Understanding the Link Between Farmers' Market Size and Management Organization

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UNDERSTANDING THE LINK BETWEEN FARMERS' MARKET SIZE AND MANAGEMENT ORGANIZATION

Farmers' markets are valuable market channels for small farmers and important venues for the economic, nutritional, and social lives of communities. Efforts to make farmers' markets sustainable should focus on two influences on markets: external (related to public policy) and internal (related to market management). Well-crafted public policy is needed to enhance the prosperity and longevity of farmers' markets. At the same time, improving the management of farmers' markets by identifying and resolving their internal issues is another way to improve market sustainability. This report addresses the latter.

This report examines the relationship between the size of individual farmers' markets and the set of management tools used by farmers' markets. The analysis reveals farmers' markets will benefit from using the specific set of management tools and resources appropriate for the size of the market. A market must also recognize that it must plan ahead and put in place the appropriate management tools and resources that will allow it to handle the increasing management complexity that accompanies growth. Overall, understanding the link between management structures and market size will enhance the success of individual farmers' markets and save some from serious problems.

Methods

The information presented here is one segment of a larger research project that examined farmers' market viability in the Pacific Northwest (Stephenson, Lev, and Brewer 2006a). The data were collected between 2002 and 2005. Both quantitative and qualitative research methods were used, including a survey questionnaire administered by telephone, interviews, focus groups, and a project advisory committee consisting of market managers.

To obtain information from a full season of operation from individual farmers' markets, the survey questionnaire focused on the 53 farmers' markets operating in Oregon during 2002 that had operated during the 2001 season. The questionnaire explored market fee structures, sources of revenue, market site amenities, typical products, and common management structures. Fifty of the 53 eligible farmers' markets participated in the survey. This 94 percent response rate strengthens the validity of a research study drawn from a numerically small population.

Following a preliminary analysis of the quantitative and qualitative data, six focus groups of farmers' market managers were organized and conducted on a regional basis. A total of 29 managers participated, representing 33 farmers' markets. The focus groups provided a two-way exchange of information between researchers and practitioners and added vital data to the project. A final step involved using the project advisory committee to review and critique the research findings.

Quantitative data from the survey questionnaire were organized and analyzed using Statistical Package for the Social Sciences (SPSS) version 11.5. Statistical analysis was conducted with consultative support from the Survey Research Center at Oregon State University.

Information is presented here in three sections. The first section, "Farmers' Market Management and Organization," summarizes some of the research literature associated with farmers' market management and organization. The second section, "A Summary of Key Findings," provides a brief summary of this research to facilitate a more complete understanding of the information as the report unfolds. The third section, "Market Size Categories and Organizational Structure," presents details on the organizational structure of farmers' markets relative to market size based on the data for Oregon farmers' markets.

Farmers' Market Management and Organization

In their history and value of public markets, Spitzer and Baum (1995:67) point out that "Management generally is recognized as the critical determinant for achieving long run success with any public market." A study of the organization of small farmers' markets in Kansas concluded that there is "a strong need for organization within a market to ensure vendor satisfaction" (Hughes and Mattson 1992:5). Despite the obvious importance of management as a factor in successful farmers' markets, there have been very few research studies on the topic.

An overview of farmers' markets in Pennsylvania identifies four broad types of market organizational structures:

1. No organization among producers; farmers simply show up.
2. An arrangement with the owner of a private business. In this instance, producers are tenants and the owner makes all the rules.
3. Unofficial agreement among producers. The market is organized informally, but collects fees and uses guidelines. Producers are members of an "association" that is not legally organized or incorporated.
4. Official agreement among producers. This type of organization is a legal entity having secure legal and tax status (Center for Rural Pennsylvania 2002).

Most farmers' markets in Oregon would fall into the structures described in numbers 3 and 4 above.

Central to the organization of a farmers' market is the role of the manager. Neil Hamilton's (2002) national overview of the legal aspects of farmers' market management notes:

> A key ingredient in the operation of a market…is the person who runs the market on a day-to-day basis. This job is the responsibility of the 'market manager,' a person designated by the market organizers to be responsible for making the operational decisions (p. 8).

Spitzer and Baum (1995:69–70) identified some key tasks required for a manager to successfully operate a public market include:

- Operations: Supervise other staff; manage operating budget, including accounts receivable (rent) and payable; enforce operating rules and procedures; maintain relations with adjacent business properties.
- Leasing: Rent space to vendors.
- Tenant assistance: Assist merchants with design and merchandising.
- Marketing promotions and public relations: Calendar of events; press releases; fund-raising events; relationships with community agencies, organizations, and local government.
- Capital improvements.
- Long-range planning: Assists organizers in long-range planning based on knowledge on-site.
- Reporting: Provides regular reports to organizers regarding all areas above and proposes policy changes.

