’ markets. These might include strategy maps (Kaplan & Norton, 2004), force field analysis (Lewin, 1943), and the Blake-Mouton Managerial Grid (Blake & Mouton, 1964). Applied research collaborations between farmers’ markets and local business schools and land grants universities may bear valuable fruit. We strongly encourage agriculture and food system practitioners to help facilitate these relationships.

Disclosure
The farmers’ market referenced in the article is one on which both authors serve on the advisory board. Their participation on the board is done in a service capacity with no compensation.

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