AN ABSTRACT OF THE THESIS OF

Kristin E. Pool for the degree of Master of Science in Horticulture presented on December 9, 2014

Title: Farmer Perspectives on Success and Challenges: A Study of Small Farms in Oregon’s Willamette Valley

Abstract approved:

Garry Stephenson

This thesis investigates the success of and challenges facing small farmers operating direct marketing farm businesses in Oregon’s Willamette Valley. This qualitative study utilizes participatory methods to gain the unique perspectives of small farmers regarding their success and challenges. Small farms are important players in local food systems and ensuring their success is an important part of expanding and sustaining local food systems. Findings provide a framework describing four dimensions of small farm success: social, operational, quality of life, and financial. The farmers in this study see financial success as a vital component of overall success, but acknowledge that financial success is not itself a success if achieved to the exclusion of other dimensions of success. This study developed four models for how small farmers perceive financial success: financial success as the baseline of overall success, equal dimensions of success, interdependent dimensions of success, and financial success as a gauge of overall success.
Impeding small farm success are internal and external challenges that small farmers must navigate through the negotiation of the farm system and scale. Beginning and experienced farmers face the same challenges, but beginning farmers report internal challenges, land access, and access to capital at greater rates than experienced farmers. Experienced farmers speak more frequently about policy and regulations, and labor as challenges. Findings improve understanding of these innovative businesses, with implications for research, education, and small farm planning.
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Farmer Perspectives on Success and Challenges: A Study of Small Farms in Oregon’s Willamette Valley

by

Kristin E. Pool

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APPROVED:

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Major Professor, representing Horticulture

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Head of the Department of Horticulture

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Dean of the Graduate School

I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

________________________________________
Kristin E. Pool, Author
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Foremost, I am thankful to the farmers that participated in this study for openly sharing and generously giving their limited time to this study. Beyond their participation in the study, I am grateful to the small farmers I have the pleasure of working with for inspiring this work. Their dedication to providing our communities with healthy food and stewarding the land is honorable.

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I’d like to thank Matt, for his support and love, which have brought me back to the present after long hours of work. He has helped me smile and appreciate life while completing this thesis. Finally, I’d like to thank all my family and friends, for their patience and for the space they gave me to complete this project.
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Chapter 1: Introduction

[T]he standards required to measure the qualities of farming are not just scientific or economic or social or cultural, but all of those, employed all together. (Berry, 2002, p. 24)

This thesis investigates farmer perspectives on the success of and challenges facing small farmers operating direct marketing farm businesses in Oregon’s Willamette Valley. This thesis is presented in manuscript format. This chapter provides an orientation to the thesis. It presents the study objectives and relevance, lays out the main points to be addressed in the literature review, and describes the manuscript format, thesis layout, and voice.

This highly participatory study utilizes multiple methods including semi-structured interviews, farmer focus groups, participant observation, and farmer advisors—two farmers acting as key informants and advisors. These methods are combined to gain understanding of the farmers’ perspective on the success of and challenges facing small farmers. Specifically, this study addresses three questions:

1. What criteria do small farmers use to evaluate their success?
2. What challenges do small farmers face?
3. Do beginning and experienced farmers face different challenges?
This study presents literature that shows the role of small farms in local food systems. Although farms of a variety of sizes participate in local food systems, small direct marketing farms are key players. Ensuring the success of these small farms is an important part of expanding and sustaining local food systems. Local food systems and the farms supplying these systems have been shown to have positive economic, health, and environmental impacts.

The success of small farms participating in local food systems is more than economic, and yet economic indicators are the primary tools used to evaluate their success. A growing body of small business literature describes the importance of the entrepreneur in determining small business success and finds that non-financial measures of successes are important to firm survival. Understanding the full range of small farm success could improve how small farms are viewed and the role these businesses play in our society. A broader understanding of these businesses may reveal weakness that can be addressed to improve small farm viability.

The challenges facing small farmers are not well understood. Previous research has not focused on the small farms, instead investigating challenges to direct marketing, local food systems, urban agriculture, organic agriculture, or beginning farmers. Additionally, the methods used in previous studies have not provided farmers the opportunity to fully express their view on challenges facing their farm businesses. Qualitative methods ground this research in the farmers’ perspective to understand what challenges they face and investigate potential differences in the challenges faced by beginning and experienced farmers.
This thesis includes five chapters followed by the references cited and appendices sections. Chapter 1 provides an orientation of the thesis. Chapter 2 is a complete review of the literature relevant to unifying theme of the manuscripts—the success of and challenges facing small farmers operating direct marketing farms in the Willamette Valley of Oregon. The chapter presents definitions of small farms, direct marketing, and beginning farmers and continues with a presentation of studies on small business success and small farm success. Because this work focuses on direct marketing farms, which play a vital role in the local food movement—a social movement to develop and support alternatives to the industrial food system—the chapter reviews the related literature. The chapter ends by addressing the literature on challenges that affect small farmers.

The results are presented as two manuscripts, Chapter 3 and Chapter 4. Because these chapters are written as stand alone manuscripts, there is some repetition in the introductions, methods, and demographics sections. Chapter 3 focuses on small farm success and includes a review of the literature on small business success and small farm success. Chapter 4 covers challenges facing small farmers and contains a review of the literature on challenges that affect small farmers.

Chapter 5 presents general conclusions that span both topics, tying them together in a broader discussion on small farms and the implications of this study. Following chapter 5 are the references cited and appendices sections. Appendix A provides an in-depth description of the methods used in this study. Appendix B consists of the questionnaire used in the semi-structured interviews.
Sections of this thesis are written in first person. First person is used to fully acknowledge the role I played as the primary researcher in this study. The methods are the primary example of the use of first person. I relied on first person to describe my place within the community and my role in the data collection process.
Chapter 2: Review of the Literature

This literature review covers topics related to small direct marketing farms, small business success and the challenges small farmers face. The review begins by outlining definitions of small farms and critiques of those definitions. The next sections discusses transitions in American agriculture and defines beginning farmers and direct marketing farms. Direct marketing farms commonly sell into local market channels as part of local food systems. Some researchers have defined the growth of local food systems as a social movement. The review covers the definition, impacts, and growth of the local food movement throughout the nation, as well as in Oregon. Literature on small business success is presented, followed by a summary of previous studies on small farm success. The review concludes by outlining research on challenges in local food systems that impact small direct marketing farms and beginning farmers.

