

AN EXPLORATORY STUDY OF COLLABORATION AMONG FARMERS AND
FARMERS' MARKET MANAGERS IN SOUTHEAST MICHIGAN

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ABSTRACT

AN EXPLORATORY STUDY OF COLLABORATION AMONG FARMERS AND FARMERS' MARKET MANAGERS IN SOUTHEAST MICHIGAN

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This exploratory study investigated motivations of farmers and farmers' market managers (FM MNGR) in Southeast Michigan to collaborate. Study methods included a survey with open-ended questions in the form of a questionnaire. The motivation of farmers and FM MNGR's was examined through the lens of social exchange theory and expectancy theory by measuring expectancy and valence. The study invited 90 farmers' market managers and 147 farmers to participate, with a 38% (n = 34) response rate for managers and a 26% (n = 38) response rate for farmers. Both farmers and farmers' market managers had relatively high mean scores of expectancy and valence, with FM MNGRs expectancy mean slightly higher than FM MNGRs, and farmer valence mean slightly higher than FM MNGRs valence. Both groups of participants had high interest in local food movements, but managers viewed collaboration as more important to local food movements than farmers did. Additional findings suggest strategic approaches on how to engage and communicate with other potential food system stakeholders to facilitate collaboration. These findings are most applicable to Southeast Michigan local food system practitioners, food system researchers (applied and theoretical), and local government planning and policy officials.

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I would additionally like to thank my graduate student colleagues in the CARRS Department at Michigan State University for their never-ending support and encouragement. I will always be grateful for their camaraderie and for the friendships that have been forged. Lastly, I thank my family, friends, and my lovely daughter for their heartfelt support, encouragement, and patience in my personal and professional life as I worked to achieve my goals.

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CHAPTER 1

Introduction and Background

Overview of Project

In 2011, a local report, entitled *Oakland County Farmers' Market*, was submitted to Oakland County Parks and Recreation (OCPR) Department at the completion of a funded study conducted in partnership with Michigan State University (MSU). This study and report resulted in strong recommendations for OCPR to manage the Oakland County Farmers' Market (OCFM) in order to further fulfill its mission to provide regional recreation opportunities, enhance quality of life, and support economic prosperity for Oakland County's residents and visitors while protecting the county's natural resources. Several of the recommendations resulting from this study suggested further analysis to be able to address OCPR opportunities surrounding the OCFM.

To build upon this initial study, OCPR and MSU continued its partnership with funding from the Michigan Economic Development Corporation's Farmers Market Grant Program. The aim of this continued work was to conduct a more comprehensive study of Oakland County's agricultural assets and opportunities, as well as to study those of the surrounding Southeast Michigan counties. Specifically, this project addresses the potential role of collaboration (or lack of) on brand development, market promotions, consumption-chain expansion, and the overall influence of local food systems in building healthy and vibrant communities in Oakland County.

The purpose of this thesis research is to explore the motivation to collaborate between two segments of food system players, farmers and farmers' market managers, in Oakland County and the surrounding region.

Southeast Michigan and the Need for Local Food System Collaboration

Michigan is widely known for its agricultural diversity, being second only to California, and it is home to various regions where agriculture remains a significant segment of the economy. Agricultural production and industry employ over one million Michigan residents and contribute over \$73 billion to the state's economy (USDA, NASS, Michigan Agricultural Statistics, 2010-2011). In the Southeast Michigan region of Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw and Wayne counties (herein referred to as the "study area") there are over 5,660 farms, just over ten percent of farms in Michigan (USDA NASS, 2007). In 2007, this region produced over six percent of the States' total market value of agricultural products.

Due to increasing population and urban sprawl, the Southeast Michigan Council of Governments (SEMCOG) predicts a minimum 36% increase in developed land from 2000-2030 (SEMCOG, 2003). Coupled with increasing land value for residential development (Buck, Kaminski, Stockmann, and Vail, 2007), this region mirrors the continuing state trend of cropland shrinkage (19.5%) from 1982 to 2007 due to residential and commercial development (Cocciarelli, Smalley, and Hamm, 2011). Despite this trend of farmland shrinkage, there has been an increase in the development of collaborative entities such as The Michigan Food Policy Council (MFPC), the Food System Economic Partnership (FSEP) in southeast Michigan, and the Michigan Land Use Institute (MLUI) in northwest lower Michigan (Conner, Knudson, Hamm, and Peterson, 2008) as well as other grassroots initiatives.

Despite this growth and development of collaborative entities, local food system stakeholders often experience barriers (perceived and actual) that inhibit the collaboration necessary to sustain regional food systems (Matapoulos, Vlachopoulou, and Manthou, 2007). Several studies have documented opportunities or facilitators for collaboration within local and

regional food system (Matapoulos et al., 2007; Dollahite, Nelson, Frongillo, and Griffin, 2005). Identification of these barriers and facilitators is in an embryonic stage of research, with focus tending to be on logistics, organizational, and marketing issues (Day-Farnsworth and Morales, 2011). This leaves a gap of understanding as to how values and relationships interact with logistics and affect food system stakeholder motivation to collaborate in regional food systems. Several scholars recommend further research into these issues (Marsden and Smith, 2005; Seyfang, 2008; Wargenau and Che, 2006).

The southeast region of Michigan is a key location for examining collaborative relationships because it is currently working to develop a sustainable regional food system in spite of common infrastructural difficulties and despite the growing presence of local food networks and food hubs (Barham, Tropp, Enterline, Farbman, Fisk, and Kiraly, 2012). As growth continues, there is evidence that collaborative initiatives in southeast Michigan could be improved for various agri-food system entities (Che, Veeck, and Veeck, 2005). However, creating and sustaining collaboration among local food system stakeholders means understanding that stakeholders have limited resources (e.g., time, money) that may inhibit their collaborative efforts (Starr et al., 2003). Stakeholders engaging in collaboration initiatives need to know that the resources they expend will ultimately provide beneficial outcomes of either a tangible or intangible nature.

To understand the nature of collaboration in this context, this study uses social exchange theory and expectancy theory to examine the motivations of farmers and farmers' market managers in southeast Michigan to participate in collaborative initiatives. Specifically, this study addresses the following research questions as guided by the noted theoretical frameworks:

1. What are the perceived motivations of farmers and farmers' market managers to engage in collaborative initiatives?
2. What are the perceived barriers to collaboration for each group of participants?
3. What are the benefits of various collaborative initiatives to farmers and farmers' market managers?
4. What are the resources farmers and farmers' market managers expend when engaging in collaborative initiatives?
5. What are the alternatives for farmers and farmers' market managers to participating in collaborative initiatives?

Thesis Organization

Survey methods are utilized to examine participant motivation to engage in collaborative initiatives with other food system stakeholders. Farmers and FM MNGRs also had opportunity to provide qualitative feedback via open-ended questions. This research protocol was approved by the Social Science, Behavioral, Education Institution Review Board (SIRB) at Michigan State University.

Chapter Two was designed to be submitted as a single manuscript to the *Agriculture and Human Values* journal or an agricultural and social science journal. Chapter two describes participant characteristics and motivation to engage in collaborative initiatives with other food system stakeholders and includes an introduction, literature review, results, discussion, conclusion, and implications/recommendations section. This chapter also discusses information concerning values, knowledge, and strategic approaches on how to engage and communicate with other potential food system partners to facilitate collaboration. Local food system practitioners, food system researchers (applied and theoretical), and local government planning

and policy officials should consider these results and then use them to inform sustainable development of collaborative initiatives within local and regional food systems.

Chapter Three presents a discussion of study limitations and recommendations for future research. Specifically, this chapter discusses how the theoretical frameworks used in this exploratory study can help improve and strengthen food systems research. The Appendices are comprised of data collection instruments and materials.

Definitions

Terms, as used in this study, are:

Collaboration: a temporary social arrangement in which two or more individuals work together toward a singular common end requiring the transformation of materials, ideas, and/or social relations to achieve that end (Roberts and Bradley, 1991).

Collaborative Initiatives: interrelated activities a group of individuals have agreed to work together on in order to address shared problems and/or to achieve a common end or goal (Melaville, Blank, and Asayech, 1993; Roberts and Bradley, 1991).

Expectancy: a person's belief of the likelihood their effort will lead to an acceptable level of performance (Vroom, 1964).

Food Hub: an enterprise that facilitates "the aggregation, storage, processing, distribution, and/or marketing of locally or regionally produced food products (Barham, 2011, p.6).

Food Network: known as "value chains" that is a values-based strategic business partnerships featuring mid-scale agri-food enterprises that create and distribute responsibilities and rewards equitable across the supply chain, and operate effectively at regional levels with significant volumes of high-quality, differentiated food products (Stevenson and Pirog, 2008).

Food System: a process that includes the production of agricultural goods, purchasing and processing of those goods, distribution and marketing of value-added products, end-user preparation and consumption, and waste disposal (Pirog, Van Pelt, Enshayan, and Cook, 2001).

Instrumentality: a person's belief that a behavior/performance will result in desired outcome (Vroom, 1964).

Local food system: a food system with geographic boundaries ranging from 100-400 miles where the product was produced, distributed and consumed within these boundaries (Jensen, 2010; Ruhf and Clancy, 2010).

Local food system stakeholders: farmers, brokers, processors, distributors, produce dealers, chefs, grocers, farmers' markets, farmers' market managers, and consumers.

Motivation: to be moved to do something; to be energized or activated toward an end (Ryan and Deci, 2000).

Regional food system: a food system that works to meet the health, social, economic, and environmental needs of communities in that region while supporting farmer and consumer connections (Pirog and Bregendahl, 2012); and may be comprised of smaller local food systems (Ruhf and Clancy, 2010).

Valence: the value, positive or negative, a person places on the outcome (Hancock, 1995; Vroom, 1964).

Delimitations

There are several delimitations to this study. To begin with, the concept of *local*, which is used throughout this study, may cause confusion among study participants. As local and regional food systems continue to manifest in all shapes and sizes, a standardized concept of local remains imprecise among many food system players (Dunne, Chambers, Giombolini, and Schlegel, 2010). Local as an evolving concept will continue to be shaped and defined by those who utilize it, but for the purposes of this study it will not be used interchangeably with regional, but will be demarcated as a component within a regional food system (Ruhf and Clancy, 2010).

The researcher delineated a geographic area by county to establish boundaries for the regional food system area examined in this study. Although many studies use this approach (Darby, Batte, Ernst, and Roe, 2008; Dunne et al., 2010; Kloppenburg, Hendrickson, and Stevenson, 1996; Starr, Card, Benepe, Auld, Lamm, Smith, and Wilken, 2003), it impresses upon participants a pre-defined geographic boundary that may not align with their conception of locale and region. This may possibly affect the way participants communicate and frame their motivations to collaborate in their responses for this study.

Lastly, study participants were defined as being a farmer or a farmers' market manager, yet these roles are not always easily defined within a food system. Overlap of these roles may be observed for each type of participant depending on the context in which they are operating. To avoid confusion, this study will separate and define the role of farmer and farmers' market manager in the following ways:

1. A farmer is a person who cultivates land or crops or raises animals (as livestock or fish) ("farmer," n.d.).

2. A farmers' market manager is the individual (may be a volunteer and/or paid position) who runs a farmers' market on a day-to-day basis and is responsible for making operational decisions (Hamilton, 2002, as cited in Stephenson, 2008, p.86).

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LITERATURE CITED

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CHAPTER 2

AN EXPLORATORY STUDY OF COLLABORATION AMONG FARMERS AND FARMERS' MARKET MANAGERS

Abstract

This exploratory study investigated motivations of farmers and farmers' market managers (FM MNGR) in Southeast Michigan to collaborate. Study methods included a survey with open-ended questions in the form of a questionnaire. The motivation of farmers and FM MNGR's was examined through the lens of social exchange theory and expectancy theory by measuring expectancy and valence. The study invited 90 farmers' market managers and 147 farmers to participate, with a 38% (n = 34) response rate for managers and a 26% (n = 38) response rate for farmers. Both farmers and farmers' market managers had relatively high mean scores of expectancy and valence, with FM MNGRs expectancy mean slightly higher than FM MNGRs, and farmer valence mean slightly higher than FM MNGRs valence. Both groups of participants had high interest in local food movements, but managers viewed collaboration as more important to local food movements than farmers did. Additional findings suggest strategic approaches on how to engage and communicate with other potential food system stakeholders to facilitate collaboration. These findings are most applicable to Southeast Michigan local food system practitioners, food system researchers (applied and theoretical), and local government planning and policy officials.

Introduction & Research Purpose

Michigan is widely known for its agricultural diversity, being second only to California, and it is home to various regions where agriculture remains a significant segment of the

economy. Agricultural production and industry employ over one million Michigan residents and contribute over \$73 billion to the state's economy (USDA, NASS, Michigan Agricultural Statistics, 2010-2011). In the Southeast Michigan region of Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw and Wayne counties (herein referred to as the "study area") there are over 5,660 farms, just over ten percent of farms in Michigan (USDA NASS, 2007). In 2007, this region produced over six percent of the States' total market value of agricultural products.

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a gap of understanding as to how values and relationships interact with logistics and affect food system stakeholder motivation to collaborate in regional food systems. Several scholars recommend further research into these issues (Marsden and Smith, 2005; Seyfang, 2008; Wargenau and Che, 2006).

The southeast region of Michigan is a key location for examining collaborative relationships because it is currently working to develop a sustainable regional food system in spite of common infrastructural difficulties and despite the growing presence of local food networks and food hubs (Barham, Tropp, Enterline, Farbman, Fisk, and Kiraly, 2012). As growth continues, there is evidence that collaborative initiatives in southeast Michigan could be improved for various agri-food system entities (Che, Veeck, and Veeck, 2005). However, creating and sustaining collaboration among local food system stakeholders means understanding that stakeholders have limited resources (e.g., time, money) that may inhibit their collaborative efforts (Starr et al., 2003). Stakeholders engaging in collaboration initiatives need to know that the resources they expend will ultimately provide beneficial outcomes of either a tangible or intangible nature.

To understand the nature of collaboration in this context, this study uses social exchange theory and expectancy theory to examine the motivations of farmers and farmers' market managers in southeast Michigan to participate in collaborative initiatives. Specifically, this study addresses the following research questions as guided by the noted theoretical frameworks:

1. What are the perceived motivations of farmers and farmers' market managers to engage in collaborative initiatives?
2. What are the perceived barriers to collaboration for each group of participants?

3. What are the benefits of various collaborative initiatives to farmers and farmers' market managers?
4. What are the resources farmers and farmers' market managers expend when engaging in collaborative initiatives?
5. What are the alternatives for farmers and farmers' market managers to participating in collaborative initiatives?