In addition to the list above, Oregon farmers' market managers generated a short set of both major and mundane tasks they regularly perform during their markets:

- Market set up and dismantling
- Putting out signage
- Fee collection
- Publicity and public relations
- Equipment inventory and maintenance
- Staffing the market information booth
- Directing traffic
- Vendor recruitment
- Bookkeeping
- Obtaining sponsorships and organizing fundraisers
- Tax preparation
- Market safety
- Special event coordination

The responsibilities of a manager vary with the size of a market. According to Hamilton (2002:8),

> If the farmers' market is a relatively small and informal one (such as six farmers in the church parking lot one afternoon a week), the market manager's job is not large. On the other hand, managing a farmers' market with hundreds of vendors and thousands of customers may be a full-time responsibility.

The number and intensity of the tasks outlined above will be related to the size of the market as well.

Along with the value of market organization and the important role of a manager, researchers see market rules as being at the heart of a well-managed

Along with market organization and manager, researchers see market rules at the heart of a well-managed market.

market. Again, Hamilton (2002) points out the necessity of having rules for governing the market:

> It might be possible to operate a farmers' market without any form of written rules or policies for the vendors, but it would not be long before a market would face difficult issues…. The reason farmers' markets use rules and policies is to prevent problems…from arising" (p. 9).

Market rules have been related to the size of a farmers' market. A Florida study recommends: "The rules should conform to the situation at hand. Thus, the rules at a small, rural market need not be as specific as those at the larger markets" (Zimet et al. 1986:295). Further, "the degree to which there exist formal rules and regulations that govern the producer participants in a farmer retail vegetable market depends on the size of the market. Without good management/organization larger markets would fail" (Zimet et al. 1986:291).

A Summary of Key Findings

This report includes a large amount of detailed information. For clarity, the key findings are briefly summarized here. Greater detail is provided in the third segment of this report.

Four market size categories were developed for analyzing market management structures. Discussed in detail below, the categories are: *Micro, Small, Medium*, and *Large*. In addition to assisting with the overall analysis of farmers' markets, these market size categories can be considered analogous to stages of organizational development and can represent what the future might look like for a growing market. For instance, a Small market that anticipates becoming a Medium market can plan for its growth based on the management tools that current Medium-size markets are using. In addition, it is important to have an organizational structure that is appropriate for the size of a market. A Small market with an organizational structure similar to that of a Large market may be wasting resources. A Large market with the organizational structure of a Small market, as one market manager stated, "will implode in a couple of years or sooner."

Here are some important findings concerning what management tools are used for markets of various sizes:

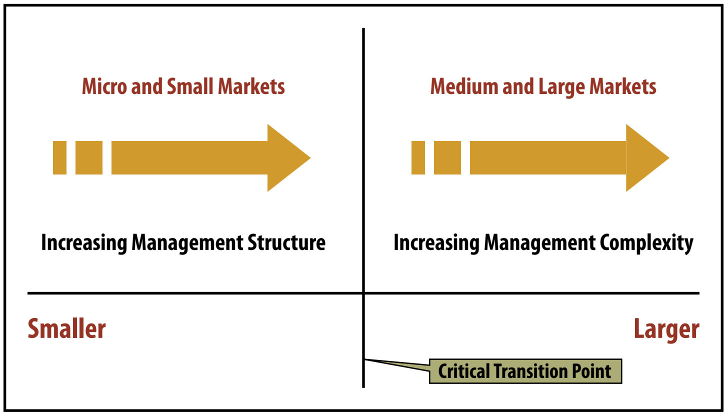
- Markets add management structure and management complexity as they increase in size.
- Each market size category uses a specific array of management tools. The use of management tools changes among market size categories. Knowledge of these changes will help markets plan for maintaining efficiency as they grow.
- There is a critical point for "smaller" markets as they transition to become "larger" markets. Specifically, this point occurs between what this research has identified as Small- and Medium-size markets. Markets must be prepared for this transition if they anticipate growing successfully beyond the Small market size.