Defining Small Farms

Small farms are a diverse group of producers which lack a common definition. Internationally there are a variety of terms used to define and describe small farms. Small farm is used interchangeably with other terms including subsistence farm, smallholder, low-income farm, low-technology farm, and family farm (Nagayets, 2005). Nagayets (2005) noted that these terms highlight the diversity of small farms. The terms also indicate the range of indicators used to define small farms. Indicators include land or
livestock holdings, gross sales, the quantity and type of labor, family ownership and operation, assets, mix of subsistence and commercial production, and production practices (Food and Agriculture Organization of the United Nations, 2012; Nagayets, 2005). Land holdings, expressed in the United States as acreage, is one of the most common indicators used to define small farms (Hoppe & MacDonald, 2013; Nagayets, 2005).

In the United States farm size is most frequently evaluated in terms of acreage or gross sales (Hoppe & MacDonald, 2013). Acreage is commonly reported as an indicator of farm size in agricultural census statistics (For example, USDA National Agricultural Statistic Service, 2014b). In 1981, the USDA report *A Time to Choose: A Summary Report on the Structure of Agriculture* argued for the creation of categories to better represent the growing diversity of farms (Bergland & Sechler, 1981). This report categorized farms in the United States based on gross sales and farm income. The USDA National Commission on Small Farms—appointed by the Secretary of Agriculture in 1997—continued the use of gross sales to define small farms in their 1998 report, *A Time to Act: A Report of the USDA National Commission on Small Farms*. Definitions used by the USDA Economic Research Service (ERS) and the United States Small Business Administration (SBA) continued to use gross sales (Hoppe & MacDonald, 2013; SBA, 2013).

The gross sales threshold used to define small farms has varied from $250,000 to $750,000. The USDA National Commission on Small Farms defined small farms for the purpose of their study as farms with annual gross receipts of less than $250,000 (USDA
National Commission on Small Farms, 1998). The USDA ERS adopted this definition (USDA ERS, 2000) and recently updated it to take into account increasing production costs (Hoppe & MacDonald, 2013). The updated definition defines small farms as family farms receiving gross cash farm income (GCFI)\(^1\) less than $350,000 (Hoppe & MacDonald, 2013). The SBA (2013) defines small agricultural businesses by production type. For the majority of production types the cutoff for small farms is annual gross receipts less than $750,000 (SBA, 2013); just over two times the 2013 USDA definition.

**USDA Farm Typologies**

The USDA farm typologies arose out of the need to better characterize the wide range of farms in the United States (USDA ERS, 2000). First developed in 2000 and updated in 2005 and 2013, the farm typologies categorize farms based on the combination of three indicators: family ownership, annual gross sales, and primary occupation (Hoppe & MacDonald, 2013). As Table 2.1 shows, Hoppe and MacDonald (2013) first separated family farms, defined as one family owning the majority of the farm business, from non-family farms. Hoppe and MacDonald then categorized family farms into small, midsized and large-scale based on GCFI. Lastly, they divided small farms into categories based on the primary occupation of the operator; these categories included farming occupation, off-farm occupation, and retirement farms (Hoppe & MacDonald, 2013).

---

\(^1\) GCFI is gross receipts minus income not accrued by the farm business directly. Most commonly money not accrued to the farm is directed to contractor holders and landlords (Hoppe & MacDonald,
### Table 2.1

**2013 USDA Farm Typologies**

<table>
<thead>
<tr>
<th>Farm Type</th>
<th>Operator’s primary occupation (50% or more of work time)</th>
<th>Farm Size</th>
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<tr>
<td>Small family farms</td>
<td>Varies</td>
<td>GCFI less than $350,000</td>
</tr>
<tr>
<td>Retirement farms</td>
<td>Retired</td>
<td>GCFI less than $350,000</td>
</tr>
<tr>
<td>Off-farm occupation farms</td>
<td>Nonfarm</td>
<td>GCFI less than $350,000</td>
</tr>
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<td>Farming Occupation farms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-sales</td>
<td>Farming</td>
<td>Less than $150,000</td>
</tr>
<tr>
<td>Moderate-sales</td>
<td>Farming</td>
<td>$150,000 to $350,000</td>
</tr>
<tr>
<td>Midsize family farms</td>
<td>Not a criterion</td>
<td>GCFI $350,000 to $999,999</td>
</tr>
<tr>
<td>Large-scale family farms</td>
<td>Not a criterion</td>
<td>GCFI $1,000,000 or more</td>
</tr>
<tr>
<td>Large family farms</td>
<td>Not a criterion</td>
<td>Farms with GCFI between $1,000,000 and $4,999,999</td>
</tr>
<tr>
<td>Very large family farms</td>
<td>Not a criterion</td>
<td>Farms with GCFI of $5,000,000 or more</td>
</tr>
<tr>
<td>Nonfamily farms</td>
<td></td>
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</tbody>
</table>


### Critiques of Small Farm Definitions

Small farm definitions in the United States have been criticized for not capturing the variation and vitality of small farms. These critiques have focused on the indicators used to characterize small farms including: acreage, gross sales, family ownership, and primary occupation.
**Acreage.** Acreage is an important farm characteristic, but acreage is not an adequate indicator of farm size because it does not take into account variation in land holdings and farming systems. Each piece of land has unique soil quality, water resources, vegetation, and climate (Hoppe & Banker, 2010; Hoppe & MacDonald, 2013; Nagayets, 2005). Additionally, farm systems vary in production type, how intensively the natural resources are managed, access to agricultural inputs (Hoppe & MacDonald, 2013), and market opportunities (Nagayets, 2005). For instance, one acre of arid pastureland used to graze cattle a few months out of the year, does not have the same output or demand the same management as an acre of quality soil in diversified vegetable production. Nor are either equivalent to an acre under intensive year-round greenhouse production.

**Gross sales.** The use of gross sales to define farm size does not result in discrete comparable categories of farms. In his book *Family Farming: A New Economic Vision*, Strange (1988) criticized the use of gross sales as the measure of farm size for being inconsistent over time and creating overly broad categories. For example, Strange argued that changes in commodity prices may result in large annual fluctuations of farms between size categories making it difficult to see any long-term trends. He criticized the lack of characterization of farms within economic size categories, stating that when farms with equal sales, but a variety of production strategies and net incomes are grouped together the diversity of small farms is obscured (Strange, 1988).