Results of this study are important to regional food system stakeholders interested in engaging farmers and farmers' markets in the development of regional food systems.

Literature Review

The theoretical and research literature on regional food systems is somewhat limited, but plentiful in regard to the broader topic of local and alternative agriculture. Literature relating to social exchange theory and expectancy theory has been used to study motivation in many contexts, but these theories have yet to be used in studies involving regional food systems. Literature on collaboration does not present a general theory of collaboration that can be used for this study, but remains malleable to the "contexts, interests and applications to those who are defining it" (Elliott, 2007, p. 30). Therefore, literature was reviewed from agriculture, social sciences, tourism, business and management, and leisure research. Related literature was organized into the following topical areas: an overview of regional food systems, collaboration and regional food systems, motivations for collaboration, social exchange theory, and expectancy theory.

Regional Food Systems

In response to the increasing demand from consumers for local, healthier, and more accessible food, stakeholders (consumers, farmers, food and farm policy advocates, and community organizers) have collaborated to expand local food systems and generate what are now called regional food systems (O'Hara, 2011). Just as with local food systems, the concept of a regional food system relies on many assumptions and varies in definition. For the purpose of this study, a regional food system is considered a system that is often comprised of local food system entities (Ruhf and Clancy, 2010) that support farmer and consumer connections while working to meet various community needs on a larger (regional) scale (Pirog and Bregendahl, 2012) (see Figure 2.1). Stakeholders comprising a regional food system exist at many different scales and include, but are not limited to farmers (producers), direct to consumer markets such as farmers' markets and community supported agriculture (CSA) farms, distributors, and consumers (the general public).

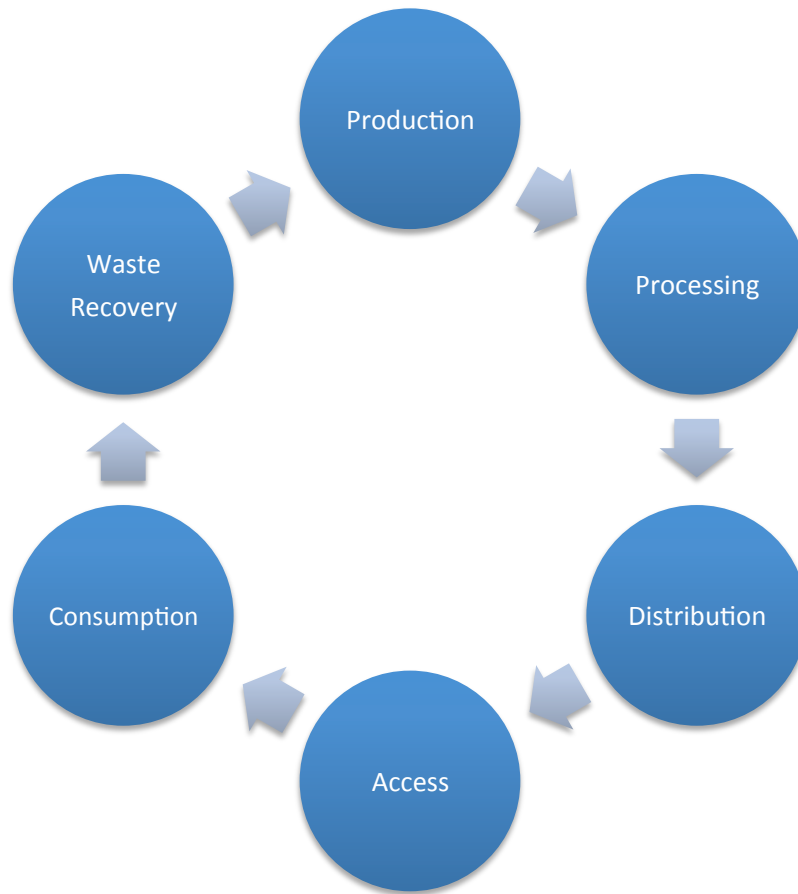


Figure 2.1 Components of a Local/Regional Food System

For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this thesis.

A regional food system is not only comprised of several local food systems, but is embedded within a context of the regions' political dimensions, socio-economic factors, landscape characteristics, and the interplay of the rural and urban communities within that region (Ruhf and Clancy, 2010). Because regional food systems operate within and in-between regions,

it presents a challenge as to how researchers identify regional food systems, how collaboration is fostered within regional food systems and how its impacts are evaluated within systems.

With the continued growth of regional food systems (O'Hara, 2011), it has become critical to develop a framework for evaluating collaboration success and sustainability around these systems. Evaluation and analysis can assist in developing a model for examining future collaborations for regional food systems. Researchers have developed some methods such as using bio-regions to geographically delineate regional food systems for analysis, or using the foodshed concept as a unit of analysis to understand the flow of food within or among regions (Darby et al., 2008; Dunne et al., 2010; Kloppenburg et al., 1996; Starr et al., 2003). These methods have allowed researchers to identify the need for improvement of the following components of regional food systems: support for direct marketing (including farmers markets and Farm to School programs), increasing farm gate pricing, developing better infrastructure, increasing funding for local and regional food systems, and increasing coordination/collaboration among relevant agencies (Starr et al., 2003; O'Hara, 2011; Darby et al., 2008; Kloppenburg et al., 1996). But these studies fail to address the dynamics of collaboration and their influence on a regional food system.

One study reviewed existing strategies and initiatives of local food systems and identified three key components for the successful development of a regional food system (Feenstra, 1997). Of these components, collaboration is named second and calls for the participation of stakeholders representative of the diversity of the communities embedded within the regional food system (Feenstra, 1997). But again, there is no explanation as to how to identify, foster, or evaluate collaboration within a regional food system.

Finally, the increasing presence of regional food systems has also sparked the need for regional planners to begin incorporating food systems into their comprehensive plans (Evans-Cowley, 2011; Raja, Born, and Russell, 2008). This approach presents an opportunity for collaboration not only between local food systems and food system stakeholders, but also between various governmental sectors, environmental and land policy groups, social justice advocates, and economists. Unfortunately there are few models available to guide regional food system advocates in facilitating this level of collaboration. Explored in the next section is the concept of collaboration in relation to regional food systems.

Collaboration

Considering the many ways collaboration is central to regional food systems, the emergence of collaborative organizational structures such as food hubs, regional networks, or even communities of practice around food systems is not a surprise. Despite some differences in how these concepts logistically operate, the overarching similarity is that they all focus on developing partnerships and collaborations to advance a shared mission or purpose concerning local agriculture and food.

The concept of collaboration specific to a regional food system incorporates much more than agriculture and food (as stated above in the discussion on regional food systems). Collaboration, for this study, is viewed as an interpersonal relationship that includes many levels of communication, joint strategies, and accomplishments that contribute to a common product or goal (Bronstein, 2003; Dollahite et al., 2005). It should also be noted that collaboration among local food system players does not necessarily equate a regional food system; but regional food systems can build *from* collaboration.

The few studies that explore the benefits and barriers of collaboration in regional food systems typically use supply or value chain analysis (Bloom and Hinrichs, 2010). Supply chain analysis addresses five major areas organized by the following categories: (1) the nature of the production process; (2) the economic and social organization of food production; (3) the use and management of labor; (4) the role of scientific research and extension activities; and (5) the organization of marketing and distribution activities (Buttel, F., Larson, O., and Gillespie Jr. G., 1990 as cited by Murdoch, 2000). Of these varying and diverse categories, the most frequently examined supply chain activities are: procurement, inventory management, product design and new product development, manufacturing, transportation/distribution, sales, demand management, and customer service (Matopoulos et al., 2007); supply chain analysis leaves out much of the social and relational components that encompass collaboration in regional food systems. The supply chain approach is common in studies focused on conventional and commodity agriculture, but is now being adapted and applied to alternative (local and regional) agriculture systems.

One particular study uses a modified framework of supply chains called value chains to evaluate the process of traditional food distribution networks as they transition toward incorporating local food into their networks (Bloom and Hinrichs, 2010). Value chains can be defined as “long-term networks of partnering business enterprises working together to maximize value for the partners and the customers of a particular product or service” (Stevenson and Pirog, 2008, p. 122). This modified version of the supply chain framework allows researchers to focus alternative (local or regional) food system analysis on characteristics that traditional supply chain frameworks do not include. Value chain analysis considers characteristics such as a shared vision, information, and decision making among partners, high levels of performance combined

with high levels of trust and commitment to the welfare of all participating partners; all of these assist mid-size local food system stakeholders to better engage and collaborate in regional food systems (Stevenson and Pirog, 2008).

Of particular interest in the value chain framework is the issue of needing a high level of trust for success. Trust in this sense refers to “the fairness, stability, and predictability of the procedures and agreements among strategic partners” (Stevenson and Pirog, 2008). Without trust, cultivating collaboration in the face of competition becomes impractical. Several studies on alternative and regional food systems highlight the critical significance of trust in the success and sustainability of collaborative efforts (Ambrose et. al., 2010; Stevenson and Pirog, 2008). But there is very little research as to how this trust is fostered and nurtured among local food system stakeholders, and how this impacts the motivation of local food system stakeholders to build collaborations (Matopoulos et al., 2007).

Researchers have identified barriers to collaboration within the agri-food system such as lack of infrastructure, financial support, and institutional support (Vogt and Kaiser, 2008) that inhibit collaborative efforts even if local food system stakeholders are willing to collaborate. For those that do engage in collaborative efforts, they often limit their activities due to issues such as reliability, convenience, seasonal constraints, and price (Starr et al., 2003). These studies have identified issues that center on lacking infrastructure within regional food systems. But collaboration is not just about working together to provide infrastructure for the organizational and tactical needs of a regional food system. Collaboration goes beyond normal business-related connections and includes not only the infrastructural components, but also the relational and relationship components (trust, commitment, etc.) built among regional food system stakeholders (Matopoulos et al., 2007). Setting aside the infrastructural benefits and barriers identified by

previous studies, this study is interested in *why* collaborations are pursued by local food system stakeholders. Thus, this study focuses on the motivations of farmers and farmers' market managers to collaborate with other regional food system stakeholders.

Motivations

The above review illustrates the common ways researchers examine regional food systems, but past studies do not provide much depth as to the elements that motivate food system stakeholders to engage in collaborations. Many studies focus on identifying the benefits and barriers for collaboration within a regional food system (Che et al., 2005; Wargeenau and Che, 2006; Pirog and Bregendahl, 2012), and often presuppose these benefits are motivators for collaboration. Benefits frequently identified and emphasized are organizational, tactical, and economic benefits. Yet, as already discussed and reinforced within the literature, regional food systems incorporate and represent more than purely infrastructural or economic means and goals for its participants. Because of the added contextual and relational components, it is inappropriate to assume infrastructural and economic benefits for collaborating in a regional food system epitomize the motivating factors for local food system stakeholders. In fact, different stakeholders may obtain very diverse benefits compared to other collaborating stakeholders, and these benefits may or may not be of value to every stakeholder. Because of this, it is important to separate benefits from motivation.

Motivation is defined as being moved to do something, to be energized or activated toward an end (Ryan and Deci, 2000); while benefits are defined as something that is advantageous or good (Benefit, n.d.). But it is difficult to differentiate the two when benefit is also commonly understood as an extrinsic motivation. An extrinsic motivation is being moved to

do something because it leads to a separable outcome, whereas intrinsic motivation is being moved to do something because it is inherently interesting and gratifying (Ryan and Deci, 2000).

In Griffin and Frongillo's (2003) study on the experiences and perspectives of eighteen farmers from upstate New York, the authors discover social and economic motivations for selling at farmers' markets and separate these from the social benefits the farmers' experienced. Breaking social motivation into intrinsic and extrinsic motivations, the opportunity and enjoyment of engaging with customers and other vendors can be considered intrinsic motivation, while obtaining feedback on their product can be classified as extrinsic motivation.

In order to capture the intrinsic and extrinsic motivations of farmers and farmers' market managers to collaborate, social exchange theory illustrates how the relationships comprising collaborative initiatives are negotiated through a cost-benefit analysis and comparison of alternatives for farmers and farmers' market managers.

Social Exchange Theory

Much of the literature concerning or utilizing social exchange theory (SET) exists in the realms of social psychology (Homans, 1958; Homans, 1961), business and management research (Ma and Qu, 2011), tourism and leisure research (Chuang, 2010; Andereck, Valentine, Knopf and Vogt, 2005; Auld and Case, 1997), economic and marketing research (Grassenheimer, Houston, and Davis, 1998) and sociology (Blau, 1964; Emerson, 1976). According to this theory, collaboration exists within the relationships of food system stakeholders and cannot transpire if exchanges are not occurring among participants. Based on this negotiation process of exchange, stakeholders will either choose to collaborate or not to collaborate in initiatives based on the following premise of social exchange: "persons that give much to others try to get much from

them, persons that get much from others are under pressure to give much [a system working towards equilibrium],” (Homans, 1958). If there is failure to reciprocate an exchange (reward), the exchange and any implicated relationships, will cease to continue (Cook and Rice, 2003).

The following propositions illustrate how Homans (1961) studied and framed social behavior as social exchange (Cook and Rice, 2003):

1. Behavior that generates positive consequences is likely to be repeated.
2. Behavior that has been rewarded in previous exchanges will likely occur in future similar exchanges.
3. The more valuable a result of exchange is to a participant, the more likely it is to be carried out.
4. The more often a person has received a particular award from an exchange, the less valuable that reward will be in future exchanges.
5. Participants will react emotionally different depending on the reward resulting from the exchange (i.e. receiving less than anticipated may evoke a variety of emotions depending on the participant and the relationship between the participants).

These propositions depict social behavior resulting in exchange that relies on evaluating previous exchanges, so a participant will reflect upon an exchange and decide whether or not to continue the exchange in the future, or pursue an alternative exchange with a different participant. Based on this concept, farmers and farmers’ market managers’ decision to engage in an exchange (collaboration initiative) is a reflection of previous collaboration experiences (see Figure 2.2).