- Micro and Small markets use more management tools, adding management structure as they grow. Tools would include site management tools, such as maps to assign spaces, and market governance tools, such as written rules and boards of directors.
- Because the management structure used by smaller-size markets is already in place for most Medium and Large markets, Medium and Large markets add management complexity as they increase in size. This complexity consists of planning for and acquiring a paid manager, additional employees and stable revenue to support them, as well as increased effort in the form of the number of hours worked in-season and off-season. Managers in these size categories perform more complex tasks; for example, budgeting and planning systems are more sophisticated.

Micro and Small markets add management structure…Medium and Large markets add management complexity.

Figure 1 helps illustrate this. Micro and Small markets add management structure as they grow. Medium and Large markets add management complexity as they grow. There is a critical transition point between Micro/Small markets and Medium/Large markets. Medium/Large markets should have appropriate management structure in place as well as the resources and planning for dealing with higher demands for paid labor and more hours worked in- and off-season.

Figure 1. Market Size and Increasing Management Structure and Complexity



Because this discussion addresses what is common to market management, rather than the best manner of operating, the conditions described may not represent the ideal. However, the knowledge of what operating guidelines other markets have instituted can guide strategic planning and resource allocation for new markets or for established markets confronting growth or other significant changes.

It is important to point out that problems do not occur simply because a market lacks a management structure to prevent or address problems. The management or organizational structure must be functional. For instance, having a board of directors does not make a market viable. Having an effective board of directors can, however, make a difference.

Market Size Categories and Organizational Structure

Market Size Categories

Market managers, vendors, board members, and researchers routinely refer to markets according to size categories. It is common during a conversation for a market to be referred to as "small," "medium," or "large." Currently, there are no established definitions of market size, only general terms created to establish a framework for communicating about markets. Size categories are an important part of this research for comparative purposes, so considerable effort was directed toward creating workable categories. The categories were created using quantitative as well as qualitative data for guidance. The categories represent the total size of the market, including both farmers and craft vendors, if present. Table 1 presents the size categories Micro, Small, Medium, and Large, along with the number of vendors associated with each category, and the number and percent of markets in each category. These size categories are intended to be guidelines. The boundaries between categories should be seen as transitions rather than as hard divisions.

Table 1. Size Categories of Oregon Farmers' Markets[1]

Category	Number of Markets	Percent of Markets
Micro (5–8 vendors)	8	16
Small (9–30 vendors)	20	40
Medium (31–55 vendors)	12	24
Large (56–90 vendors)	10	20
Total	50	100

[1]See notes on page 17.

Examination of market size categories is largely missing from the research literature. The few studies that have used categories have tended to use convenient numerical breaks rather than identifying boundaries based on quantitative and qualitative information. A national survey of farmers' market managers conducted by the USDA in 1994 classified market size as 1–9, 10–19, 20–49, 50–99, 100–500, and more than 500 farmers (Burns and Johnson 1996). Oberholtzer and Grow (2003) surveyed 57 farmers' market managers in the mid-Atlantic region of the U.S. (southeast Pennsylvania, Maryland, and Washington, DC). Here are the size categories they used for their analysis, with the percentage of markets falling into each category:

1–5 farmers (18.6 percent)
6–10 farmers (53.4 percent)
11–20 farmers (18.6 percent)
21–40 farmers (4.6 percent)
41 and more farmers (4.6 percent) (adapted from material on page 18)

These categories represent the number of farmers. A national survey of farmers' markets conducted by the USDA in 2000 (Payne 2002) used these size categories: less than 10, 10–25, 26–50, and more than 50. These categories are fairly close to those used in this study and allow some comparison of Oregon to the national sample in the data analysis on the following page.

Management Tools

The manager survey used for this study included variables related to market structure and management complexity. The Project Advisory Committee generated a number of management methods or tools they felt would be associated with markets of different sizes. Other management tools, such as those related to manager effort and use of employees, were revealed in the data analysis. Below is a list of the tools used as variables in this analysis. They are only a small portion of the manager's tool kit, but they reveal important differences among markets related to size. The management tools cover several dimensions of market management. They are grouped as site management tools, market governance tools, and labor resource tools.

Site management tools:

- Manager designs market layout.
- The positions of vendors' spaces are arranged to meet specific goals.
- Vendor spaces are assigned using a detailed map of the market site.

Market governance tools:

- The market has written guidelines.
- The market has bylaws.
- The market has a board of directors.
- The board of directors has officers.
- The board of directors has committees.

Labor resources tools:

- Manager compensation: managers are paid or are volunteers.
- The market uses additional employees.
- The number of hours the manager worked in-season
- The number of hours the manager worked off-season

Each management tool is discussed and examined here in relation to the market size categories.