A decade later the USDA National Commission on Small Farms (1998) noted that the operating definition it developed based on annual gross sales obscured small farm diversity. They determined that the focus of their study was farms with gross receipts of
less than $250,000 and this became the dominant definition of small farms in the United States. However, the Commission stated that their definition was not intended to be used as an eligibility guideline, but rather it was intended to define their study population, a group of farms in need of assistance to improve net farm income at the specific time of the report (USDA National Commission on Small Farms, 1998). In the report they acknowledged the limits to their categorization of farms merely by gross sales stating that the categorization masked the variety of farms.

In accordance with Strange (1988) and the USDA National Commission on Small Farms’ (1998) concerns, the USDA definition of small farms (GCFI of less than $350,000) is overly broad, describing 91% of farms in the United States (Hoppe & MacDonald, 2013). This can be described in part by the USDA’s definition of a farm (O’Donoghue, Hoppe, Banker, & Korb, 2009). The USDA defines a farm as an entity that produces or has the capacity to produce $1000 in agricultural sales (USDA ERS, 2014). Under this definition, more than 25% of the farms in the 2007 census of agriculture had no annual sales and another 30% of farm had annual sales of less than $10,000 (USDA ERS, 2014).

**Primary occupation.** Using primary occupation as an indicator was proposed to distinguish *actively engaged farms* from *hobby farms* (O’Donoghue et al., 2009). In the previous version of the USDA farm typologies, the off-farm occupation farms were titled residential/lifestyle farms (Hoppe & MacDonald, 2013). This highlights the assumption that if farm owners have another occupation then their farm is not valid (Jolly, 1993).
However, it is common for farm operators and/or their partners to have off-farm employment.

A large percentage of farms in the United States have at least one member of the household working off the farm (Brown & Weber, 2013; Hoppe & Banker, 2010). The 2007 Agricultural Marketing Service Survey found that 55.6% of large farms and 55.9% of small farms reported either the farm operator, their spouse, or both partners worked off the farm (Hoppe & Banker, 2010). Off-farm employment can be an important strategy for farm households to supplement income, manage risk, gain health insurance benefits, and improve their satisfaction with their occupation (Brown & Weber, 2013; Goodwin & Mishra, 2004; Oregon State University Small Farms Program, 2014).

**Family ownership.** The majority of farms in the United States are family farms. The USDA ERS defined family farms as a farm in which greater than 50% of the business is owned and operated by members of one family (USDA ERS, 2014). In 2010 family farms accounted for 97.7% of farms in the United States (Hoppe & MacDonald, 2013).

The USDA’s decision to divide farms at the highest level by family ownership is a reflection of *agrarian ideology*—a common rhetoric of American politics and values in the 19th and early 20th centuries (Knutson, 1995). Knutson (1995) described the rhetoric as viewing farmers on moral high ground and placing the family farm at the base of democracy. Agrarian ideology developed into a discourse known as *agricultural creed*, which drove much of the government support and development of programs to protect family farms (Knutson, 1995). “Its [agricultural creed] application can still be seen in political campaign rhetoric extolling the family farm and lauding the farmer as the
backbone of democracy” (Knutson, 1995, p. 7). Researchers noted that Direct Operating Loans, Direct Ownership Loans, and Emergency Farm Loans programs were among the USDA programs created to support family farms (O’Donoghue et al., 2009).

The USDA’s definition of family farms does not fit with society’s perception of family farms. Researchers have said that Americans equate family farms with small 

*mom-and-pop* farms (O’Donoghue et al., 2009; Perry & Johnson, 1999), but in 2009 the USDA’s definition of family farms described 92% of farms with sales over $250,000 including some of the largest farms in the country (O’Donoghue et al., 2009). Alternative definitions of family farms incorporate size limitations in order to exclude larger farms, which many associate with corporate interests (O’Donoghue et al., 2009).

**American Agriculture: Transition and Opportunity**

The 2012 Agricultural Census revealed that the number of farms in the United States decreased by 4.3% since 2007 (USDA National Agriculture Statistics Service, 2014a). Farms with less than 1,000 acres decreased more than farms with higher acreage (USDA National Agriculture Statistics Service, 2014b). Additionally, the number of farms with less than $500,000 in sales also decreased (USDA National Agriculture Statistics Service, 2014b).

In line with a 30-year trend, the average age of farmers in the United States continued to rise (USDA National Agriculture Statistics Service, 2014a). According to the 2012 Agricultural Census the average age of farmers is 58.3 (USDA National Agriculture Statistics Service, 2014a). The aging farmer population may foreshadow attrition of farm businesses, which may lead to consolidation and loss of farmland,
declining rural communities, as well as the loss of farming tradition and knowledge (Goldschmidt, 1978; Hightower, 1973; Shute, 2011).

Beginning Farmers

To address the growing concern about the increasing age of farmers in the United States, the Agricultural Credit Improvement Act of 1992 put in place beginning farmer assistance (Ahearn & Newton, 2009). The USDA defines beginning farms as those in which the farmer(s) has operated the farm or ranch for 10 years or less (Ahearn & Newton, 2009). Beginning farmers tend to be younger than experienced farmers, with an average age of 49 (Ahearn, 2013). However, researchers have noted that 13% of beginning farmers are retired (Ahearn & Newton, 2009) and 37% are over 50 years old (Ahearn, 2013). Ahearn and Newton (2009) stated that part of the reason for the relatively large percent of middle-aged beginning farmers is the high start-up costs of farm enterprises, which poses a barrier to entry for young beginning farmers.

Beginning farmers face significant challenges in establishing their farms, including finances and access to land (Ahearn & Newton, 2009). Statistics show that beginning farmers tend to rely more heavily on off-farm income (Ahearn & Newton, 2009). The 2012 Agricultural Census reported a 20% decrease in the number of beginning farms since 2007; beginning farmers now make up 22% of all farms (USDA National Agriculture Statistics Service, 2014a).
Emerging Direct Marketing Farms

There is an emerging group of farms selling food locally through direct marketing channels (Cocciarelli, Suput, & Boshara, 2010; Low & Vogel, 2011; Martinez et al., 2010; O’Hara, 2011). Direct market channels include direct-to-consumer (farmers’ markets, roadside stands, on-farm stores and community-supported agriculture (CSAs)), and direct-to-institution or intermediate outlet (regional distributors, grocery stores, restaurants, and institutions) (Low & Vogel, 2011; Martinez et al., 2010; O’Hara, 2011). Studies have shown increases in local food markets and sales (Low & Vogel, 2011; Martinez et al., 2010), and the number of direct marketing farms (Low & Vogel, 2011).