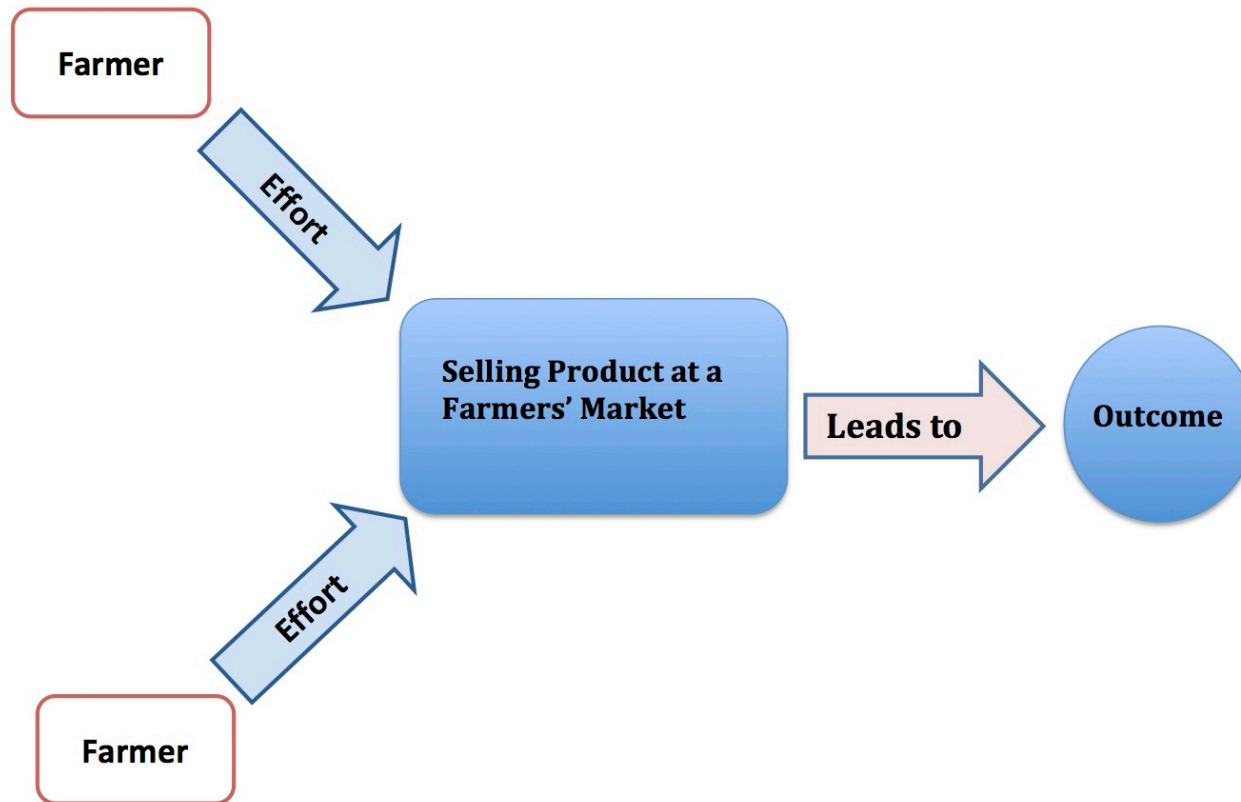


Figure 2.2 Social Exchange

According to Social Exchange Theory, Farmers collaborating by selling product at a farmers' market will weigh the potential benefits against the costs to decide if they will continue to collaborate, or if they will choose an alternative to selling their product at a farmers' market (e.g. selling product at a farm stand as an alternative) (Homans, 1958; Blau, 1964).

Building from Homan's propositions, Blau's (1964) perspective of social exchange is defined as a process of "voluntary actions of individuals that are motivated by the returns they are expected to bring from others and the social exchanges forming relationships" (Blau, 1964, p. 91). Cook and Rice (2003) call this perspective of social exchange a "utilitarian view of behavior" (p. 55) that implies participants involved in exchange will be moved toward social exchange that maximizes benefits. Although this is reminiscent of economic exchange, Blau (1964) clearly states the two forms of exchange are quite different. This perspective claims exchange may initially stem from self-interest to maximize benefits, but the exchange process builds interpersonal relationships and associations. This perspective of social exchange also illustrates the intrinsic significance of relational qualities for participants engaged in social exchange, as well as the extrinsic benefits participants receive and give (Blau, 1964).

Even though this process of social exchange as collaboration is a continual negotiation among participants, there must be two conditions met for exchange to be classified as a social exchange: "It must be oriented toward ends that can only be achieved through interaction with other persons, and it must seek to adapt means to further the achievement of these ends" (Blau, 1964, p. 5). These conditions illustrate SET as a sound framework to examine the motivations of local food system stakeholders to engage in collaboration, since the concept of collaboration includes an interpersonal relationship focus. This interpersonal focus includes many levels of communication, joint strategies, and greater accomplishments that contribute to a common product, goal, or outcome (Bronstein, 2003; Dollahite et al., 2005).

Nevertheless, a central problem of this theory is that negotiation is based upon the premise that each player will approach this negotiation process in a rational fashion. But because

humans possess the capability of acting irrationally, expectancy theory is applied to help explain how stakeholders may choose to collaborate without purely rational thought.

Expectancy Theory

Expectancy theory is explained in this section in an effort to establish its fit for examining farmers and farmers' market manager's motivation to collaborate with other food system stakeholders. Like social exchange theory, expectancy theory uses intrinsic and extrinsic motivators to illustrate potential reasons for behaviors (Vroom, 1964). This theory is largely used within, but not limited to, organizational behavior literature (Behling and Starke, 1973; Ilgen, Nebeker, and Pritchard, 1981), and business and industry research (Howard, 1989; Campbell, Dunnette, Lawler, and Weick, 1970; Daly and Kleiner, 1995) with the intention of identifying motivational problems within the business setting.

The three major components of this theory propose that an individual's motivation they choose to act upon are based on three perceived conditions:

- a. Expectancy: a person's belief of the likelihood their effort will lead to an acceptable level of performance;
- b. Instrumentality: a persons belief that a behavior/performance will result in desired outcome;
- c. Valence: the value, positive or negative, a person places on the outcome (Hancock, 1995; Vroom, 1964).

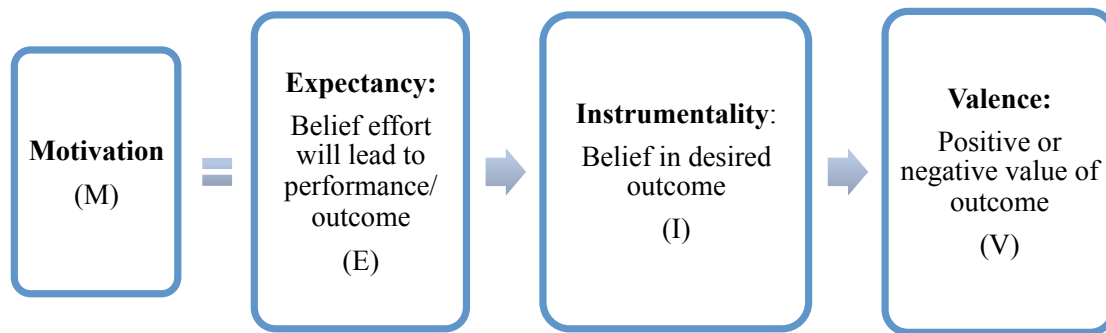


Figure 2.3 Expectancy Theory of Motivation (Based on Hancock, 1995; Desimone et al., 2002).

Based on this theory, the motivational state or force of an individual is the product of the following formula: $M = E \times I \times V$. Where E represents expectancy, I represents instrumentality, and V represents valence (Isaac, Zerbe, and Pitt, 2001). This model of expectancy theory typically assigns values to each component of the theory using likert-type scales. Expectancy is usually measured with a value range of 0.0 to +1.0, instrumentality with a value range of -1.0 to +1.0, and valence having a value range of -10.0 to +10.0 with the motivation for a person being the product of these values (Galbraith and Cumings, 1967; Hancock, 1995).

Applying expectancy theory this way posits that if any one condition (E, I or V) of this theory is low, a person's overall motivation will consequently be affected. Yet, the theory can be applied by examining expectancy, instrumentality, and valence as separate components to understand where or what part of an individual's motivation process is impacted in a particular setting (Hancock, 1995). Altering how the theory is applied in this way does not necessarily require altering how the components of the theory are measured. Nevertheless, one particular concern several reviews (Scwab, Olian-Gottlieb, and Heneman, 1979; Connolly, 1976; Campbell and Pritchard, 1976; Dachler and Mobley, 1973; Heneman and Schwab, 1972; House and Wahba, 1972; Mitchell, 1974; Mitchell and Biglan, 1971; Wahba and House, 1974 as cited in

Ilgen, Nebeker, and Pritchard, 1981) have identified is the inconsistency in methods used to measure expectancy. Yet, the theory has also undergone rigorous testing and receives strong support (Fudge and Schlacter, 1999; Pinder, 1984).

Expectancy theory is chosen for this study because it focuses on the efforts and outcomes of collaboration among stakeholders. Because stakeholders may obtain different benefits from collaborating and value the outcomes of collaboration differently, it is important to then understand why they are (or are not) motivated to collaborate. The theory provides the measures (expectancy, instrumentality, and valence) through which to understand motivation of farmers and farmers' market managers as they move through the decision process of choosing to collaborate. However, because this study is focused on motivation concerning effort to collaborate and the value of collaboration among stakeholders, instrumentality is not measured in this study. Instead, an expectancy-valence framework is used to examine participants perception that their effort to collaborate will result in a desired outcome. An expectancy-valence framework is used to measure "effort-reward expectancy" (Chen and Miller, 1994, p. 85) by adding expectancy and valence together to determine motivation (House, 1971; Lawler, 1973, Vroom, 1964 as cited in Chen and Miller, 1994) to collaborate for participants.

According to expectancy theory, in the context of this study, high effort to collaborate with other food system stakeholders would foster anticipated and effective results for the stakeholder. Consequently, this will set in motion a desirable outcome that generates positive feedback and satisfies a need the individual values. This process then influences the farmer or farmers' market manager's decision to collaborate in the future, and possibly the extent (effort) to which the individual chooses to collaborate.

Synthesis of Literature

In order to nurture and sustain regional food systems, a better understanding of the collaborative processes that create and support these systems is becoming more and more critical. Despite the many benefits and barriers of collaboration in relation to regional food systems identified within the literature, there are very few studies exploring the motivation to collaborate among participating local food system stakeholders. There are even fewer studies using a theoretical framework that focus on collaborative efforts among farmers and farmers' market managers within regional food systems. To conceptually frame collaboration, SET illustrates collaboration as the social exchange farmers and farmers' market managers make when choosing to engage, continue, or terminate their efforts to collaborate. Expectancy theory is then applied and operationalized to examine farmer and farmers' market manager motivation to collaborate with other food system stakeholders by examining expectancy and valence.

Methods

Overview of Research Methods

The purpose of this exploratory study is to examine the motivations of farmers and farmers' market managers in southeast Michigan to collaborate in a regional food system. Because many regional food system studies use qualitative case study analysis approaches (APA, 2007; Dreier, 2008) that are specific to a certain locale or region (Barham et al., 2012), results are often difficult to apply to other developing regional food systems. Because of this, survey methods were used combined with open-ended questions to describe motivations of farmers and farmers' market managers to collaborate with each other in a regional food system in Southeast Michigan.

The researcher collected data through administration of a survey questionnaire. Research protocol was approved by Social Science/Behavioral/Educational Institutional Review Board (SIRB) at Michigan State University. To address content validity, this exploratory study developed two data collection instruments based on previously published study instruments using expectancy theory that were modified to meet the context of the research. Face validity of each instrument was addressed by having MSU faculty, other subject matter experts, and graduate students review both survey instruments. Vroom's (1964) Expectancy theory is used as the framework for the questionnaire, with the goal of understanding the motivations of the participants.

Participants were sent a paper letter or email introducing the study (Appendix B), followed by the survey (Appendix A) and post-marked return envelope three days later. A reminder postcard was sent five days later (Appendix B). A final contact, which included a final letter of invitation (Appendix B) and an additional copy of the survey with a post-marked return envelope, was sent seven days after the postcard was distributed.

The remainder of this section includes a description of the study area, study participants, instrumentation, data collection techniques, and the data analysis for the study.

Study Area

The study area (defined as Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw and Wayne counties, located in Southeast Michigan) was selected for several reasons. A local report focused on the Oakland County Farmers' Market conducted in 2011 highlighted the need for a more in-depth analysis of the area and the local governments role (specifically Oakland County Parks & Recreation Department; OCPR) in the development and support for a regional

food system. Building upon this initial study and with funding from the Michigan Economic Development Corporation's (MEDC) Farmers Market Grant Program, a more comprehensive study of Oakland County's agricultural assets and opportunities, as well as surrounding Southeast Michigan counties was launched.

Southeast Michigan encompasses many urban spaces that are close to rural and agricultural land, which is considered be a strength for the development of a regional food system (Martinez et. al., 2010). Additionally, Southeast Michigan is home to two growing food hubs, Detroit Eastern Market Corporation and Harvest Michigan in Clarkston, Michigan, which are poised to help meet and grow the demand for local foods. Because population in this area is projected to increase for every county except Wayne County (SEMCOG Community Profiles, 2012), the consumer base for growing demand and bolstering support for a regional food system is expected to increase. Complementing this increasing consumer base is the growing interest and development of Farm to Institution (FTI) programs. According to a study on FTIs in Southeast Michigan, of the eighty institutions surveyed, more than 75% purchased local foods in the previous year (Matts and Colasanti, 2013). Farm to School interest is also on the rise (Matts and Smalley, 2013), as well as the potential for developing urban gardening/farming enterprises (Score and Young, 2008), kitchen incubators, grain processing facilities (Buck et. al., 2007), and additional agri-food system businesses. This interest and growth in Southeast Michigan makes this region a prime area for understanding why food system stakeholders are motivated to engage collaboratively and how this may impact the development of a regional food system.

Study Participants

Among the food system stakeholders that comprise a regional food system, farmers and farmers market managers were selected because the region has seen an increase in farmers' markets and a decline in agricultural land (SEMCOG, 2003). This contributes to an imbalance in supply and demand that potentially creates difficulty for both groups of stakeholders. For instance, farmers' market managers may struggle to attract and retain enough farmers to sustain a viable market if farming in the region declines. For farmers, as farmland shrinks and land value increases, farms tend to get consolidated into larger operations that prefer wholesale business rather than direct-marketing business at farmers' markets. These are just some of the issues that may create difficulty for farmers and farmers' market managers to balance the supply and demand for local products in the region. To address this concern, the researcher tried to engage as many possible farmers and farmers' market managers in the region to participate in the study. A list of all farmers and farmers' markets located within the study area was compiled. Internet searches of databases including, but not limited to the Michigan Farmers Market Association (MIFMA) database, Local Harvest database, and Real Time Farms.com, as well as assistance from MSU Extension, OCPR staff, and Detroit's Eastern Market Corporation resulted in a list of ninety farmers' markets and one-hundred-forty-seven farms. The goal of this compilation was to survey all farmers and farmers' market managers' operating/working within the study area in a census fashion. Within this study population, the only criterion was that participants be eighteen years of age or older and be operating/working within the boundaries of the study area as a farmer or farmers' market manager.