Site Management Tools

Many markets use a specific layout (bowling alley, horse shoe, circular, and so on) to arrange vendors. A plan for market layout can be as simple as a mental visualization or, when coupled with a site map as discussed here, it can be fairly detailed. Markets differ in their need to have a specific layout. Having few vendors, some Micro and Small markets arrange themselves very informally.

As markets increase in size, specifically designed layouts for markets are advantageous to enhance the flow of traffic and for other reasons. Although smaller markets vary as to whether their managers design a layout, the managers of all Medium and Large markets use a specific layout (Table 2, page 8). The decision concerning whether or not a layout is used for very small markets may reflect a manager's personality as much as it does the desire to

A large market lacking a planned layout would be chaotic…

manage the market efficiently. A large market lacking a planned layout would be chaotic and would quickly create discord among vendors and confusion among customers.

Table 2. Site Management Tools and Market Size

Management Tool	Micro (5–8) n=8	Small (9–30) n=20	Medium (31–55) n=12	Large (56–90) n=10
Manager designs market layout[2]	75%	75%	100%	100%
Arrange vendors to meet goals[3]	50%	80%	100%	90%
Spaces assigned using a site map[4]	38%	65%	100%	100%

[2–4]See notes on page 17.

In addition to a layout plan to organize the market, managers arrange vendors to meet aesthetic and social goals including: keeping agricultural products visible at market entrances, enhancing traffic flow, keeping the market visually interesting, and reducing friction between specific vendors. Again, smaller markets are mixed as to whether they use or need to use this management tool, whereas Medium and Large markets virtually always use this tool (Table 2).

Another tool used by managers is a detailed site map with vendor spaces delineated. Prior to market day, a site map is used to assign specific vendors to specific spaces. Site maps correspond to markings created with chalk, traffic pylons, and paint at the market site on market day, identifying the spaces. Markets differ in their use of site maps according to the size of the market. Again, smaller markets may or may not use a detailed map to assign spaces, but all Medium and Large markets do (Table 2).

Two other studies have investigated how managers organize the market site. In a Kansas study of small farmers' markets (Hughes and Mattson 1992), it was noted that of the eight markets that had some type of formalized organization, only two assigned stalls on a seasonal basis. All the other markets assigned stalls on a first-come, first-served basis. A survey of New Jersey farmers' market managers (Govindasamy et al. 1998) revealed: "In order to assign the spaces available in the facility, different criteria were used. First come first served was the prevalent method and most markets tended to honor seniority…. Some markets, however, assigned spaces according to the size of the farmers' operations or by lottery drawing" (p. 7).

With regard to positioning vendors to meet specific market goals, the same study indicated that 58 percent of managers did not take into consideration similarity of products when deciding whether to place vendors side by side. Only one manager stated that farmers' personalities were taken into account when planning the market layout (Govindasamy et al. 1998). As described above, the overwhelming majority of Oregon farmers' markets assign vendor spaces in advance and arrange vendors to meet specific market goals.

Market Governance Tools

With the exception of some of the smallest markets, almost all markets use written rules to assist in managing the market (Table 3). According to market managers, market rules govern the day-to-day operations of a market. They define what the market is trying to accomplish: how it appears, who sells, and what is sold. Rules also reflect government regulations regarding licensing, certification, and food handling. They are often written to provide checks on vendors who have attempted to circumvent established rules or because incidents have illuminated a weakness in previous rules.

As markets grow in size, bylaws become more common.

Table 3. Market Governance Tools and Market Size

Management Tool	Micro (5–8) n=8	Small (9–30) n=20	Medium (31–55) n=12	Large (56–90) n=10
Written rules	63%	90%	100%	90%
Bylaws[5]	25%	50%	83%	80%
Board of directors[6]	25%	65%	92%	90%
Board of directors has officers[7]	0%	55%	92%	90%
Board of directors has committees[8]	0%	25%	59%	70%

[5–8]See notes on page 17.

Although the survey data did not reveal whether the complexity of market rules increase as markets increase in size, an interesting additional question for the survey would have been: "How many pages are your market rules?" Some markets have only a few photocopied pages that are provided to vendors. Other markets have extensive sets of rules. During the focus-group sessions, some managers revealed the size of their market rules. For instance, according to a manager of one Small and two Medium-size markets, "I try to stay on one 11 x 17 sheet. We're at the limit. Margins and point size got smaller." In contrast, an urban farmers' market that manages three Medium- and Large-size markets publishes a 52-page Vendor Handbook as a guide for its vendors.