Direct marketing farms have been characterized by researchers as small farms commonly using sustainable practices to produce a diversity of product sold directly to various markets (Cocciarelli et al., 2010; Low & Vogel, 2011; Martinez et al., 2010; O’Hara, 2011). Cocciarelli et al. (2010) found direct marketing farms to have three defining characteristics: organic and sustainable practices, diversified products sold to differentiated markets, and lack of production of mono-crop commodities. Martinez et al. (2010) noted that farms producing local food are more likely to perform marketing functions including storing, packing, and vending. Researchers have found small farms compose the largest percent of vendors in local markets (Low & Vogel, 2011; Martinez et al, 2010; O’Hara, 2011). According to the 2007 agricultural census 96% of farms participating in farm direct marketing had annual sales of less than $250,000 (O’Hara, 2011). Lev and Gwin (2010) noted that while farms with gross sales under $250,000 made up the majority of farms participating in local direct sales, farms with higher sales
are also participating. The researchers reported that farms with gross sales over $250,000 generated 43% of the national farm direct sales revenue.

Direct marketing farms are an important component of local food systems. The USDA National Commission on Small Farms (1998) discussed the central role small farms could play in a local and regional food economy through direct marketing channels. The success of farmers’ markets has been linked to vendor participation, which brings in customers and revenue for the market (King et al., 2010; Stephenson, 2008). Additionally, studies found that consumers associate local food with supporting small and family farmers (King et al., 2010; Ostrom, 2006).

The Local Food Movement

The growth of the local food system is about more than local food sales. It includes a number of integrated elements such as sustainable production, consumer opposition to industrial food systems, supporting small farms, and local economies (Allen, FitzSimmons, Goodman, & Warner, 2003; Martinez et al., 2010). It has been identified as a social movement (Allen et al., 2003; Feagan, 2007; Henderson, 1998; Martinez et al., 2010). This section reviews definitions of the local food movement, outlines the various campaigns incorporated into the movement, and the economic, environmental, and health impacts of the movement. The section ends with a discussion of the growth of the local food movement. Local food movement refers to the larger concept and campaign, while local food system refers to the infrastructure, businesses, policies, relationships, and transactions that compose a network within which local food is produced, sold, and consumed in a given area.
“Local food” does not have a universal definition. While the term is associated strongly with geography, the concept incorporates various ideals (Martinez et al., 2010). Local food is associated with sustainable production, fair labor practices, animal welfare, small farms, and local economies (Martinez et al., 2010). Researchers have described the local food movement as emerging from and incorporating a range of other movements including the *Slow Food Movement*, the environmental movement, and community food security (Feagan, 2007; Martinez et al., 2010). Research has defined this variegated movement as an alternative to the conventional food system (Feagan, 2007).

Watts, Ilbery, and Maye (2005) argued that definitions of local food should be rated on their *alternativeness*, or “their ability to resist incorporation into the conventional system” (p. 27). The authors theorized that weaker campaigns within the movement are defined by attributes of the food products, while stronger campaigns are based on the networks through which the food products circulate. For example, the organic movement was based around a wide range of social, economic, and environmental ideals. Researchers have described how these ideals were lost as the campaign was organized into the organic certification process, which allowed it to be incorporated in the conventional food system (Allen et al., 2003; Watts et al., 2005).

Figure 2.1 illustrates Watts et al.’s (2005) discussion of the alternativeness of local food definitions with various definitions used in Oregon. On the left side of the scale of alternativeness are weak definitions, which purely look at distance—an attribute of the food product—and have already been incorporated into the conventional food
system. For instance, Wal-Mart, the world’s largest food retailer, pledged to carry local products defined as those produced within the state which they are sold (Clifford, 2010). On the right side of the scale are strong definitions, which focus on the connections between farms and consumers.

1. Local food is defined as that produced within a one hundred mile radius of where it is consumed (Smith & MacKinnon, 2007)
2. New Seasons Market’s, a Portland area grocer, Home Grown campaign defines local food as that which is produced in Oregon, Washington, and Northern California (New Seasons Market, 2014)
3. The Cooperative shall provide high quality, healthy and affordable food and products. The Cooperative shall obtain such products primarily from local, regional, organic and socially responsible sources. The Cooperative shall function as a neighborhood and community resource, informing and involving the members of the diverse North/Northeast Portland community. (Alberta Cooperative Grocery, 2013)
4. **Nourishment**: food is the heart and soul of our lives. Access to fresh nutritious food is a foundation for health and human dignity.
   **Sustainability**: our markets and operations model social, economic and ecological sustainability.
   **Relationships**: positive personal connections and cooperation underlie our contributions to the community.
   **Excellence**: by combining innovation and industriousness we achieve our best while making farmer’s markets fun, functional and beautiful.
   **Organizational Integrity**: we maintain financial strength and professional fulfillment in a lively team environment.
   **Authenticity & Transparency**: we are accountable to our shoppers by requiring our vendors to produce and source what they sell with integrity. (Portland Farmers Market, n.d.)

Figure 2.1. Examples of weak and strong campaigns within Oregon’s local food systems organized along Watts et al.’s scale of alternativeness.
The local food movement seeks to build a *moral* or *relationship economy* by connecting farmers and consumers—most frequently this is accomplished through direct marketing (Hinrichs, 2000; Kloppenburg, Hendrickson, & Stevenson, 1996). Kloppenburg et al. (1996) described the current system as, “a world in which we are ever more distant from each other and from the land, and so we are increasingly less responsible to each other and to the land” (p. 36). *Embeddedness*, “social ties, assumed to modify and enhance human economic interactions” (Hinrichs, 2000, p. 296), reverses this loss of responsibility leading to the rise of a moral economy (Hinrichs, 2000, Kloppenburg et al., 1996). In a moral economy, consumers and producers, urban and rural, are connected through shared goals and ideals (Feenstra, 1997; Kloppenburg et al., 1996). Connecting farms and consumers through direct marketing facilitates the transfer of knowledge about the product, farm, and agricultural practices (Martinez et al., 2010). Recognizing the difficulty in defining local food and the importance of the connection, some researchers have used direct marketing as a proxy for local food in their research (Martinez et al., 2010).