Data Collection Instrument Development

The research instruments were developed based on an existing example of expectancy theory research (Turcan, 2010), as well as subject matter relevant to this study (see Appendix A for survey materials). A paper and on-line survey was created for the farmer and farmers' market manager instruments and participants were invited to complete whichever version they preferred. This was done with the goal of increasing the response rate (Dillman, Smyth, and Christian, 2009) by allowing participants to choose the means by which they wanted to participate.

The survey contained 25 questions with 23 Likert-type questions with pre-defined choices. Because using a participant's own outcomes is suggested when using expectancy theory to measure motivation (Mitchell, 1974), a review of literature relevant to local/regional food systems and collaboration identified variables such as increased revenue, increased time for other business activities, increased sense of community, improved relationships among the food system community, and improved reputation (Feenstra, 1997; Stevenson and Pirog, 2008; Ambrose et al., 2010; Pirog and Bregendahl, 2012) as common outcomes in creating scales to measure expectancy and valence. These variables can be experienced as possible outcomes and/or costs related to engaging in collaborative initiatives if collaboration fails or produces a negative experience/outcome for the food system stakeholders.

Questions related to expectancy for collaboration within a regional food system were developed using the framework that expectancy is the belief that one's effort will *lead* to a desired performance/outcome. Based on this perception, seven questions were designed to measure a participant's belief that engaging in collaborative initiatives with other food system stakeholders will lead to a desired outcome. A 5-point Likert-type scale was used with numerical values ranging from one to five and value description anchors ranging from never to every time.

Questions related to valence were developed using the framework that valence is the strength of *value* an individual places on the desired outcomes of collaboration with other food system stakeholders. Based on this framework, seven questions were designed for farmers and eight questions for farmers' market managers to measure the value a participant assigns to possible outcomes from participating in collaborative initiatives with other food system stakeholders. A 5-point Likert-type scale was used with numerical values ranging from one to five and value description anchors ranging from not helpful to very helpful.

Questions related to participant *perceived* motivation to collaborate were based on possible activities and/or outcomes associated with food system collaboration found in relevant literature. Seven questions were designed to measure perceived motivation using a 5-point Likert-type scale with numerical values ranging from one to five and value description anchors ranging from not at all to very much.

One question was developed to address alternatives to collaboration with an option to write in a response, as well as one open-ended question to elicit the participant's expenditures when collaborating. Two additional questions were developed to address: (1) participant interest in local food systems; and (2) perceived importance of collaboration in local food movements. Both were measured on a scale of one to five with one being not interested/important to very interested/important. Non-collaborators have one supplemental question about their reasons behind not collaborating followed by several general demographic questions (e.g. gender, years of experience, education).

Data Analysis

SPSS 20.0 for Mac was used to analyze the data. Variables were computed by taking the mean of each participant's responses. Then the following variables were then analyzed by frequencies and descriptive statistics: expectancy, valence, motivation, collaboration participation, importance of collaboration, interest in local food systems, and perceived motivation to collaborate. Mean values were computed by taking the mean for individual participants for each variable (i.e. expectancy). An overall mean score was then computed for a variable (i.e. expectancy) by taking the mean for all the participant mean scores.

Results

Characteristics of Farmers and Farmers' Market Managers

Of the 90 farmers' market managers (herein referred to as FM MNGR) and 147 farmers surveyed, 34 (38%) FM MNGR and 38 (26%) farmers completed the survey questionnaire (see Table 2.1 for Respondent Demographics). Among the farmer respondents, the majority was male 74.3%, with an average of 25.7 years experience selling their product. Among the FM MNGR respondents, the majority was female (87.5%) with a mean average of 4.64 years of experience as a FM MNGR. Of farmers, the largest portion is 50-59 years of age (48.6%) and over fifty percent of FM MNGR's are 50 years of age or older. Over two-thirds (79%) of farmers had some college education and 34.2% had at least a Bachelor's degree. Over three-fourths (94%) of FM MNGR's had some college education and more than half (73%) had at least a Bachelor's degree.

Table 2.1 Respondent Demographics

	Farmer ¹	FM MNGR ²
Male	74.3 %	12.5 %
Female	25.7 %	87.5 %
Age		
20-29	10.8 %	16.0 %
30-39	5.4 %	9.7 %
40-49	16.2 %	19.4 %
50-59	48.6 %	32.3 %
60+	19.0%	22.6 %
Experience in Years (mean)	25.7 ³	4.64
Education Level		
Less than 12 years	5.3 %	0 %
High School/GED	15.8 %	6.1 %
Some College	31.6 %	21.2 %
College Graduate	34.2 %	42.4 %
Advanced Degree	13.1 %	30.3 %

¹ Farmer: Gender n=37; Age n=37; Experience and Education n=36

² FM MNGR: Gender n=32; Age n=31; Education and Experience n=33

³ Some responses include number of years for family farms (e.g. 200 years).

Farmer and Farmers' Market Manager Interest and Perceptions

Farmer respondent interest in local food movements had a mean score of 4.06; while FM MNGR's have a slightly higher mean score of 4.28 (see Table 2.2). The majority of both respondent groups are extremely interested with 55.6% of farmers in this category and 45.1% of FM MNGR's in this category. FM MNGR's and farmer's are equally neutral about their interest (19.4% for both groups) in local food movements, yet more FM MNGR's are *not at all interested* (6.5%) as compared to farmers (2.8%).

Table 2.2 Respondent Interests in Local Food Movements

	Farmer	FM MNGR
Interest in Local Food Movements		
(1) <i>Not at all interested</i>	2.8 %	6.5 %
(2)	0 %	0 %
(3) <i>Neutral</i>	19.4 %	19.4 %
(4)	22.2 %	29.0 %
(5) <i>Extremely Interested</i>	55.6 %	45.1 %
<i>Mean Score (1-5)</i>	4.06	4.28

¹ Farmer n=36² FM MNGR n=31

Farmer and FM MNGR perceived importance of collaboration to local food movements varied (see Table 2.3). Farmer respondents have a mean score of 3.56 and FM MNGR's have a higher level of perceived importance of collaboration to local food movements with a mean score of 4.16. Over fifty percent of farmers felt either neutral about the importance of collaboration or felt it was not important at all (52.8%). Whereas less than thirty percent of FM MNGR's felt neutral about the importance of collaboration to local food movements and the remaining 71% felt collaboration was of importance.

Table. 2.3 Respondent Perceived Importance of Collaboration in Local Food Movements

	Farmer	FM MNGR
Importance of Collaboration		
(1) <i>Not at all important</i>	2.8 %	0.0 %
(2)	0 %	0.0 %
(3) <i>Neutral</i>	50.0 %	29.0 %
(4)	33.3 %	25.8 %
(5) <i>Very Important</i>	13.9 %	45.2 %
<i>Mean Score (1-5)</i>	3.56	4.16

¹ Farmer n=36² FM MNGR n=31

Perceived motivation to collaborate for farmer respondents is 2.89, while FM MNGR respondents have a higher level of perceived motivation with a mean score of 3.43 (see Table 2.4). Overall, FM MNGR respondents have higher perceived motivation in almost all areas with the exception of “contributing support (financial or non-financial) to advocate for policy change that supports a sustainable local/regional food system”. Farmer respondents mean score was slightly higher (3.47) than FM MNGR respondents mean score (3.37) for this particular collaborative initiative.

Table 2.4 Respondent Perceived Motivation*

	Farmer ¹	FM MNGR ²
Opening your market venue for others to use	n/a	3.94
Participate at a local farmers' market (e.g. selling product)	3.53	n/a
Helping farmers combine their product to sell to larger local buyers (e.g. institutional buyers)	n/a	3.63
Partner with competitors to combine product to sell to large, local institutional buyers	2.22	n/a
Financially contribute to an event that promotes yourself or other competing food system players	2.78	3.22
Volunteer your time or non-financial resources for joint local marketing efforts	2.75	3.50
Jointly fund marketing that promotes your local/regional food system	2.72	3.22
Contribute support (financial or non-financial) to build local food distribution infrastructure.	2.86	3.09
Contribute support (financial or non-financial) to advocate for policy change that supports a sustainable local/regional food system.	3.47	3.37
<i>Overall Perceived Motivation</i>	2.89	3.43

* All scores are reported as mean score on a scale of 1-5.

¹ Farmer n=36

² FM MNGR n=32

Farmer and Farmers' Market Manager Collaboration Dynamics

Farmer and FM MNGR dynamics in relation to collaboration were examined by exploring their participation in collaborative initiatives, perceived barriers to collaboration, alternatives to collaboration, perceived value of collaboration benefits, and their return on investment when collaborating.

Participation in collaborative initiatives for farmers is largely focused in three areas (see Table 2.5). Selling product at a farmers' market (1) has the most participation (60.5%), (2) engaging or supporting an event (financially or non-financially) to promote themselves or other food system players (42.1%), and (3) actively advocating for policy change that supports sustainable farming or agriculture (28.9%) made up the largest areas of collaboration among farmer respondents. FM MNGR respondents' participation is more spread out among initiatives than farmer respondent participation. The collaborative initiative FM MNGR's reported participating in the most was engaging or supporting an event (financially or non-financially) to promote yourself or other food system stakeholders (61.8%). Opening your market venue for others to use was the second most highest (47.1%) for of participation when collaborating and was followed up with 29.4% also engaging in or supporting research (financially or non-financially) in support of local and sustainable food systems. Tying for fourth, FM MNGR respondents reported participating equally in local food policy councils and in advocating for policy change that supports sustainable farming or agriculture.

Table 2.5 Respondent Participation in Collaborative Initiatives

	Farmer ¹	FM MNGR ²
Opening your market venue for others to use	n/a	47.1 %
Selling product at a farmers' market	60.5 %	n/a
Engaging or supporting an event (financially or non-financially) to promote yourself or other food system stakeholders	42.1 %	61.8 %
Engaging in or supporting research (financially or non-financially) in support of local and sustainable food systems	10.5 %	29.4 %
Helping farmers combine their product to sell to larger local buyers (e.g. institutional buyers)	n/a	14.7 %
Combining product with other farmers to sell to larger local buyers (e.g. food hubs)	5.3 %	n/a
Participating in local food policy councils	7.9 %	23.5 %
Actively advocating for policy change that supports sustainable farming or agriculture	28.9 %	23.5 %
Other	10.5 %	2.9 %

¹ Farmer n=38

² FM MNGR n=34

Overall, farmer respondents cited almost twice as many barriers (71 cited barriers) as FM MNGR respondents (38 cited barriers) when it comes to collaborating with other food system stakeholders (see Table 2.6). The most frequently cited barrier for both farmers and FM MNGR's was "I don't have the time" (39.5% of farmers and 38.2% of FM MNGR's). The least cited barrier for both groups of respondents when collaborating with other food system stakeholders was "Other collaborators would benefit more than me/the market would" (7.9% of

farmers and 5.9% of FM MNGR's). Despite some similarity in responses, farmers had a higher mean score for citing barriers (mean = 2.12) than did FM MNGR respondents (mean = 1.67) where each respondent could select zero to five barriers.

Table 2.6 Respondent Perceived Barriers to Collaboration

	Farmer ¹	FM MNGR ²
I don't have the time.	39.5 %	38.2 %
The costs outweigh the benefits.	31.6 %	11.8 %
I am not sure of the benefits.	34.2 %	26.5 %
Other collaborators would benefit more.	7.9 %	5.9 %
I don't benefit enough from partnering/collaborating with others.	28.9 %	5.9 %
Depending on others is too risky.	34.2 %	2.9 %
Other	10.5 %	20.6 %
Mean Number of Barriers Cited Per Respondent	2.12	1.67

¹ Farmer n=33

² FM MNGR n=24

Among alternatives to collaboration, 42.9% of farmer respondents would “prefer to focus more on being a competitive food system player rather than a collaborator,” while 26.7% of FM MNGR respondents would “agree to collaborate, but don't really participate” (see Table 2.7). This choice is also the second highest alternative for farmer respondents with 17.1% also agreeing to collaborate but then not participating. Each group was also provided the option to describe their own alternative to collaborating by writing in what they would rather do. Farmer respondents provided 6 write-in responses (17.1%) and FM MNGR respondents provided 17

write-in responses (56.7%). Of these responses, the most frequently occurring ones relate to wanting to engage in collaborative initiatives but experiencing a barrier of some sort (e.g. not being approached to collaborate, not having time, or being interested but not ready due to experience or size of operation).

Table 2.7 Respondent Alternatives to Collaboration

	Farmer ¹	FM MNGR ²
I agree to collaborate, but don't really participate.	17.1 %	26.7 %
I avoid other food system stakeholder's requests to collaborate.	11.4 %	3.3 %
I prefer to be a leader instead of working collaboratively.	11.4 %	6.7 %
I prefer to focus more on being a competitive food system player, rather than a collaborator.	42.9 %	6.7 %
Other	17.1 %	56.7 %
Mean Number of Barriers Cited Per Respondent	3.37	3.93

¹ Farmer n=35

² FM MNGR n=30

The perceived value of collaboration benefits for farmers and FM MNGR's have a mean score over three for each possible benefit they were surveyed on, yet FM MNGR respondents had a wider range of mean scores as well as overall higher mean scores than farmers (see Table 2.8). The benefit most valued among farmer respondents is 'Feeling like I'm contributing to my community (mean=3.91), with "having more time to develop or grow new products" as the second most valued benefit (mean=3.82). FM MNGR respondents on the other hand found increased knowledge of local food systems so they can better educate visitors/vendors (mean=4.16) and having increased access to other food system players/sectors (mean=4.16) to be

the two most valued benefits. The third most valued benefit of collaboration for FM MNGR respondents is having a better reputation in their local food system community (mean=4.13).

Table 2.8 Respondent Perceived Value of Collaboration Benefits

	Farmer <i>mean</i> ¹	FM MNGR <i>mean</i> ¹
Spending less time marketing.	3.53	3.40
Increasing my return on investment (financial or non-financial).	3.76	3.97
Having more time to develop or grow new products, programs or business ventures.	3.82	3.77
Strengthening my relationships with other food system players/sectors.	3.79	3.94
Increasing my knowledge of local food systems so I can better educate customers.	3.59	4.16
Helping me be more effective in my field of work.	3.65	3.84
Having a better reputation within our local food system community.	n/a	4.13
Feeling like I'm contributing to my community.	3.91	n/a
Increased access to other food system players/sectors (e.g. consumers, distributors).	n/a	4.16

¹ The mean score is based on a scale of 1 to 5.