While most markets have written rules of some type, somewhat fewer have bylaws. Bylaws are generally associated with formal governance arrangements such as having a board of directors or being defined as a corporation. Bylaws set out the "rules" for how board members are selected, how officers are elected, and so forth. As markets grow in size, bylaws become more common (Table 3).

Boards of directors are another management structure strongly associated with market size. As markets grow, they add boards of directors. Table 3 again shows that smaller markets have a mixture of approaches, while the Medium and Large markets generally have boards of directors. The two larger markets (one Medium and one Large) that do not have boards of directors were both organized and/or operated by government or community entities (city government or downtown association). According to market managers, prior to having a formal board of directors, a market may use an informal advisory committee made up of vendors or, as one manager commented, a manager may use a "kitchen cabinet" of a few hand-selected vendors to offer input.

Boards of directors run a continuum from quite informal to very formal. They may simply be an advisory committee using the term "board of directors," or they may be highly formalized boards that follow strict protocols. In addition, the role the board assumes differs from market to market. Some are very "hands on" or active, while others work exclusively in an advisory capacity.

Some boards of directors govern via egalitarian or consensus approaches. As markets increase in size, they elect officers to manage specific tasks or provide leadership for a component of market management such as overseeing its financial condition. Of the 35 markets that have boards of directors, only the smaller markets do not have officers as part of their board structure (Table 3). Boards of directors and bylaws are required for markets that have the legal tax status of a "not-for-profit" organization in Oregon. Many markets, however, use these tools even though they do not have this status.

Very few studies have documented the use of boards of directors by farmers' markets. Payne (2002) reports that 63 percent of farmers' markets from a national sample use "vendor operated boards" (not defined) (Table 4). Payne's data show that the use of boards is consistent across market sizes. In Oregon, 70 percent of markets use boards of directors. But in contrast to the national data, the use of boards is closely related to market size in Oregon, with smaller markets less likely to use one and larger markets more likely to use one.

Table 4. Results of National Survey: Market Size and Vendor Boards

Market Size Category	Use Vendor-Operated Board
Less than 10 farmers	62%
10–25 farmers	64%
26–50 farmers	60%
More than 50 farmers	61%

The addition of committees to boards adds another layer of organizational structure. Committees may be standing or ad hoc and generally indicate that there is a level of complexity in managing a market that requires tasks to be delegated to segments of the board. These tasks might include functions that were handled by a manager within the organization of a smaller market. The addition of committees to boards of directors is associated with larger markets (Table 3).

Labor Resource Tools

Manager Compensation and Market Size

A good starting point for examining the relationship of management complexity to market size is whether or not the manager is paid. Fourteen markets (28 percent) use volunteer managers and 36 markets (72 percent) use paid managers. Table 5 demonstrates a clear relationship between the size of markets and the status of the manager. Specifically, there are no Medium or Large markets managed by volunteers. The implication is that the management of markets of this size involves a level of time and effort beyond what volunteers are able or willing to commit. This relationship between the size of the market and volunteer management is noteworthy. Additional details on the relationship between volunteer managers and market distress are provided in *When Things Don't Work: Some Insights into Why Farmers' Markets Close* (Stephenson, Lev, and Brewer 2006b).

Table 5. Labor Resource Tools and Market Size

Management Tool	Micro (5–8) n=8	Small (9–30) n=20	Medium (31–55) n=12	Large (56–90) n=10
Manager is volunteer[9]	55%	47%	0%	0%
Manager is paid[10]	45%	53%	100%	100%
Market uses additional employees[11]	0%	20%	92%	100%
Additional employee FTE per market (mean)[12]	0	0.10	0.54	0.80
Hours per week in-season per market (median)[13]	7.0	10.0	20.0	29.0
Hours per week off-season per market (median)[14]	2.0	3.0	10.5	15.5

[9–14]See notes on page 17.

A survey of New Jersey farmers' market managers (Govindasamy et al. 1998) revealed that about 29 percent of managers are volunteers. The authors do not describe the scale of the markets in this study, nor do they associate market scale with any of the other variables they examined. Managers of farmers' markets in the mid-Atlantic region (Oberholtzer and Grow 2003) revealed that about 44 percent are volunteer managers. Again, the use of volunteer or paid market managers was not examined by market scale. The Kansas study of small farmers' markets (Hughes and Mattson 1992) indicated that three of the eight coordinators (38 percent) of organized markets were volunteers.