*The Impact of Local Food*

**Economic impacts.** The local food system and small-scale agriculture are key contributors to robust rural communities. Hightower (1973) noted that the promotion of large agribusiness resulted in a loss of farm jobs and small farms leading to the decline of rural America. The Goldschmidt thesis linked farm scale with economic and community well-being in the pivotal study comparing Arvin and Dinuba, California (Goldschmidt, 1978). Studies using input-output models found local food purchasing at farmers’
markets led to economic development via *import substitution*, the purchasing of local food instead of food imported from other regions (Martinez et al., 2010; O’Hara, 2011; Swenson, 2009). Input-output models have also shown a multiplier effect, based on the purchasing patterns of small farms (Martinez et al., 2010). Input-output studies determined that local food systems increase employment, gross output, and personal income in each community surveyed, although the level of impact varies (O’Hara, 2011).

Further research has established that local food systems can generate economic activity beyond those seen within agricultural businesses. Farmers’ markets and agritourism draw consumers into city centers and rural communities (Lev & Stephenson, 2001; Brown, Goetz, Ahearn, & Liang, 2013). Lev and Stephenson (2001) showed that farmers’ market attendees planned additional spending within the community surrounding the farmers’ market. Farm businesses can further stimulate economic development by using their entrepreneurial skills to operate non-farm businesses (Vogel, 2013). From 1996 to 2010, Vogel (2013) found that 18% of farm households reported operating a non-farm business, 80% of which were small farm households. Vogel estimated that these operations contributed $55 billion to the local communities’ gross county product in 2007. Operation of additional non-farm business and spillover spending in communities surrounding a farmers’ market are just a few of the added entrepreneurial activities generated by local food systems.

In Oregon, innovative non-farm businesses related to local food systems are emerging. *The Portland Meat Collective* offers butchering classes to teach consumers the butchering skills needed when purchasing half or whole animals from local farms.
Get Dirty Farm Tours provides consumers with the opportunity to meet the farmers who grow their food and learn about local agriculture through farm tours (Get Dirty Farm Tours, 2014). Pacific Northwest Kale Chips, a B-certified corporation, produces value added products using kale from local farms (Pacific Kale Chips Co., 2013). A young team of entrepreneurs operates each of these businesses under a mission statement that dedicates the business to supporting the local food movement.

**Health impacts.** The local food movement is linked to health benefits through the higher nutrient content of fresh food and improved access to healthier food (Jolly, 1993; Lea, 2005; Martinez et al., 2010). Studies looking at CSA consumers have shown that their diets consist of “more, fresher, and a greater variety of vegetables” (Brown & Miller, 2008 p. 1298). Farm-to-school programs throughout the nation have seen children increase their nutrition awareness and willingness to try new fruits and vegetables (Joshi & Azuma, 2009). Oregon’s Benton County’s That’s My Farmer: Fruit and Vegetable Prescription Program has sought to treat diet related health conditions through a combination of classes and prescriptions for produce redeemable at local farmers’ markets (Ten Rivers Foodweb, 2014).

**Environmental impacts.** It is inconclusive whether fossil fuel usage in local food systems for transportation is lower compared to conventional food systems due to the complexity and diversity within these systems (Martinez et al., 2010). However, the transportation of food is only one of the many energy uses in agriculture. Researchers have found that energy savings in the local food movement likely result from changes in
consumers’ diets away from processed foods and towards fresh produce produced on less mechanized farms (Canning, Charles, Huang, Polenske, & Waters, 2010; O’Hara, 2011; Weber & Matthews, 2008).

Additionally, the studies described here have found that local food systems preserve agricultural landscapes, improve biodiversity, and encourage sustainable agricultural practices. Agricultural landscapes maintain open space and have the potential to improve ecosystem services (Hilchey, Gillespie, Kay, & Smith, 2008; O’Hara, 2011). Farms selling in the local food system tend to support greater biodiversity and genetic diversity of crops (Goland & Bauer, 2004), which are important environmental and food security issues (Brown & Miller, 2008). Sorte (2009) noted that development of a local food system in Eastern Oregon would improve the biodiversity of the wheat-producing region, improving habitat along with the local economy. The local food movement supports and encourages sustainable agricultural practices by creating a platform for consumers to demand sustainable practices and for farmers to sell their environmentally conscious product at a price that reflects the added costs (O’Hara, 2011).

The Growth of the Local Food Movement

Research has found consumer support for local food in both the grocery and restaurant industries. Seventy percent of consumers are willing to pay 5% more for local products (Rushing & Ruehle, 2013). Willingness to pay a premium spans income groups; 57% of low-income families reported they are willing to pay more for local products (Rushing & Ruehle, 2013). The National Restaurant Association reported that 7 out of 10 consumers were more likely to visit a restaurant offering local food (Tropp, 2013). Food
retailers and food service distributors have been responding to the increasing demand for local food. For example, in 2010 Wal-Mart, the world’s largest grocery retailer, pledged to increase their local produce sales to 9% of their total produce sales, effectively doubling their local produce sales in the United States (Clifford, 2010).

Direct marketing has increased throughout the United States. The Agricultural Marketing Service (AMS) claimed there were over 8,000 farmers’ markets in the United States in 2013, a four fold increase from 1994 (Tropp, 2013). CSA marketing began in the US in the 1980’s with two farms and by 2007 12,549 farms reported using the CSA model or another subscription sales format (Tropp, 2013). In 2008, the AMS reported that sales through all direct marketing channels were worth $4.8 billion, with direct-to-institution composing 50% to 66% of the value of local food sales (Low and Vogel, 2011).

Researchers have said that self-reporting, exclusion of value-added products, exclusion of direct-to-institution or intermediate marketing, and limiting the survey to farm businesses likely result in underestimating the total value of the direct marketing sector (Low & Vogel, 2011; Timmons & Wang, 2010). Lev and Gwin (2010) noted that direct marketing statistics might also overestimate the size of the local food movement because direct marketing is not inherently local. For instance, they explained that farm sales via websites that ship products throughout the nation are direct sales that are not necessarily local (Lev & Gwin, 2010). However, researchers agree that most likely the underestimation outweighs the overestimation (Lev & Gwin, 2010; Low & Vogel, 2011; Timmons & Wang, 2010).
Local food sales are concentrated in the far west and northeast regions of the United States (Tropp, 2013). California, Oregon, and Washington accounted for 23.8% of all local food sales in the nation (Low and Vogel, 2011). According to the 2012 agriculture census, Oregon ranked sixth in the nation with 6,247 direct marketing farms generating $44 million in direct marketing sales (Oregon Department of Agriculture, 2014).