Lastly, farmer and FM MNGR respondents rated the return on investment (ROI) for the collaborative initiatives they participated in (see Table 2.9) on a scale of one to five, with one being a very poor return on investment and five being an excellent return on investment. The highest ROI for farmer respondents is combining product with other farmers to sell to larger

institutional buyers (mean=4.50) and the lowest ROI is for engaging in or supporting research (financially or non-financially) in support of local and sustainable food systems (mean=2.25).

The highest ROI for FM MNGR respondents collaborating is engaging in or supporting an event (financially or non-financially) to promote themselves or other food system players (mean=3.55). The lowest ROI for FM MNGR respondents' collaborative initiatives is helping farmers to combine their product to sell to larger local buyers (mean=3.00).

Table 2.9 Respondent Perceived Return on Investment for Collaboration*

Collaborative Initiative	Farmer ¹	FM MNGR ²
Selling product at a farmers' market	3.76	n/a
Opening your market venue for others to use	n/a	3.50
Engaging in or supporting an event (financially or non-financially) to promote yourself or other food system players	3.13	3.55
Engaging in or supporting research (financially or non-financially) in support of local and sustainable food systems	2.25	3.50
Combining product with other farmers to sell to larger local buyers (e.g. food hubs)	4.50	n/a
Helping farmers to combine their product to sell to larger local buyers (e.g. institutional buyers)	n/a	3.00
Participating in local food policy councils	3.50	3.25
Actively advocating for policy change that supports sustainable farming or agriculture	3.36	3.17
Other	4.00	0.00
Return on Investment <i>Mean Score (1-5)</i>	3.43	3.42

* All scores are reported as mean scores on a scale of 1-5.

¹ Farmer n=27

² FM MNGR n=24

Farmers and Farmers' Market Managers Motivation to Collaborate

Farmer and FM MNGR motivation to collaborate was measured by examining expectancy and valence for each group of respondents across the various collaborative initiatives, and then combining these two variables for a total motivation score. Values are reported as mean scores on a scale of one to five, with one being never or not helpful and five being every time or very helpful.

Expectancy for farmer respondents for each collaborative initiative was above a mean score of 3.00 (see Table 2.10). The initiatives with the highest expectancy mean score for farmers are (1) feeling like I'm contributing to my community (mean=3.80) and (2) strengthening relationships with other food system players/sectors (mean=3.58). The lowest expectancy mean among the initiatives for farmers is helping me be more effective in my field of work (mean=3.08). FM MNGR respondents had more diverse mean scores of expectancy ranging above and below a 3.00 mean score. The highest expectancy mean among the initiatives for FM MNGR's is feeling like I'm contributing to my community (mean=4.35), followed up by increasing my knowledge of local food systems so I can better educate customers (mean=4.22). The lowest level of expectancy for FM MNGR respondents is spending less time marketing (mean=2.87).

Table 2.10 Respondent Motivation to Collaborate: Expectancy

	Farmer ² <i>mean</i> ¹	FM MNGR ³ <i>mean</i> ¹
Spending less time marketing.	3.38	2.87
Increasing my return on investment (financial or non-financial).	3.29	3.43
Having more time to develop or grow new products, programs or business ventures.	3.29	3.04
Strengthening my relationships with other food system players/sectors.	3.58	3.87
Increasing my knowledge of local food systems so I can better educate customers.	3.46	4.22
Helping me be more effective in my field of work.	3.08	3.61
Feeling like I'm contributing to my community.	3.80	4.35

¹ The mean score is based on a scale of 1 to 5.

² Farmer n=24-25

³ FM MNGR n=23

Valence for farmer and FM MNGR respondents for each collaborative initiative also resulted in a mean score above 3.00 (see Table 2.11). For farmers, the highest valence for the collaborative initiatives is feeling like I'm contributing to my community (mean=3.91) and the lowest valence among initiatives is spending less time marketing (mean=3.53). FM MNGR respondents reported the highest valence for strengthening my knowledge of local food systems so I can better educate customers (mean=4.16) and the lowest valence among collaborative initiatives is spending less time marketing (mean=3.40).

Table 2.11 Respondent Motivation to Collaborate: Valence

	Farmer <i>mean¹</i>	FM MNGR <i>mean¹</i>
Spending less time marketing.	3.53	3.40
Increasing my return on investment (financial or non-financial).	3.76	3.97
Having more time to develop or grow new products, programs or business ventures.	3.82	3.77
Strengthening my relationships with other food system players/sectors.	3.79	3.94
Increasing my knowledge of local food systems so I can better educate customers.	3.59	4.16
Helping me be more effective in my field of work.	3.65	3.84
Feeling like I'm contributing to my community.	3.91	n/a
Having a better reputation within our local food system community.	n/a	4.13
Increased access to other food system players/sectors (e.g. consumers, distributors).	n/a	3.81

¹ The mean score is based on a scale of 1 to 5.

² Farmer n=32-34

³ FM MNGR n=30-32

Computing a mean score for farmer and FM MNGR respondents' expectancy and valence scores for each collaborative initiative resulted in an overall mean of expectancy and valence for each group of participants (see Table 2.12). Farmer respondents mean of 3.43 for expectancy and 3.74 mean for valence were added and then divided by two to give a total motivation mean score of 3.59. FM MNGR respondents expectancy mean of 3.88 and valence mean of 3.62 were also added and divided by two to give a total motivation mean score of 3.75.

Table 2.12 Respondent Motivation to Collaborate

	Farmer	FM MNGR
Expectancy <i>Mean Score (1-5)</i>	3.43	3.88
Valence <i>Mean Score (1-5)</i>	3.74	3.62
Total Motivation <i>Mean Score</i>	3.59	3.75

Discussion

Characteristics of Farmers and Farmers' Market Managers

Sixty percent of farmer respondents reported collaborating with other food system stakeholders by selling product at a farmers' market, which has become a key tactic for small to medium sized farms to remain viable (Low and Vogel, 2011). FM MNGR respondents' greatest form of reported collaboration (62%) was engaging in or supporting an event that would benefit themselves or other food system stakeholders. Many successful farmers' markets host or organize events at the market as an approach to increase community presence by collaborating with other organizations/groups, increasing number of customers/visitors, and most importantly, ensuring the markets viability (Stephenson, 2008). Farmers' high participation at markets and market managers' high interest in events create opportunity to increase collaboration between the two groups. For example, collaborative initiatives centered on other direct marketing operations such as food hubs¹ or community supported agriculture (CSA) development, or collaboration

¹ A food hub is an enterprise that facilitates "the aggregation, storage, processing, distribution, and/or marketing of locally or regionally produced food products" (Barham, 2011, p. 6) and is considered a form of collaboration among food system stakeholders.

addressing policy that impacts farmers and/or regulations affecting farmers' markets (e.g., accepting SNAP benefits at the market) are all areas the two groups may collaborate together.

With increasing loss of farmland in Southeast Michigan due to population growth and increasing land values (SEMCOG, 2003), food system stakeholders are building support for the development of food hub operations in the region. Food hubs have the potential to reduce unemployment, improve public health, increase local tax revenue, create greater regional branding, and attract and retain local businesses (Lerman, Feenstra, and Visser, 2012). Unfortunately, engaging in a collaborative initiative such as a food hub may force farmers to take on roles they might be uncomfortable embracing. Farmers often have a strong sense of identity as producers and may resist collaboration if it challenges their sense of identity (Sharpley and Vass, 2006). Yet, there is strong potential for farmers' markets and farmers to support development of food hubs in Southeast Michigan, as both groups have a high interest in local food movements. Identifying a champion among these stakeholder groups to initiate collaboration in food hub development may prove difficult, but interest in local food movements is clearly an asset that can be built upon.

Farmer and Farmers' Market Manager Motivations for Collaborating

Farmer and FM MNGR respondents' perceived motivation varies for engaging in collaborative initiatives with other food system stakeholders. Overall, farmers felt less motivated with a mean score of 2.89, whereas FM MNGR respondents felt they had high motivation to collaborate with a mean score of 3.43 (see Table 2.4). Examining the motivational process in which farmers and farmers' market managers choose to engage in collaborative initiatives according to expectancy theory revealed several similarities and differences between the two

groups of respondents. Both groups of respondents had a similar overall level of motivation to collaborate with mean scores for both over 3.5 on a scale of one to five (see Table 2.12 for mean scores), meaning that farmers and FM MNGR's both believe the effort they make collaborating will lead to a positive outcome. Expectancy theory posits that the higher a person's expectancy, the more likely they will exert effort to achieve the outcome (Pinder, 1984). Yet, farmer respondents perceive themselves as less motivated to collaborate (mean=2.89) than FM MNGR respondents (mean=3.43), which contradicts farmer respondent overall expectancy mean score. This suggests that farmer respondent's overall motivation to collaborate resulted in a fairly high mean score because this group places stronger value on the outcomes associated with collaborating (i.e. valence is higher than expectancy).

FM MNGR respondents have a higher expectancy mean compared to their overall valence mean (mean=3.62) suggesting high effort to collaborate, but that the outcomes are not always the desired outcome (i.e. have low valence). This does not mean the FM MNGR respondents place less value in the outcome (actual satisfaction), but that they *anticipate* more satisfaction from the collaborative outcome (Vroom, 1964). Thus, the anticipated satisfaction (valence) of an outcome can be different from the actual satisfaction of the outcome.

Examining respondent's view of their return on investment specific to the initiatives they engaged in revealed an overall mean of 3.43 for farmers and 3.42 for FM MNGRs (see Table 2.9). These findings suggest that the collaborative initiatives respondents *are* engaging in result in a positive outcome and support respondents' motivation levels according to expectancy theory, despite lower perceived motivation levels reported by respondents. This lower perceived motivation may be related to collaborative initiatives they choose to not engage in and not necessarily reflective of the collaborations they *are* engaged in.

Lastly, the overall levels of farmer and FM MNGR respondents' expectancy and valence levels (Figure 2.3. for Motivational Components according to expectancy theory) shows evidence for how each group is motivated to collaborate. It should be noted that expectancy theory does not explain *what* motivates stakeholders to collaborate, but focuses on the process of *how* they make the decision to collaborate. Viewing expectancy and valence separately depicts where along the process of choosing to collaborate that respondents are strongly moved to collaborate or are inhibited in their choice to collaborate. If farmers or FM MNGRs have a belief that their effort will not result in an acceptable performance (expectancy) or not lead to a desired outcome that they value, it impacts their motivation to collaborate (Isaac et. al., 2001). Although expectancy and valence resulted in relatively high mean scores, farmer respondents had lower expectancy than FM MNGR's and FM MNGR respondents had lower valence than farmers. Considering these lower scores and how collaboration is conceptually framed in this study by social exchange theory, lower scores may cause either farmers and/or FM MNGRs to choose an alternative to collaborating with other food system stakeholders.

Respondents Perceived Barriers and Alternatives to Collaboration

Between the farmer and FM MNGR respondents, it is not surprising that farmers reported almost twice as many barriers to collaboration than FM MNGR's. Research has shown that farmers value their independence and way of life more so than social (collaborative) aspects related to their work (Gasson, 1973). This is reinforced by the finding that farmers also "prefer to focus more on being a competitive food system player rather than a collaborator," as an alternative to engaging in collaborative initiatives. Interestingly farmer respondents' most active form of collaboration was selling product at a farmers' market, where it has been demonstrated

that the market experience and economic success selling at a farmers' market is affected by the other farmers/vendors at the market (Griffin and Frongillo, 2002). With farmers having higher valence than expectancy, they may choose to exert effort selling product at a farmers' market because they value other benefits associated with the collaborative initiative aside from economic success (e.g., like contributing to their community; see Table 2.8). The alternative to working together for the success of all vendors at the farmers' market is to focus on being a competitive vendor, which aligns with the most preferred alternative to collaborating for farmers.

Interestingly both groups of respondents reported a lack of time as the number one barrier to engaging in collaborative initiatives. Because many farmers prefer to work independently (Gasson, 1973) and this takes more time, farmers may feel they have little time for collaboration. FM MNGR respondent's lack of time is likely associated with the size of the market they are operating, their experience in managing a market, and whether or not they are paid or volunteer managers (Stephenson, 2008). These factors strongly influence the success of the market and the amount of extra time a manager may have to engage in collaborative efforts. The findings for FM MNGR respondents in this study reveal that the majority have less than five years experience, are largely part time or volunteer managers, and 72.7% managed small markets². These factors may also suggest why, despite managers view that collaboration is very important to local food movements, the most selected alternative to engaging in collaborative initiatives is agreeing to collaborate but not really participating.

² Market sizes categories are organized in the following manner, developed from Stephenson's (2008) definition of market size: small 5-30 vendors, medium 31-55 vendors, and large 56-90 vendors.

Respondents Perceived Value of Benefits for Various Collaborative Initiatives

Many benefits were reported by respondents, but the benefits most valued among farmer respondents are ‘Feeling like I’m contributing to my community’ and “Allowing me more time to grow or develop new products” as the second most valued benefit. Both of these benefits align with the positive outcomes associated with collaborating in a regional food system. Because most farmer respondents reported the desire to work independently, it is surprising they chose “contributing to my community” over other benefits. One possible explanation is that farmer respondents have a particular meaning of the concept *community*, and it is sometimes delimited to the *farming community* (Gasson, 1973). This presents a complex issue about how farmers in Southeast Michigan view and define their community and region, and how this may impact their motivation to engage in collaborative initiatives.

The second most valued benefit to collaborating for farmer respondents of “Allowing me more time to grow or develop new products” has been identified by researchers as a benefit vendors potentially experience when selling at farmers’ markets (Hinrichs, Gillespie, and Feenstra, 2004). The atmosphere of the market is said to encourage and support entrepreneurial activity and experimentation with new products or ideas (Brown, 2002). This second benefit also touches upon time, as does the least valued benefit to collaborating, which is “having to spend less time marketing.” Marketing challenges for agriculturally based businesses (e.g. farms, farmers’ markets, agritourism operations, orchards), local, and regional food systems has been documented within literature (Lyson, Gillespie, and Hilchey, 1995; Clancy and Ruhf, 2010) and also does not align with lack of time being the most reported barrier to collaborating for both groups of respondents. These findings suggest time as a resource and benefit for both farmers

and FM MNGR's in Southeast Michigan should be clearly addressed when working to facilitate and engage stakeholders in collaborative initiatives.