Payne's (2002) national survey of farmers' markets reports that 30 percent of all markets use paid managers. Of the markets with paid managers, 51 percent were full-time (15 percent of the total sample) and 49 percent were part-time (14 percent of the total sample). Payne (2002) did report a link between market size categories and both paid managers and with full- or part-time paid managers (Table 6). His data show that while only 18 percent of markets with fewer than 10 farmers use a paid manager, 71 percent of markets with more than 50 farmers employ a paid manager. In contrast, 28 percent of Oregon's markets use a volunteer manager, and 72 percent use a paid manager. All Oregon markets with more than 30 vendors use a paid manager.

Table 6. National Survey Results—Market Size and Full- and Part-Time Managers

Market Size	Part-Time	Full-Time	Total
Less than 10 farmers	10%	8%	18%
10–25 farmers	10%	14%	24%
26–50 farmers	18%	20%	38%
More than 50 farmers	46%	25%	71%

Many markets use additional employees to assist in carrying out both general and highly specialized tasks. There is a strong relationship between market size and the use of employees. Micro and Small markets rarely hire additional paid employees (Table 5). Remember that volunteers manage many of these markets, and it would be unlikely for paid employees to be used under those circumstances. Conversely, virtually all Medium and Large markets used additional paid employees. Table 5 further shows that as markets increase in size, the total full-time equivalent (FTE) for all employees increases during the market season.

There is a strong relationship between market size and the use of employees.

Market Size and Manager Effort

The number of hours managers work varies by the number of markets they manage, whether it is the market season or the off-season, and the size of the market(s) they manage. As a market increases in size, the management of the market demands more hours of work. Table 5 shows the median number of hours worked per manager per market during the market season for the market size categories.[15] Managers of Micro markets work a median of 7 hours per week during the market season, ranging from 1 to 15 hours per week. Managers of Small markets work a median of 10 hours per week during the market season, ranging from 2 to 30 hours per week. Managers of Medium markets work a median of 20 hours per week, ranging from 8 to 25 hours per week. Managers of Large markets work a median of 29 hours per week, ranging from 16 to 40 hours per week.

Table 5 also clearly demonstrates the progression in number of hours worked per manager per market during the off-season as the market size increases. Managers of Micro markets work a median of 2 hours per week during the off-season, ranging from zero to 15 hours per week. Eighty-three percent of these managers work 4 or fewer hours per week during the off-season. Managers of Small markets work a median of 3 hours per week during the off-season, ranging from zero to 15 hours per week. Managers of Medium markets work a median of 10.5 hours per week, ranging from zero to 25 hours per week, with nearly 67 percent working 11 or fewer hours per week. Managers of Large markets work a median 15.5 hours per week during the off-season, ranging from 7 to 40 hours per week. In summary, Table 5 clearly shows the increase in management effort defined as hours worked both during the market season and during the off-season as markets increase in size.

Farmers' market managers reviewed these results during focus group sessions and during the Project Advisory Committee review session. They agreed with these conclusions and helped flesh out some other management implications related to market size. One area they focused on was the off-season:

- "During the off-season, the kind of work changes too with the size, not just the hours. Involvement with bureaucracies, insurance, etc., not just taking calls from vendors."
- "I'm sending out vendor packets earlier because I couldn't handle the paperwork load last year."
- "I prioritize off-season tasks—no musicians booked in January!"
- "The off-season is getting shorter; the market is opening earlier, staying open longer, then there are special end of season and holiday markets. And, there's more to do during the off-season related to regulations. Plus negotiating and renewing insurance."

With increasing size comes an increase in product diversity and the demands for additional skill and responsibilities:

- "The breadth of knowledge is more too. Food Safety [Oregon Department of Agriculture, Food Safety Division] wants managers to know and enforce, vendors want farm inspections. A lot of regulation is put on managers."

- "We need to know as we add meat, kitchens, restaurants, what kind of information to give the vendors."

There are also the differences in organizational complexity and management effort as markets become large:

- "About 50 vendors is the perfect size. A market much larger than about 50 vendors is three times more difficult to manage."
- "With large markets, internal controls are a necessary piece of infrastructure. Financial issues are complicated."
- "For large markets there's more emphasis on mission and vision and strategic plan and goals and accountability. I now do more public relations and create an advertising plan. Budgets; my time has become more and more about planning, budgeting, etc."
- "There are some economies of scale but there's always something added to nullify them. They're there but they just get washed over by some other thing you're now expected to do."
- "Where my workload has changed over the last years is in finance, budgeting, accounting for budgets. A lot of time goes into that."