In fact the study area for this research is a good example of the growth of local food systems. The Willamette Valley is an ideal location for a vibrant local food system because of the combination of prime farmland in close proximity to urban centers, which researchers have found to have higher local food sales (Low & Vogel, 2011). The area is among the most productive agricultural regions in Oregon, accounting for 42% of gross agricultural sales in the state (Oregon Department of Agriculture, 2013). Oregon’s three largest cities, Portland, Eugene, and Salem, are in the Willamette Valley. These metro areas together are home to 78% of Oregon’s population (Population Report Center, 2014).

Direct marketing is prevalent and growing throughout Oregon, but concentrated in the Willamette Valley. For instance, using farmers’ markets as an indicator shows the growth and location of direct sales. In 1998 there were 36 farmers’ markets in Oregon (Stephenson, 2008), in 2014 there were 113 farmers’ markets operating as members of the Oregon Farmers Market Association (Oregon Farmers Market Association, 2014). Of these markets 20% were in Portland and 58% were in the Willamette Valley (Oregon Farmers Market Association, 2014).
The Willamette Valley’s local food systems have gained national media attention. The New York Times has often reported on the farm-to-table industry in Portland, Oregon’s largest city, which one author termed Portland’s *new provincialism* (Yardley, 2010). Articles have reported on Oregon’s young beginning farmers (Raftery, 2011), creative farm business models (Johnson, 2012) and the educational opportunities offered by the Oregon State University Extension Small Farms Program (Korkki, 2012). Oregon has become known for its local food culture (Raftery, 2011).

**Small Business Success**

Small farm businesses are similar to other small businesses in that the entrepreneur plays a key role in the formation and management of the business. Traditionally small businesses have been evaluated using economic indicators of success. This section looks at a growing body of literature on small business success. The section opens with a review of arguments that place the entrepreneur at the center of small business success. Next the review presents research on the criteria and the relative importance of the criteria that small business entrepreneurs’ utilize to evaluate their success.

*Entrepreneurs and Their Businesses*

Researchers noted that traditionally academic literature on small business success promotes classic economic measures of success (Jarvis, Curran, Kitching, & Lightfoot, 2000; Reijonen, 2008; Walker & Brown, 2004). These classic measures that evaluate financial performance and growth of the firm include: number of employees (van Pragg, 1996), profit maximization, sales or turnover, and return on investment (Walker & Brown,
Recent researchers have noted that these measures of success provide insufficient evaluations of small businesses, given that many small business entrepreneurs use a variety of financial and non-financial measures to evaluate their success (Gorgievski, Ascalon, & Stephan, 2011; Reijonen, 2008; Toledo-Lopez, Diaz-Pichardo, Jimenez-Castaneda, & Sancez-Medina, 2012). Jarvis et al. (2000) argues that limiting a business to economic measures ignores the complex models entrepreneurs create for their businesses. To move beyond these narrow definitions of success focused solely on the business dimension, Gorgievski et al. (2011) recommend researchers to take an *ecological approach*, intertwining the multiple dimensions of the small firm including the individual, business, and society.

Researchers have stated that entrepreneurs need to align their personal and business goals to achieve success. Reijonen & Komppula (2007) noted that a firm is only successful if the entrepreneur feels successful. Gorgievski et al. (2011) stated that a firm is more likely to close if the owner is not meeting their personal goals, even if they are profitable or if outside measures define the business as successful.

Personal goals have inherent importance on the health, well-being, and financial success of business owners. Living in accordance to ones’ values predicts long-term personal well-being and satisfaction, whereas a misfit between a person’s values and choices leads to internal conflict and distress in the long term. In turn, distress has been found to impair business owners’ financial performance. (Gorgievski et al., 2011, p. 208)

Katz and Liu (1990) claimed that for an individual to be successful is “to integrate a satisfying personal life with fulfilling professional pursuits” (p. 186). The researchers theorized that this combination leads to personal integrity, or a sense of harmony that is accomplished when ones’ values, ambitions, and actions work in unison (Katz and Liu,
Similarly, Covey (1989) promoted *character* as the foundation of success, stating that if action is not motivated by integrity, success will not be achieved. Reijonen (2008) argued that success is not the achievement of goals, but the satisfaction of achieving goals and the resulting feeling of success.

As stated previously, the entrepreneur’s personal satisfaction is an important component of firm success therefore the criteria for small business success should be rooted in the entrepreneur’s values and motivations. Small business entrepreneurs usually work fulltime in their businesses and are the primary decision makers, therefore their decisions and actions directly affect the business’ success (Walker & Brown, 2004; Reijonen, 2008). Their decision and actions will depend on their motivations and goals, as will their concept of success (Reijonen, 2008). The classic economic measures of success assume the entrepreneur’s primary motivation is to gain wealth and that these businesses must grow (Reijonen, 2008; Walker & Brown, 2004). However, recent studies on small firm success show that entrepreneurs have a variety of motivations for starting their businesses and, therefore, a variety of measures of success (Gorgievski et al., 2011; Jarvis et al., 2000; Reijonen, 2008; Toledo-Lopez et al., 2012; Walker & Brown, 2004).

**Criteria for Small Business Success**

The studies reviewed here sought to define and rank success criteria for small business owners from various industries and countries. Success criteria were defined through interviews and questionnaires administered to small business entrepreneurs and/or literature reviews. Four studies researched small business owners in developed countries, while Toledo-Lopez et al. (2012) studied subsistence producers in Mexico.
Entrepreneurs rely on a complex mixture of criteria to monitor their success (Jarvis et al., 2000). Research findings on small business success criteria have included financial and non-financial (Reijonen, 2008; Toledo-Lopez et al., 2012; Walker & Brown, 2004), qualitative and quantitative (Jarvis et al., 2000) and business-oriented and person-oriented criteria (Gorgievski et al., 2011). Table 2.2 summarizes these findings in a matrix of financial/non-financial and business-oriented/person-oriented. Walker and Brown (2004) concluded that beyond these dual categories, small business owners’ success criteria include four distinct factors: lifestyle factor, diminished financial factor, strong financial factor, and social responsibility factor.