FM MNGR respondents, on the other hand, found "Increasing my knowledge of local food systems so I can better educate visitors and venders" to be the most valued benefit and "Increased access to other food system players/sectors (e.g. consumers, distributors)" to be equally valued benefits when collaborating with other food system stakeholders. Knowledge in relation to local, regional, and alternative food systems is often associated with increasing community capacity (Flaccavento, 2009) about food, farming, and building more sustainable communities. It is clear that FM MNGRs in Southeast Michigan not only want to learn about local and regional food systems, but also value sharing the knowledge with fellow stakeholders.

It is also clear that FM MNGR respondents find a return on investment (financial or non-financial) a valuable benefit of engaging in collaborative initiatives with other food system stakeholders. Since regional food systems often struggle to develop and market all components (e.g., farmers' markets, incubator kitchens, farmers, distributors) as well as the entire region (Hall and Sharples, 2008), the effort a stakeholder makes collaborating for the benefit of the region may not always result in a return on investment for that specific stakeholder. This is a critical issue, considering that many farmers' markets do not have consistent revenue streams to maintain viability of the market (Stephenson, 2008). When revenue is not an issue, farmers' market managers may look for a return on investment from collaborating, such as increased attendance at the market or free marketing.

Conclusions

Examining the motivation of farmers and farmers' market managers in Southeast Michigan to collaborate with other food system stakeholders suggests a strong outlook for further development of a regional food system in Southeast Michigan. The majority of respondents reported high means scores of expectancy and valence.. These components suggest farmers and farmers' market manager respondents are motivated to engage in collaborative initiatives that support regional food system development. Despite levels of participation not being exceptionally high according to this study's findings (participation was largely focused in three areas of collaboration for farmers and only two for FM MNGRs), these findings were based on the number of initiatives in which each respondent participated. A more in-depth analysis should examine the *amount* of effort each participant is motivated to exert when collaborating, not just *if* they collaborated.

Furthermore, many of the barriers and alternatives respondents reported are typical obstacles for regional food system stakeholders. But results from this study can facilitate improved communication and engagement among stakeholders to increase participation in collaborative initiatives in Southeast Michigan and address these obstacles. Focusing on the components (expectancy and valence) that impact stakeholder motivation to collaborate can do this. These variables help illustrate a strategic way to communicate about collaboration with food system stakeholders by focusing on effort, values, and outcomes. For example, FM MNGRs reported having high expectancy but largely engaging in only two areas of collaborative initiatives. Having high expectancy means FM MNGR's feel their effort to collaborate will lead to a positive outcome, but areas of participation may be low because outcomes associated with other collaborations may not necessarily lead to benefits they value. Knowing this, practitioners

should communicate more about the value of benefits resulting from collaboration rather than focusing on FM MNGRs level of effort (expectancy) when collaborating.

Implications such as these are important to local food system practitioners and local government planning and policy officials for sustainable development of collaborative initiatives within local and regional food systems.

Implications

The results of this study highlight the importance of framing and communicating reasons to collaborate differently for specific stakeholders involved in various collaborative initiatives. The following are implications and recommendations for facilitating collaboration among food system stakeholders, incorporating the results from this study.

Implications for Farmers' Markets

1. Because farmers cite lack of time as the top barrier to collaboration, FM MNGRs should work to acknowledge and validate the value of farmers' time when trying to encourage collaboration. This can be done by engaging farmers in activities that consume minimal amount of their time, such as having farmers sample their product at their market stall versus requesting they do a cooking demonstration using their product at the market.
2. As Southeast Michigan works to create sustainable farmers' markets and meet consumer demand, market managers should focus on clearly communicating the benefits of collaboration with farmers since 34.2% of respondents are not sure of the benefits and 28.9% feel they do not benefit from collaborating. Benefits communicated should include

benefits to the farmers, as well as for the market, the community, and the larger food system region since “feeling like I’m contributing to my community” was the reported as the most valued benefit to collaboration for farmers.

3. Since 42.9% of farmer respondents “prefer to focus on being a competitive food system stakeholder rather than a collaborator,” FM MNGRs may increase farmer collaboration by focusing on how collaboration can help farmers develop or grow new products (the second most valued benefit when collaborating for farmers). Again, clearly illustrating how their collaboration benefits the community may help encourage farmers to collaborate in spite of their strong desire to focus on being competitive.
4. Farmer respondents reported they perceive their highest return on investment (ROI) results from collaborating with other farmers by combining product to sell to larger local buyers (e.g., institutional buyers). Yet, FM MNGRs felt assisting farmers in aggregating their product to do this resulted in their lowest ROI for the market. These findings suggest markets continue to explore how they increase their ROI while collaborating with farmers to facilitate distribution to larger local buyers; thus, increasing collaboration and working toward building a sustainable regional food system.

Implications for Farmers

1. Because FM MNGRs perceived themselves as being motivated to open their market venue for others to use, it is suggested that farmers communicate their needs to the markets they participate/sell product at to discern how the market can help farmers grow

and develop new products (farmers second most valued benefit when engaging in collaboration) through use of the market space. Some examples of this include the farmers' market developing an incubator kitchen for farmers to use/rent to develop value added products, or providing a space for farmers to distribute CSA shares to customers in order to diversify their business through a community supported agriculture program.

2. Since FM MNGR respondents reported 'engaging in or supporting an event (financially or non-financially) to promote themselves or other food system stakeholders as their top ROI for the market, it is suggested that farmers pursue support from their local farmers' markets to create events relevant to their needs. For example, since 28.9% of farmer respondents reported they collaborate by "actively advocating for policy change that supports sustainable farming and agriculture," farmers should pursue the support of farmers' markets in hosting events to increase awareness and support for policy change within the community.

Implications for Policy Makers & Planners

1. Because time was identified as a critical resource and benefit for respondents, practitioners, government and policy planning officials, and champions of collaborative initiatives should be intentional about what initiatives farmers and FM MNGRs are invited to collaborate on. Expectations as to the level of effort expected from collaborators should be made explicit. Additionally, since saving time was identified as a valued benefit of collaboration, it should be emphasized when inviting stakeholders to participate in collaborative initiatives.

2. Both groups of respondents reported high levels of interest in local food movements, but engaged in only a small select number of collaborative initiatives. Practitioners and policy makers spearheading collaboration for regional food system development should focus on *increasing* farmer and FM MNGR collaboration at the local level before trying to push stakeholders to scale up to a regional level. Both groups of respondents perceive themselves as being more motivated to collaborate with other stakeholders in the context of a farmers' market, which provides a venue or space for practitioners to introduce the concept of scaling up to regional level collaborations (e.g., developing a food hub).
3. As state and local governments increasingly work to address policy issues (Raja et al., 2008), this research suggests strategic engagement of farmers and farmers' markets in collaborative initiatives focused around events that specifically benefit these two groups and other food system stakeholders, as well as focusing on policy change that supports sustainable farming and agriculture. Respondents perceived themselves as being more motivated to collaborate around these two areas of collaboration.
4. Because both farmer and FM MNGR respondents reported relatively high means scores for expectancy, both groups believe their effort will lead to an outcome. Practitioners should make it clear to farmers and FM MNGRs that the goals they are working to achieve are attainable and that they are capable of helping achieve them in order to maintain or increase expectancy and participation in collaborative initiatives.

5. Because over 30% of farmer respondents reported collaboration “is too risky,” practitioners championing collaborative initiatives that engage farmers in Southeast Michigan should focus on building trust when collaborating. Trust can be built by providing farmers some control when collaborating, or implementing a contract or policy that formalizes outcomes for farmers that they desire or value.
6. Practitioners engaging FM MNGRs in Southeast Michigan should focus on the anticipated outcomes of collaboration in order to increase participation in initiatives (and increase valence among FM MNGRs), as well as combat their tendency to agree to collaborate but then not really participate. Some benefits identified in this study that stakeholders highly value are: increasing knowledge of local food systems (FM MNGRs and farmers), increasing return on investment (FM MNGRs and farmers), increased access to other food system stakeholders (FM MNGRs), feeling like I’m contributing to my community (farmers), allowing more time to grow or produce new products (farmers), and strengthening relationships with other food system stakeholders (FM MNGRs and farmers).

Implications for Researchers

1. Researchers should invite feedback about collaboration processes as well as the outcome from collaborators (in this context, farmers and FM MNGRs). This may be in the form of a general survey, pre- and post-surveys, focus groups, and interviews. Additionally, if the desired outcome was not achieved (or if a breakdown in any part of the motivational process was identified from feedback), researchers should strategically provide

alternatives to farmers and FM MNGRs to keep them engaged in collaboration that continues to benefit Southeast Michigan's regional food system. These strategic alternatives should be chosen based on the feedback provided from collaborators whose experience was unsatisfactory.

2. Benefits specific to each collaborative initiative should be clearly communicated before, during, and after collaboration in order to motivate collaborators. Also, because benefits are not synonymous with motivators and are often associated with tangible results, relational (intangible) aspects of collaboration should be evaluated and improved upon where possible to promote positive collaboration experiences. Researchers need to work to clearly articulate these results to policy makers, planners, and state and local government bodies, as well as food system stakeholders themselves to create transparency of benefits throughout the regional food system and facilitate collaboration.
3. A Cronbach's Alpha was calculated for the scales created to measure expectancy and valence in this study and all have a reliability value of .7+, will be considered strongly reliable. Specifically, the valence scale for farmers had a value of .872 and the expectancy scale had a value of .771. For FM MNGR scales, valence had a reliability value of .826 and the expectancy scale had a value of .754. Because of the strong internal reliability of these scales, it is suggested that food system researchers continue to use them to measure motivation to collaborate over time in Southeast Michigan, as well as other developing areas in Michigan.

APPENDICES

Appendix A: Survey Instruments

Dear Farmer,

I am reaching out to you to collect information that will help create a clear picture of the bridges and barriers for food system players and stakeholders to collaborate in Southeast Michigan.

***You must be 18 years of age or older in order to participate in this survey. Your participation is completely voluntary and you may withdraw your participation at any time. Thank you in advance for being part of this study and helping to strengthen Southeast Michigan's local and regional food systems.**

Contact Information for Questions and Concerns:

If you have any questions about your role and rights, such as scientific issues, how to do any part of it, or to report an injury, please contact the research: Crystal Miller, Department of CARRS, Michigan State University, 131 Natural Resources Bldg., 480 Wilson Rd., East Lansing, MI 48824-1115; mill1879@msu.edu; (517) 353-0803.

If you have any questions about your role and rights as a research participant, or would like to register a complaint about this study, you may contact, anonymously if you wish, the MSU's Human Research Protection Programs, at (515) 355-2180, FAX (517) 432-4503, or e-mail irb@msu.edu, or regular mail at Olds Hall, MSU, East Lansing, MI 48824.

By checking the box, I agree to participate in the survey.

☐

1) Please select any of the following activities in which you have partnered/collaborated with other food system players/sectors (e.g., other farmers, processors) (Please check all that apply)

- ☐ Selling product at a farmers' market
 - ☐ Engaging in or supporting an event (financially or non-financially) to promote yourself or other food system players
 - ☐ Engaging in or supporting an research (financially or non-financially) in support of local and sustainable food systems
 - ☐ Combining product with other farmers to sell to larger local buyers (e.g. at food hubs)
 - ☐ Participating in local food policy councils
 - ☐ Actively advocating for policy change that supports sustainable farming or agriculture
 - ☐ Other (Please specify):
 - ☐ No, I have not partnered or collaborated with other food system players/sectors
-

****If you have not partnered/collaborated, please skip to QUESTION 5.***

2) We are interested in the return on investment you receive from collaboration with other food system players/sectors. Please consider the FINANCIAL AND NON-FINANCIAL contributions you have made, as well as the FINANCIAL AND NON-FINANCIAL benefits you have received from collaborating, and rate the investment from a poor return (1) to an excellent return on investment (5).

	Very Poor Return on Investment 1	2	Neutral 3	4	Excellent Return on Investment 5
Selling Product at a farmers market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engaging in or supporting an event (financially or non-financially) to promote yourself or other food system players.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engaging in or supporting research (financially or non-financially) in support of local and sustainable food systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combining product with other farmers to sell to larger local buyers (e.g. at food hubs).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participating in local food policy councils.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Actively advocating for policy change that supports sustainable farming or agriculture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3) Please list the FINANCIAL AND NON-FINANCIAL contributions you have made, or may make, when collaborating with other food system players:

Please share:

4) We are interested in the benefits you expect to see from partnering/collaborating with other food system players/sectors. Please use the scale below, with one (1) being never and five (5) being almost always.

Partnering/collaborating with other food system players/sectors will...

	Never 1	2	Sometimes 3	4	Every Time 5
...result in me spending less time marketing my product/farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...allow me to increase my return on investment (e.g. financial or non-financial).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...strengthen my relationships with other food system players/sectors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help me feel like I'm contributing to my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...increase my knowledge of local food systems so I can better educate my customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help me be more effective in my field work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5) Which of the following benefits would help your farm/business the most when partnering/collaborating with other food system players/sectors?

	Not Helpful 1	2	Neutral 3	4	Very Helpful 5
Spending less time marketing my farm/business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increasing my return on investment (e.g. financial or non-financial).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allowing me more time to grow or develop new products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strengthening my relationships with other food system players/sectors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling like I'm contributing to my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increasing my knowledge of local food systems so I can better educate my customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping me be more effective in my field of work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6) Please indicate how interested you are to engage in any of the following activities.

	Not at all 1	2	Neutral 3	4	Very much 5
Participate at a local farmers market (e.g. selling, marketing, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Partner with competitors to combine product to sell to large, local institutional buyers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financially contribute to an event that promotes yourself or other food system players.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volunteer your time or other non-financial resources for joint local marketing efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jointly fund marketing that promotes your local/regional food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contribute support (financial or non-financial) to build local food distribution infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contribute support (financial or non-financial) to advocate for policy change that supports a sustainable local/regional food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7) Please consider the benefits, costs, and risks to collaboration. *Instead of collaborating,* are there ways you prefer to interact with other food system players? Check all that apply.

- ☐ I avoid other food system player's requests to collaborate.
- ☐ I agree to collaborate, but don't really participate.
- ☐ I prefer to be a leader instead of working collaboratively.
- ☐ I prefer to focus more on being a competitive food system player rather than a collaborator.
- ☐ Other (*please specify*):

8) If you do not collaborate, please select all the reasons why. Check all that apply.