There are other qualitative differences between Medium and Large markets as well. Reflecting on the transition from a Medium market to a Large market, one manager commented:

- "This got me thinking about the evolution from starting 6 years ago. When I started, the markets were smaller and growing into larger markets. What did we have to put into place to make that change happen? What's different between managing a medium sized market and jumping into something large? It's the size of course; it brings you more problems. The main thing is you have to let go of so much. You can't be everywhere and you don't know what's happening at that other end of the market now. You have to trust more, have more structure, and have systems for enforcement of rules. You can't go around and make sure everybody's doing everything every week. You have a system where you go down one leg one week, the next the next. You try to hit things consistently, but you can't do it all. The nature of the relationships changes with the vendors. When it's a smaller market you have a much closer relationship. And so vendor problems are part of it; you have more vendor problems with a large market. They don't 'mind.' If you are at one end of the market, and they can't see you, they try to sneak in and try to load out early, whatever they want to do. There's a lot more time spent as policeman instead of as a friend and a confidant kind of relationship."

Table 7 (page 14) arranges the management tools in an order approximating the increase in management structure and complexity for the four market size categories.

"For large markets there's more emphasis on mission and vision and strategic plan and goals and accountability."

Table 7. Summary of Market Size and Management Structures

Management Tool	Micro (5–8)	Small (9–30)	Medium (31–55)	Large (56–90)
Manager is volunteer	55%	47%	0%	0%
Manager is paid	45%	53%	100%	100%
Design layout	75%	75%	100%	100%
Guidelines	63%	90%	100%	90%
Site map	38%	65%	100%	100%
Arrange vendors	50%	80%	100%	90%
Board	25%	65%	92%	90%
Bylaws	25%	50%	83%	80%
Board officers	0%	55%	92%	90%
Board committees	0%	25%	59%	70%
Additional employees	0%	20%	92%	100%
Median hours per week in-season per market	7.0	10.0	20.0	29.0
Median hours per week off-season per market	2.0	3.0	10.5	15.5
Additional employee mean FTE per market	0	0.10	0.54	0.80

To summarize, the analysis of market size and management tools revealed that as markets increase in size there is an increase in both the number of management tools and in management complexity. Each market creates internal structures within its available resources to manage external challenges. Each market size category has unique characteristics along a continuum from Micro to Large.

Micro-sized markets are very informal and are likely to have a volunteer manager. Because of the low number of vendors, many markets of this size do not use the site management tools used by larger markets. About 7 hours per week are devoted to managing these markets during the market season. Virtually none use any of the organizational structures associated with larger markets, such as boards of directors or bylaws.

Small markets are more complex than Micro markets and display many similarities to formal organization. Small markets are split equally between having paid managers and having volunteer managers. They are large enough to have rules or guidelines, and they arrange vendors' booths to meet specific goals. They have substantially more vendors than a Micro market, but they use only a few additional hours each week for in-season and off-season management.

The research identified the transition from a Small market to a Medium market as a critical point in a market's growth. There are significant differences in organizational structure between the two size categories that must be accommodated in order to successfully accomplish this transition. In all instances, Medium markets pay their manager; some use additional part-time employees and a more formalized structure of a board of directors, bylaws, and more detailed market rules. The number of hours required to manage a Medium-sized market is significantly higher than for a Small market.

Although there are many similarities between Medium and Large markets, there are major differences between these categories in increased complexity of labor and resources. The number of hours worked by the market managers per week during the season and the off-season is higher for Large markets than for Medium markets. Market managers described qualitative differences between these market size categories as well.

Market organizers should spend a considerable length of time deciding whether and how to open a new market.

Recommendations

Discussed here are three broad recommendations for enhancing the success of farmers' markets. The findings from this research support recommendations that can be implemented at the local community or at the individual market level. However, equally important are permanent, sustainable solutions that are based on monitoring and changing local, state, and federal policy to ensure continued enhancement of farmers' markets. Recommendations for attaining this type of change are more abstract.