Table 2.2

Small Business Literature Success Criteria Findings by Category

<table>
<thead>
<tr>
<th>Financial</th>
<th>Business-oriented</th>
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</thead>
<tbody>
<tr>
<td>Person-oriented</td>
<td></td>
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<tr>
<td>Ambition/Ego</td>
<td>Cash flow</td>
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<tr>
<td>Making a living</td>
<td>Costs</td>
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<tr>
<td>Personal and family financial objectives</td>
<td>Firm survival/continuity</td>
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<td></td>
<td>Growth</td>
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<td></td>
<td>Profit</td>
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<td></td>
<td>Sales</td>
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<td></td>
<td>“Busyness”</td>
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<td></td>
<td>Customer satisfaction</td>
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<td></td>
<td>Innovation</td>
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<tr>
<td></td>
<td>Public recognition</td>
</tr>
<tr>
<td></td>
<td>Quality of product</td>
</tr>
<tr>
<td>Non-financial</td>
<td>Satisfied employees</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>Utility/usefulness</td>
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<tr>
<td>Creating jobs</td>
<td></td>
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<tr>
<td>Freedom/flexible lifestyle</td>
<td></td>
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<tr>
<td>Job satisfaction</td>
<td></td>
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<tr>
<td>Personal satisfaction</td>
<td></td>
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<tr>
<td>Pride</td>
<td></td>
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<tr>
<td>Quality of life</td>
<td></td>
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<tr>
<td>Responsibility to the community</td>
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<tr>
<td>Social-responsibility</td>
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<tr>
<td>Work-life balance</td>
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</table>

These findings on success criteria overlapped significantly with one notable exception; Gorgievski et al. (2011) and Walker and Brown’s omission of certain business-oriented, non-financial criteria, termed by Gorgievski et al. as business strategy performance criteria. Examples of these criteria are: customer relations, product quality, business practices, leadership, and organizational learning (Gorgievski et al., 2011). Gorgievski et al. addressed their omission of business strategy performance criteria, stating that these criteria are too narrow to be included as business success criteria. They stated that business strategy performance criteria are means to achieve success and not criteria on their own. Other studies included business strategy performance criteria in their findings; for example studies looking at craft and manufacturing industries showed that product quality and customer satisfaction were important components of success criteria within these industries (Jarvis et al., 2000; Reijonen & Komppula, 2007; Toledo-Lopez et al., 2012).

Relative Importance of Success Criteria

Three studies looked at the relative importance of the success criteria to small businesses via interviews and questionnaires (Gorgievski et al., 2011; Reijonen, 2008; Walker & Brown, 2004). Table 2.3 outlines these findings. Researchers found that non-financial measures of success were more important to small business entrepreneurs than financial measures of success (Gorgievski et al., 2011; Reijonen, 2008; Walker & Brown, 2004). However, researchers noted that the use of non-financial indicators did not decrease the importance of profits or substitute for financial success (Jarvis et al., 2000; Walker & Brown, 2004). Each study reviewed indicated that entrepreneurs utilized
financial criteria in determining their success, but the level of financial success and the terms in which it is expressed differ from traditional measures of firm success. Instead of business-oriented concepts of growth or profit, entrepreneurs expressed financial success criteria in terms of personal or family financial objectives (Jarvis et al., 2000; Reijonen, 2008; Toledo-Lopez et al., 2012). Many small businesses did not seek profit maximization and instead they strive for business survival, affording to send their kids to school, and making a living (Jarvis et al., 2000; Reijonen, 2008; Toledo-Lopez et al., 2012). Entrepreneurs utilized financial criteria as a means to achieve other goals rather than an end in itself (Walker & Brown, 2004).

Table 2.3

Relative Importance of Success Criteria

<table>
<thead>
<tr>
<th>Author</th>
<th>Success Criteria</th>
<th>More Important</th>
<th>Less Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gorgievski et al., 2011</td>
<td>• Personal Satisfaction</td>
<td>• Customer satisfaction</td>
<td>• Personal satisfaction</td>
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<td></td>
<td>• Profitability</td>
<td>• Job satisfaction</td>
<td>• Pride</td>
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<td>• Satisfied stakeholders</td>
<td>• Making a living</td>
<td>• Flexible lifestyle</td>
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<td>• Work-life balance</td>
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<td>• Innovation</td>
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<td>• Firm survival</td>
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<td></td>
<td>• Utility/usefulness</td>
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<td></td>
<td>• Contribution to society</td>
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<tr>
<td></td>
<td>• Public recognition</td>
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<tr>
<td></td>
<td>• Growth</td>
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</tr>
</tbody>
</table>

| Reijonen, 2008 | Respondents ranked a list of ten success criteria | Respondents were presented 50 potential success criteria and used a Likert scale to rank their importance. | Respondents rated criteria on a Likert scale and analyzed with paired sample t-test |
|----------------|--------------------------------------------------|---------------------------------------------------------------------------------|
| Walker and Brown, 2004 | | | |

<table>
<thead>
<tr>
<th>Study Method</th>
<th>Various industries, Netherlands</th>
<th>Rural tourism, Finland</th>
<th>Property and Business Service Sector, United Kingdom</th>
</tr>
</thead>
</table>
Non-financial and financial success criteria can conflict with one another (Reijonen & Komppula, 2007; Walker & Brown, 2004). Researcher noted that non-financial criteria can direct entrepreneurs away from pursuing growth (Gorgievski et al., 2011; Reijonen, 2008). For instance, business growth may be seen as undesirable if hiring employees does not align with other success criteria (Reijonen, 2008).