- ☐ I don't have the time.
- ☐ My costs to collaborate outweigh the benefits.
- ☐ I am not sure of the possible benefits.
- ☐ Other collaborators would benefit more than me.
- ☐ I don't benefit enough from partnering/collaborating with others.
- ☐ Depending on others is too risky.
- ☐ Other (please specify):

9) Please rate how interested you are in local food movements.

	Not at all Interested 1	2	Neutral 3	4	Very Interested 5
Level of interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10) How important do you think collaboration is to local food movements?

	Not at all Important 1	2	Neutral 3	4	Very Important 5
Collaboration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11) Thinking about all the ways to collaborate, to what extent do you agree or disagree with the following statement.

	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
The more effort I give to collaborating, the more benefits I will receive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12) Now we would like to know about your experience with Farmers' Markets. Farmers markets play many roles; please indicate the extent to which you agree or disagree with the following:

Farmers markets should...	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
...ensure customers have freedom to explore the market without purchasing anything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...work to make the farmers market a place where people can socialize.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help educate customers about the local food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...make sure the farmers market is an enjoyable experience for customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...provide an attractive market space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...provide customers with added services/experiences (e.g. cooking demonstrations, free samples, and information).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*****If you have never sold product at a farmers market, please skip to QUESTION 17.*****

13) If you have sold product at a farmers market, why did you choose to do so?

- ☐ To be able to better negotiate price.
- ☐ To have social interaction with others (e.g. customers, other vendors)
- ☐ It is a convenient marketing outlet.
- ☐ It is a form of publicity for my product.
- ☐ It serves as a business incubator
- ☐ It aligns with my values as a producer.
- ☐ It is an additional point of distribution for me.
- ☐ I have never sold product at a farmers market.
- ☐ Other (please specify):

14) To what extent do you agree or disagree with the following statement?

	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
I help provide a leisure experience at the farmers market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15) To what extent do you agree or disagree with the following statements?

As a vendor, I directly benefit from...	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
...customers having the freedom to explore the market without purchasing anything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...the farmers market being a place where people can socialize.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...the farmers market educating customers about the local food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...the market being an enjoyable experience for customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...the market being an attractive space for customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...the market being a clean place for customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...the market providing customers added services or experiences (e.g. cooking demonstrations, free samples, or information).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16) What do you enjoy about selling at a farmers market?

Please share:

17) We all have our own ideas about what leisure is. Thinking about a farmers market, please indicate how strongly you agree or disagree with the following statement.

	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
Farmers markets provide a leisure experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18) Select a farming occupation you identify most with.

- ☐ Full-time farmer
- ☐ Part-time farmer
- ☐ Recreational farmer/gardener
-

19) To what extent do you agree or disagree with the following statements?

People go to farmers markets to...	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
...relax physically.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...feel free to choose what they want to do or buy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...tell others about the market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...have others think highly of them for going.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...do something with their family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...have a pleasurable experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...be with people who have similar values.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...meet other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...get away from the usual demands of life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...learn about things while there.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...obtain fresh produce.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...access locally produced food.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...support local agriculture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...just buy groceries.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...support their local economy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...to get what they need.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20) How many acres do you currently farm? _____

21) How many years have you been selling the product you grow/produce? _____

22) What is your five digit zip code for your farming location? _____

23) What year were you born? _____

24) What is your gender? _____

25) What is the highest level of formal education you have completed?

- ☐ Less than 12 years
- ☐ High school graduate/GED
- ☐ Some college
- ☐ College degree
- ☐ Advanced degree

Thank You for completing the survey.
Your time and input is greatly appreciated!

Please return the survey in the envelope provided to:

Farmers' Market Study

Attn: Crystal Miller

480 Wilson Road, Room 131

East Lansing, MI 48824-1222

Dear Farmer Market Manager,

I am reaching out to you to collect information that will help create a clear picture of the bridges and barriers for food system players and stakeholders to collaborate in Southeast Michigan.

***You must be 18 years of age or older in order to participate in this survey. Your participation is completely voluntary and you may withdraw your participation at any time. Thank you in advance for being part of this study and helping to strengthen Southeast Michigan's local and regional food systems.**

Contact Information for Questions and Concerns:

If you have any questions about your role and rights, such as scientific issues, how to do any part of it, or to report an injury, please contact the research: Crystal Miller, Department of CARRS, Michigan State University, 131 Natural Resources Bldg., 480 Wilson Rd., East Lansing, MI 48824-1115; mill1879@msu.edu; (517) 353-0803.

If you have any questions about your role and rights as a research participant, or would like to register a complaint about this study, you may contact, anonymously if you wish, the MSU's Human Research Protection Programs, at (515) 355-2180, FAX (517) 432-4503, or e-mail irb@msu.edu, or regular mail at Olds Hall, MSU, East Lansing, MI 48824.

By checking the box, I agree to participate in the survey.

☐

1) Please select any of the following activities in which you have partnered/collaborated with other food system players/sectors (e.g., other farmers' market managers, processors) (Please check all that apply)

- ☐ Opening your market venue for others to use (i.e. CSA pick-up for farmers)
 - ☐ Engaging in or supporting an event (financially or non-financially) to promote yourself or other food system players
 - ☐ Engaging in or supporting an event (financially or non-financially) in support of local and sustainable food systems
 - ☐ Helping farmers combine their product to sell to larger local buyers (e.g. institutional buyers)
 - ☐ Participating in local food policy councils
 - ☐ Actively advocating for policy change that supports sustainable farming or agriculture
 - ☐ Other (Please specify):
 - ☐ No, I have not partnered or collaborated with other food system players/sectors
-

****If you have not partnered/collaborated, please skip to QUESTION 5.***

2) We are interested in the return on investment you receive from collaboration with other food system players/sectors. Please consider the FINANCIAL AND NON-FINANCIAL contributions you have made, as well as the FINANCIAL AND NON-FINANCIAL benefits you have received from collaborating, and rate the investment from a poor return (1) to an excellent return on investment (5).

	Very Poor Return on Investment		Neutral		Excellent Return on Investment
	1	2	3	4	5
Opening your market venue for others to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engaging in or supporting an event (financially or non-financially) to promote yourself or other food system players.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engaging in or supporting research (financially or non-financially) in support of local and sustainable food systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping farmers to combine their product to sell to larger local buyers (e.g. institutional buyers).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participating in local food policy councils.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Actively advocating for policy change that supports sustainable farming or agriculture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3) Please list the FINANCIAL AND NON-FINANCIAL contributions you have made, or may make, when collaborating with other food system players:

Please share:

4) We are interested in the benefits you expect to see from partnering/collaborating with other food system players/sectors. Please use the scale below, with one (1) being never and five (5) being almost always.

Partnering/collaborating with other food system players/sectors will...

	Never 1	2	Sometimes 3	4	Every Time 5
...result in me spending less time on marketing the farmers' market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...allow me to increase the return of investment for the market (e.g. financial or non-financial).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...allow me more time to develop new programs, events, etc. at the market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help strengthen my relationships with other food system players/sectors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help me feel like I'm contributing to my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...increase my knowledge of local food systems so I can better educate vendors and customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help me be more effective in my field work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5) Which of the following benefits would *help the farmers' market* the most in a partnership/collaboration with other food system players/sectors?

	Not Helpful 1	2	Neutral 3	4	Very Helpful 5
Spending less time marketing the market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increasing my return on investment (e.g. financial or non-financial).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having more time to develop new programs or business ventures for the market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strengthening my relationships with other food system players/sectors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased access to other food system players/sectors (e.g. consumers, distributors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having a better reputation within our local food community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increasing my knowledge of local food systems so I can better educate vendors and customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping me be more effective in my field of work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6) Please indicate how interested you are to engage in any of the following activities on behalf of the market.

	Not at all 1	2	Neutral 3	4	Very much 5
Opening your farmers' market venue for others use (i.e. CSA pick-up for farmers).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helping farmers combine product to sell to large, local institutional buyers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financially contribute to an event that promotes the market or other partners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volunteer your time or other non-financial resources for joint local marketing efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jointly fund marketing that promotes your local/regional food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contribute support (financial or non-financial) to build local food distribution infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contribute support (financial or non-financial) to advocate for policy change that supports a sustainable local/regional food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7) Considering the benefits, costs, and risks to collaboration, are there ways you prefer to interact with other food system players? Check all that apply.

- ☐ I avoid other food system player's requests to collaborate.
- ☐ I agree to collaborate, but don't really participate.
- ☐ I prefer to be a leader instead of working collaboratively.
- ☐ I prefer to focus more on being a competitive food system player, rather than a collaborator.
- ☐ Other (*please specify*):

8) If you do not collaborate, please select all the reasons why. Check all that apply.

<input type="checkbox"/>	I don't have the time.
<input type="checkbox"/>	My costs to collaborate outweigh the benefits.
<input type="checkbox"/>	I am not sure of the possible benefits.
<input type="checkbox"/>	Other collaborators would benefit more than the market would.
<input type="checkbox"/>	The market doesn't benefit enough from partnering/collaborating with others.
<input type="checkbox"/>	Depending on others is too risky.
<input type="checkbox"/>	Other (please specify):

9) Please rate how interested you are in local food movements.

	Not at all Interested 1	2	Neutral 3	4	Very Interested 5
Level of interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10) How important do you think collaboration is to local food movements?

	Not at all Important 1	2	Neutral 3	4	Very Important 5
Collaboration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11) Thinking about all the ways to collaborate, to what extent do you agree or disagree with the following statement.

	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
The more effort I give to collaborating, the more benefits I will receive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12) Farmers' markets play many roles; please indicate the extent to which you agree or disagree with the following:

Farmers' markets should...	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
...ensure customers have freedom to explore the market without purchasing anything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...work to make the farmers market a place where people can socialize.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...help educate customers about the local food system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...make sure the farmers market is an enjoyable experience for customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...provide an attractive market space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...provide customers with added services/experiences (e.g. cooking demonstrations, free samples, and information).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13) To what extent do you agree or disagree with the following statement?

	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
I help provide a leisure experience at the farmers' market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14) We all have our own ideas about what leisure is. Thinking about a farmers' market, please indicate how strongly you agree or disagree with the following statement.

	Strongly Disagree 1	2	Neutral 3	4	Strongly Agree 5
Farmers' markets provide a leisure experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16) To what extent do you agree or disagree with the following statements?

People go to farmers markets to...	Strongly Disagree		Neutral		Strongly Agree
	1	2	3	4	5
...relax physically.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...feel free to choose what they want to do or buy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...tell others about the market.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...have others think highly of them for going.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...do something with their family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...have a pleasurable experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...be with people who have similar values.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...meet other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...get away from the usual demands of life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...learn about things while there.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...obtain fresh produce.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...access locally produced food.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...support local agriculture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...just buy groceries.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...support their local economy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...to get what they need.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15) Managing the farmers' market is...

<input type="checkbox"/> ...my full-time occupation.
<input type="checkbox"/> ...a part-time occupation.
<input type="checkbox"/> ...volunteer work.

17) How many vendors does the farmers' market you manage host? _____

18) How many years have you been a farmers' market manager? _____

19) How long has your farmers' market been in operation? _____

20) What is your five digit zip code for your farming location? _____

21) What year were you born? _____

24) What is your gender? _____

22) What is the highest level of formal education you have completed?

- ☐ Less than 12 years
- ☐ High school graduate/GED
- ☐ Some college
- ☐ College degree
- ☐ Advanced degree

Thank You for completing the survey.

Your time and input is greatly appreciated!

Please return the survey in the envelope provided to:

Farmers' Market Study

Attn: Crystal Miller

480 Wilson Road, Room 131

East Lansing, MI 48824-1222

Appendix B: Survey Materials

Postcard sample

-Front-

MICHIGAN STATE
UNIVERSITY

Farmers' Market Study
480 Wilson Rd., R. 131
East Lansing, MI 48824-1222

JANE DOE
ADDRESS HERE
CITY, STATE, ZIP

-Back-

May 16, 2013

Dear Farmer/Producer,

Last week I sent you a questionnaire because your name was selected to help with an important study to inform the development of a more sustainable food system in Southeast Michigan. As I mentioned in the letter that accompanied the questionnaire, our survey period is short. I hope that you will have the chance to respond quickly so we can include your input.

If you have already completed the paper questionnaire, please accept my sincere thanks. If not, please complete the questionnaire as soon as you are able. I am very grateful for your help with this important study.

If you did not receive a questionnaire, or if it was misplaced, please call me at (517) 432-0288, or email me at mill1879@msu.edu and I will send another one to you in the mail right away. You can also access the survey online at: <http://tinyurl.com/d22c88z>. Once there, please enter the following code: «ID». Thank you in advance for your time.

Sincerely,

Crystal Miller,
Graduate Student

Sample – Farmer Pre-Notice Letter

MICHIGAN STATE
U N I V E R S I T Y

May 3, 2013

Dear Producer/Farmer,

I am writing to ask for your help in understanding factors that influence collaboration among local and regional food system stakeholders (e.g. farmers, distributors) in Southeast Michigan. The best way to learn about these factors is by asking key people like you to share their thoughts and opinions. In the next few days you will receive a request to participate in this study by answering questions about your experiences collaborating with other food system stakeholders.

I would like to do everything I can to make it easy and enjoyable for you to participate in this study. I am writing in advance because many people like to know ahead of time that they will be asked to fill out a questionnaire. This research can only be successful with the generous help of people like you.

I hope you will take 10-15 minutes of your time to help me. Most of all, I hope that you enjoy the questionnaire and the opportunity to voice your thoughts and opinions about collaborating with others in the Southeast Michigan's local and regional food systems.

Best wishes,

Crystal L. Miller
Graduate Student

Sample – Farmer Cover Letter

MICHIGAN STATE
U N I V E R S I T Y

May 10, 2013

Dear Farmer/Producer,

I am writing to ask for your help in understanding factors that influence collaboration among local and regional food system stakeholders (e.g. farmers, distributors) in Southeast Michigan. The best way to learn about these factors is by asking key people like you to share their thoughts and opinions. You have been selected to participate in this study to ensure we hear from a variety of farmers and producers in your area.

The questionnaire should only take about 10-15 minutes to complete. If there is more than one farmer/producer in your operation, please have the adult (age 18 or over) with the most recent birthday be the one to complete the questionnaire. Our study period is short and I hope that you will have the chance to respond quickly so that I can reflect your input in my research.

Your responses are voluntary and will be kept anonymous. If you have any questions about this questionnaire, please contact me by telephone at 517-432-0295 or by email at mill1879@msu.edu.