Recommendation 1: Plan New Markets Carefully to Ensure Success

Market organizers should spend a considerable length of time deciding whether and how to open a new market. Another part of this research project documented that nearly half of new markets close in the first 4 years (Stephenson, Lev, and Brewer 2006b). Improved planning and market promotion in advance of opening may reduce some of the issues confronting markets in their first year of operation. An important part of the planning process is setting a goal for the size of the market in general, or by year, to ensure that resources match the market's planned size. Planning for size is the first step in creating a viable management organization that will survive current challenges and conflicts and have the ability to grow. More details on this are in Recommendation 2. Market size is influenced by: community population density, population subculture (interest in purchasing local food and experience of open air market), and other factors influencing the scale of a market from the demand side. Local farm settlement pattern (number and type of small farms), agro-ecozone (soils, climate, altitude), and other factors influence the scale of the market from the supply side. Organizers should carefully assess both whether there is sufficient population (demand) to support a market and whether there are sufficient growers (supply).

Recommendation 2: Management Resources and Organization Should be Appropriate for the Size of the Market

As pointed out in Recommendation 1, planning for the intended size of a market is an important step in creating an organization that will have the skill resources and financial resources for long-term operation. The research findings on market structure identified an association between markets of specific sizes and the management tools they used. Table 8 (page 16) uses icons to summarize recommendations for farmers' markets based on the four size categories used in this study. The icons represent whether a management tool is "Not Necessary," "Useful," "Necessary," or "Dangerous." Navigating changes between size categories is not easy. For instance, a market's financial situation may challenge its growth; e.g., there is a need for a paid manager, but the market cannot afford one. Funding limitations that constrain additional hours being worked during the season and off-season may make a market less efficient or threaten its stability.

Table 8. Summary of Management Recommendations for Market Size Categories

Management Tool	Micro (5–8)	Small (9–30)	Medium (31–55)	Large (56–90)
Volunteer manager	😐	☺	💣	💣
Paid manager	😐	☺	☺	☺
Design market layout	◆	☺	☺	☺
Market guidelines	☺	☺	☺	☺
Site map	◆	☺	☺	☺
Arrange vendors to meet goals	😐	☺	☺	☺
Board of directors	😐	☺	☺	☺
Bylaws	◆	☺	☺	☺
Board officers	◆	◆	☺	☺
Board committees	◆	◆	◆	☺
Additional employees	◆	😐	☺	☺
Plan for minimum hours for a manager per week per market in-season	7	10+	20+	30+
Plan for minimum hours for a manager per week per market off-season	2+	3+	10+	15+
Plan for minimum additional employee hours per week per market	0	4+	20+	32+

◆ = Not necessary ☺ = Necessary 😐 = Useful 💣 = Dangerous

Recommendation 3: Applied Research and Outreach are Necessary for the Success of Farmers' Markets

There is a clear need for continued applied research supporting farmers' markets and educational outreach to managers, boards of directors, and vendors. Applied research has provided and will continue to provide markets, individually and collectively, the information they need to impact public policy. Applied research can also assist markets in making strategic management decisions. In addition, training in farmers' market management, farmers' market-based business management, concepts of marketing, innovative crop production techniques, and other subject areas may assist managers and vendors in maintaining their ability to compete with commercial businesses that may copy products, appearances, and techniques.

Notes

[1] The farmers' market categories integrate both quantitative and qualitative data. Categories formulated from the frequency distribution for market size and research participant input were examined statistically using analysis of variance (ANOVA) and Tukey's (HSD) test for honestly significant difference. The market size categories were reviewed and validated during manager focus group sessions.

[2] $t(48) = -4.2245$, $p<0.0001$

[3] $t(48) = -2.014$, $p<0.05$

[4] $t(48) = -5.873$, $p<0.0001$

[5] $t(48) = -2.897$, $p<0.01$

[6] $t(48) = -3.745$, $p<0.001$

[7] $t(34) = -6.302$, $p<0.0001$. The values for markets that do not have boards of directors were not used in the statistical calculation.

[8] $t(35) = -3.268$, $p<0.005$. The values for markets that do not have boards of directors were not used in the statistical calculation.

[9] $t(48) = -4.917$, $p<0.0001$

[10] $t(48) = -4.917$, $p<0.0001$

[11] $t(48) = -8.628$, $p<0.0001$

[12] $r(50) = 0.773$, $p<0.0001$

[13] $r(47) = 0.705$, $p<0.0001$

[14] $r(47) = 0.608$, $p<0.0001$

[15] There are seven managers in this study who manage more than one market. In order to examine the impact of market size on manager effort and to avoid problems associated with managers who manage multiple markets of differing sizes, the values used here are proportioned to reflect per-manager per-market effort. This does not take into account additional effort managers of multiple markets may devote to specific markets during startup or to dealing with a variety of issues or efficiencies of scale from managing more than one market.

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