By taking a few minutes to share your experiences and opinions about collaboration in Southeast Michigan you will be helping the food system community out a great deal. Your answers will help inform the development of a more sustainable food system in Southeast Michigan.

I hope that you enjoy the questionnaire and I look forward to receiving your responses.

Many Thanks,

Crystal L. Miller
Graduate Student

Sample - Final Contact Letter of Invitation

MICHIGAN STATE
U N I V E R S I T Y

May 24, 2013

Dear Farmer/Producer,

Earlier this month I sent a letter to you that asked for an adult (age 18 or over) to complete a questionnaire about factors that influence collaboration among local and regional food system stakeholders (e.g. farmers, distributors) in Southeast Michigan. To the best of my knowledge, it has not yet been returned.

I am writing again because of the importance that your feedback has for helping to get accurate results. Only by hearing from everyone selected to participate in the study can I be sure that the results truly represent the Southeast Michigan area. Therefore, I hope you will fill out the questionnaire soon. If more than one adult is available to participate, please have the person with the most recent birthday complete the questionnaire.

As mentioned before, the questionnaire should only take about 10-15 minutes to complete. Your responses are voluntary and will be kept confidential. Our study period is short and I hope that you will have the chance to respond quickly so that I can reflect your input in my research.

If you prefer, you can access the survey online at: <http://tinyurl.com/d22c88z>. Once there, please enter the following code: .

If you have any questions about this questionnaire, please contact me by telephone at 517-432-0288 or by email at mill1879@msu.edu.

I hope that you enjoy the questionnaire and I look forward to receiving your responses.

Many Thanks,

Crystal L. Miller
Graduate Student

LITERATURE CITED

LITERATURE CITED

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CHAPTER 3

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE STUDY

Study Limitations

This exploratory study was focused on the specific region of Southeast Michigan and included seven counties. Because of this specific focus, a census approach was used in attempt to survey every possible farmer and farmers' market manager in the region. The list of farmers and farmers' markets located within the study area was compiled via internet searches of databases including, but not limited to the Michigan Farmers Market Association (MIFMA) database, Local Harvest database, and Real Time Farms.com, as well as assistance from MSU Extension, OCPR staff, and Detroit's Eastern Market Corporation. The researcher used the full Dillman method and gave participants a choice of a paper or online survey in attempt to recruit a large response rate (Dillman, Smyth, and Christian, 2009). Unfortunately due to the small population of farmers and FM MNGRs in Southeast Michigan available to invite to participate, the researchers' ability to obtain a large response rate was significantly reduced. It cannot be determined if every possible farmer and farmers' market manager was invited to participate, nor was a non-respondent survey completed for respondents who did not complete the questionnaire. Therefore, I cannot definitively claim the respondents are representative of all farmers and farmers' market managers in Southeast Michigan.

Another limitation of this study is the response rate and high number of unanswered questions on the completed questionnaires. This made it difficult to analyze the data using regression analysis, which is the most common type of analysis when applying expectancy theory as a theoretical framework. While this study developed its design and survey instruments from existing models that used regression analysis, I conducted frequency counts, descriptive

statistics, and crosstab analysis due to the low response rate. Using crosstab analysis to examine expectancy and valence in this study resulted in several expected frequency counts below five. There has been debate about the validity of using chi-square (crosstabs) when expected counts are less than five, but according to Everitt (1992), this number can be relaxed (as cited in Vaske, 2008). Nevertheless, in order to strengthen future studies and address this limitation, a larger response rate is needed to achieve expected frequency counts of at least five with no more than 20% of expected counts resulting in less than five in order to use crosstab analysis in future studies. Because of this limitation, results of crosstab analysis is located in Appendix C as a Supplemental Analysis.

Lastly, the survey instruments included several open-ended questions focused on eliciting the costs (financial and non-financial) of collaborating for farmers and FM MNGRs, as well as an option to write-in an answer if offered responses for questions did not apply to the respondent. Unfortunately, these open-ended questions did not provide useful answers or did not elicit a response from respondents. This may be due to increased response burden for respondents (Vaske, 2008) and thus, these questions were eliminated. Future research focused on identifying costs of collaboration for stakeholders should develop closed-ended or fixed-ended questions for survey research or conduct interviews in order to increase response rate.

Recommendations for Future Study

In the past decade, Michigan's food and agriculture industry has grown at a rate five times faster than the general economy (USDA, NASS, Michigan Agricultural Statistics, 2010-2011), and with the Southeast Michigan region comprising just over 10% of the farms in Michigan (USDA, NASS, 2007), the region is prime for regional food system development. To further understand the motivation of farmers and farmers' market managers to collaborate in a

regional food system, a qualitative analysis of expectancy and valence of stakeholder groups can help explain the majority of participation in a only few select areas of collaboration, despite fairly high mean scores of expectancy, valence, and interest in local food movements. Specifically, further research to see if stakeholders comprehend the wide array of potential benefits from collaboration will help champions of regional food system development better communicate with farmers and farmers' market managers. It is suggested a qualitative approach in the form of in-depth interviews is conducted in order to identify underlying assumptions, meanings, and understanding of regional food system collaboration and its benefits. Also, by doing a more in-depth qualitative analysis, an understanding of the amount of effort stakeholders exert in *each* collaborative initiative they participate in (not just *if* they have collaborated) may help clarify farmer respondents low mean score for perceived motivation to collaborate yet relatively high mean score of perceived importance of collaboration.

Farmer respondents also reported that “feeling like I’m contributing to my community” is a highly valued benefit of collaboration, yet report they prefer to focus more on being a competitive food system player, rather than a collaborator. Because of this disconnect, future research should focus on how farmers define “community” and how this impacts their view of regional food systems, as well as their view of collaboration within these systems.

Additionally, this study measured two of three components of expectancy theory (expectancy and valence) for farmers and farmers' market managers to gain an understanding of their motivational process when choosing to collaborate. This was specifically done because instrumentality (the third component of expectancy theory) was not clear within the context of this study. A qualitative research approach to understanding motivation within the context of

food system collaboration may be able to identify a way to measure instrumentality and further substantiate the findings of this study's use of expectancy theory.

Lastly, because this study took a census approach to surveying all farmers and farmers' market managers in the study area, a non-respondent survey should be completed to determine if results of this study are representative of all farmers and farmers' market managers in Southeast Michigan.

APPENDIX

Appendix C: Supplementary Cross-tab Analysis

Table 4.1 FM MNGR: Collaboration Participation x Expectancy Cross-tabulation

			Expectancy Level		Total
			1	2	
Collaboration Participation	1	Count	11	7	18
		Expected Count	8.6	9.4	18.0
		% within Collaboration Participation	61.1%	38.9%	100.0%
		% within Expectancy Level	100.0%	58.3%	78.3%
		% of Total	47.8%	30.4%	78.3%
	2	Count	0	5	5
		Expected Count	2.4	2.6	5.0
		% within Collaboration Participation	0.0%	100.0%	100.0%
		% within Expectancy Level	0.0%	41.7%	21.7%
		% of Total	0.0%	21.7%	21.7%
Total		Count	11	12	23
		Expected Count	11.0	12.0	23.0
		% within Collaboration Participation	47.8%	52.2%	100.0%
		% within Expectancy Level	100.0%	100.0%	100.0%
		% of Total	47.8%	52.2%	100.0%

Table 4.2 Chi-Square: FM MNGR - Participation x Expectancy Cross-tabulation

Chi – Square Tests					
	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-Sided)
Pearson Chi-Square	5.856 ^a	1	.016	.037	.024
Continuity Correction ^b	3.663	1	.056		
Likelihood Ratio	7.784	1	.005		
Fisher's Exact Test	5.602	1	.018		
Linear-by-Linear Association	23				
N of Valid Cases					
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.39.					
b. Computed only for 2x2 table.					

Table 4.3 FM MNGR: Collaboration Participation x Valence Cross-tabulation

			Valence Level		Total
			1	2	
Collaboration Participation	0	Count	1	8	9
		Expected Count	2.3	6.8	9.0
		% within Collaboration Participation	11.1%	88.9%	100.0%
		% within Valence Level	12.5%	33.3%	28.1%
		% of Total	3.1%	25.0%	28.1%
	1	Count	7	11	18
		Expected Count	4.5	13.5	18.0
		% within Collaboration Participation	38.9%	61.1%	100.0%
		% within Valence Level	87.5%	45.8%	56.2%
		% of Total	21.9%	34.4%	56.2%
	2	Count	0	5	5
		Expected Count	1.3	3.8	5.0
		% within Collaboration Participation	0.0%	100.0%	100.0%
		% within Valence Level	0.0%	20.8%	15.6%
		% of Total	0.0%	15.6%	15.6%
Total		Count	8	24	32
		Expected Count	8.0	24.0	32.0
		% within Collaboration Participation	25.0%	75.0%	100.0%
		% within Valence Level	100.0%	100.0%	100.0%
		% of Total	25.0%	75.0%	100.0%

Table 4.4 Chi-Square FM MNGR - Participation x Valence Cross-tabulation

Chi – Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.444 ^a	2	.108
Likelihood Ratio	5.654	2	.059
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	32		
a. 4 cells (66.7) have expected count less than 5. The minimum expected count is 1.25.			

Table 4.5 Farmer: Collaboration Participation x Expectancy Cross-tabulation

			Expectancy Level		Total
			1	2	
Collaboration Participation	1	Count	10	10	20
		Expected Count	8.8	11.2	20.0
		% within Collaboration Participation	50.0%	50.0%	100.0%
		% within Expectancy Level	90.9%	71.4%	80.0%
		% of Total	40.0%	40.0%	80.0%
	2	Count	1	4	5
		Expected Count	2.2	2.8	5.0
		% within Collaboration Participation	20.0%	80.0%	100.0%
		% within Expectancy Level	9.1%	28.6%	20.0%
		% of Total	4.0%	16.0%	20.0%
Total		Count	11	14	25
		Expected Count	11.0	14.0	25.0
		% within Collaboration Participation	44.0%	56.0%	100.0%
		% within Expectancy Level	100.0%	100.0%	100.0%
		% of Total	44.0%	56.0%	100.0%

Table 4.6 Chi-Square: Farmer – Participation x Expectancy Cross-tabulation

Chi – Square Tests				
	Value	Df	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.461 ^a	1	.341	.245
Continuity Correction ^b	.497	1		
Likelihood Ratio	1.567	1		
Fisher's Exact Test				
Linear-by-Linear Association	1.403	1		
N of Valid Cases	25			
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.20. Computed only for a 2x2 table.				

Table 4.7 Farmer: Collaboration Participation x Valence Cross-tabulation

			Valence Level		Total
			1	2	
Collaboration Participation	1	Count	8	13	21
		Expected Count	6.5	14.5	21.0
		% within Collaboration Participation	38.1%	61.9%	100.0%
		% within Valence Level	100.0%	72.2%	80.8%
		% of Total	30.8%	50.0%	80.8%
	2	Count	0	5	5
		Expected Count	1.5	3.5	5.0
		% within Collaboration Participation	0.0%	100.0%	100.0%
		% within Valence Level	0.0%	27.8%	19.2%
		% of Total	0.0%	19.2%	19.2%
Total		Count	8	18	26
		Expected Count	8.0	18.0	26.0
		% within Collaboration Participation	30.8%	69.2%	100.0%
		% within Valence Level	100.0%	100.0%	100.0%
		% of Total	30.8%	69.2%	100.0%

Table 4.8 Chi-Square: Farmer - Participation x Valence Cross-tabulation

Chi – Square Tests					
	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.751 ^a	1	.097	.281	.130
Continuity Correction ^b	1.254	1	.263		
Likelihood Ratio	4.186	1	.041		
Fisher's Exact Test					
Linear-by-Linear Association	2.646	1	.104		
N of Valid Cases	26				
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 1.54.					
b. Computed only for a 2x2 table.					

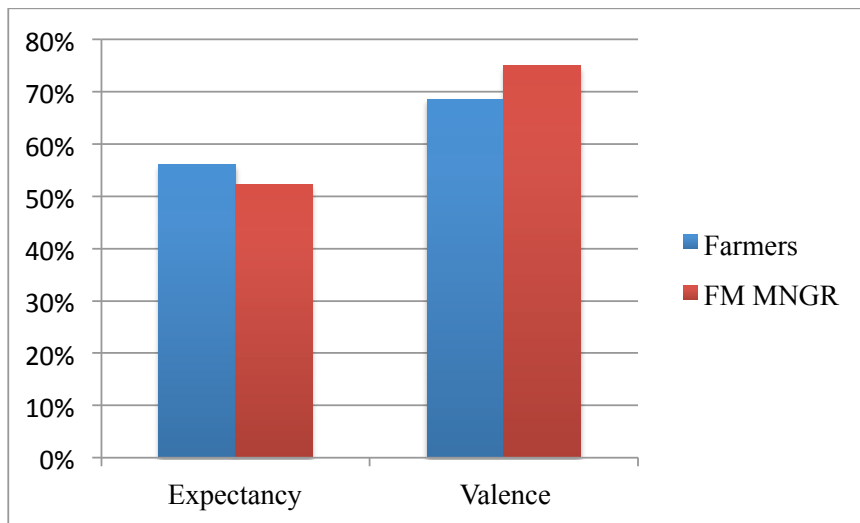


Figure 4. High Levels of Segmented Motivational Components for Farmers and FM MNGRs

Explanation of Crosstab Analysis

The mean score for expectancy, valence, and collaboration participation were segmented and coded into low (1) or high (2) levels for each variable with a mean score of 1 to 3.4 being low (1) and a mean score of 3.5 to 5 being high (2). More than half the farmer respondents have a high level of expectancy (56%), similar to FM MNGR's respondents with also just over half having high expectancy levels (52.2%), whereas FM MNGR respondents have more high levels of valence (75%) than farmers (68.6%).

Crosstab analysis of both group of respondents' motivation components (expectancy and valence) compared to the level of participation in collaborative initiatives revealed various findings. For expectancy, 56% of farmers had high expectancy, but of those respondents, 80% had low participation collaborating. Similarly, FM MNGR respondents also had over half with

high expectancy with 78.3% of those having low participation collaborating. Of the 5 farmers having high participation collaborating, 4 also have high expectancy.

For valence, farmer respondent findings show 69.2% with high valence, yet of these, 61.9% had low participation collaborating. Only 5 farmer respondents had high participation collaborating and all 5 had high valence. FM MNGR respondent findings for valence and participation collaborating revealed of the 24 with high valence, 33.3% had not collaborated, 45.8% had low participation collaborating, and 20.8% had high participation collaborating.

LITERATURE CITED

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