**Small Farm Success**

Studies looking at the success of small farms have focused on defining the characteristics of successful farms, not the criteria for success (Curtis, Gumirakiza, & Ward, 2013; Cuykendall, LaDue, & Smith, 2002; Duffy & Nanhou, 2002; Muhammad, Tegegne, & Ekanem, 2004; Perry & Johnson, 1999; Yeboah, Owens, & Bynum, 2011). Studies have either compared survey responses of successful and less successful farms or interviewed successful farms to find defining characteristics. Table 2.4 summarizes the characteristics of successful small farms found across the five studies reviewed here.
Table 2.4

**Literature Summary of Characteristics of Successful Small Farms**

<table>
<thead>
<tr>
<th>Category</th>
<th>Characteristic of Successful Small Farm</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finances</td>
<td>Managing debt, reducing costs</td>
<td>Cuykendall et al., 2002; Duffy &amp; Nanhou, 2002; Yeboah et al., 2011</td>
</tr>
<tr>
<td>Marketing</td>
<td>Diversity and type of markets, time spent marketing</td>
<td>Curtis et al., 2013; Duffy &amp; Nanhou, 2002; Muhammad et al., 2004</td>
</tr>
<tr>
<td>Management</td>
<td>Attention to detail, timing</td>
<td>Cuykendall et al., 2002; Muhammad et al., 2004</td>
</tr>
<tr>
<td></td>
<td>Record keeping, business plan, defining goals</td>
<td>Curtis et al., 2013; Muhammad et al., 2004; Yeboah et al., 2011</td>
</tr>
<tr>
<td></td>
<td>Access to and use of information/education, reliability of</td>
<td>Cuykendall et al., 2002; Duffy &amp; Nanhou, 2002; Muhammad et al., 2004</td>
</tr>
<tr>
<td></td>
<td>information</td>
<td>Yeboah et al., 2011</td>
</tr>
<tr>
<td></td>
<td>Love of farming, optimism</td>
<td>Cuykendall et al., 2002; Yeboah et al., 2011</td>
</tr>
<tr>
<td>Production</td>
<td>Production level, yields</td>
<td>Cuykendall et al., 2002; Duffy &amp; Nanhou, 2002</td>
</tr>
<tr>
<td></td>
<td>Fewer products</td>
<td>Curtis et al., 2013</td>
</tr>
<tr>
<td></td>
<td>Diversification</td>
<td>Yeboah et al., 2011</td>
</tr>
</tbody>
</table>

In order to determine successful small farms, the researchers utilized farm self-assessment (Curtis et al., 2013; Muhammad et al., 2004), extension agents’ knowledge of successful farms (Cuykendall et al., 2002; Yeboah et al., 2011), financial records to determine profitability and debt (Curtis et al., 2013; Duffy & Nanhou, 2002) and data from the Agricultural Resource Marketing Service (ARMS) on profitability (Perry & Johnson, 1999). Many of these studies acknowledged that success for small farms can include factors beyond profit maximization and they used methods such as self-assessment and the knowledge of extension agents to determine success (Cuykendall et al., 2002; Duffy & Nanhou, 2002; Perry & Johnson, 1999; Yeboah et al., 2011). Curtis et al. (2013) and Duffy and Nanhou (2002) found that many times profit maximization and farmers perceived or self-assessed success do not occur together.
Previous studies’ on small farm success did not incorporate the small business literature. The small business literature described previously demonstrated the importance of the household and entrepreneur in firm success. Walker and Brown (2004) found that businesses operating out of the home place greater importance on non-financial success criteria. Given that 77% of farmers in the United States live on the farm (USDA National Agriculture Statistics Service, 2014a), the role of the farmer and household in small farm success is an area in need of examination.

The aforementioned studies on small farm success relied on the USDA’s definition of small farms. By using an economic definition of small farm, these studies inherently limited the financial success of the study population. By using this definition the studies may have excluded small farms utilizing strategies to increase gross sales, such as specialty crops, direct marketing, and season extension. Such innovations are at the heart of small farm success.

**Studies Related to Small Farmers’ Challenges**

Farmers experience challenges related to all aspects of the food system (Stephenson, Gwin, Powell, & Garrett, 2012). There are many studies related to the challenges small farmers face but few studies focus on small farms. Related studies have looked at challenges to local or sustainable food systems (Martínez et al., 2010; Peterson, Selfa, & Janke, 2010), urban agriculture (Castillo et al., 2013; Lovell, 2010), organic agriculture (Stephenson et al., 2012), direct marketing (Griffin & Frongillo, 2003; Hinrichs, 2000; Starr et al., 2003; Tropp & Barham, 2008), and beginning and young farmers (Ahearn & Newton, 2009; Freedgood & Dempsey, 2014; Gillespie & Johnson,
Other studies investigated specific challenges that have been identified as barriers for farm businesses, such as access to land (Ruhf, 2013) and financing (Cocciarelli et al., 2010). These studies provide insight on the challenges small farmers face but they do not provide a comprehensive analysis.

Some researchers have acknowledged that studies typically have not asked small farmers to describe the challenges they experience in operating their business (Castillo et al., 2013; Peterson et al., 2010). Study methods have included literature reviews (Freedgood & Dempsey, 2014; Lovell, 2010; Martinez et al., 2010; Ruhf, 2013), reports from meetings of stakeholders (Cocciarelli et al., 2010; Tropp & Barham, 2008) analysis of census data (Ahearn & Newton, 2009; Goodwin & Mishra, 2004), and quantitative surveys (Peterson et al., 2010; Shute, 2011; Stephenson et al., 2012). A few studies have employed participatory research methods including: a “participatory farmer-led case study” (Hendrickson, 2005, p. 1), participant observation (Hinrichs, 2000), and qualitative interviews and focus groups with stakeholders (Castillo et al., 2013; Freedgood & Dempsey, 2010; Gillespie & Johnson, 2010; Griffin & Frongillo, 2003; Starr et al., 2003; Stephenson et al., 2012). However, these studies have not focused specifically on the challenges facing small farmers. Hendrickson (2005) is a notable exception; the study used participatory research to develop a case study of small farms to improve decision-making on the farm and inform a discussion on improving the livelihood of farmers.
Challenges Facing Small Farmers

**Access to capital.** Small farmers struggle to access capital for start-up and expansion costs (Cocciarelli et al., 2010; Freedgood & Dempsey, 2014; Shute, 2011). Many farms begin with a limited initial investment causing them to lack efficiency and miss potential market opportunities (Cocciarelli et al., 2010). Young farmers in particular struggle with access to capital since many young people tend to have limited investment income, cash flow, and credit history (Cocciarelli et al., 2010; Shute, 2011).

Cocciarelli et al. (2010) stated that farmers often lack the knowledge and confidence to represent their business to lenders. Their research showed that some farmers refrain from applying for credit because they doubt lenders will view them as a legitimate business (Cocciarelli et al., 2010). Farmers need access to professional development to assist them in developing business plans and overcoming financing hurdles (Castillo et al., 2013; Cocciarelli et al., 2010; Freedgood & Dempsey, 2014; Shute, 2011; Tropp & Barham, 2008). Additionally, farmers need assistance in conveying the potential viability of their local food businesses and the built-in risk management of sustainable production practices (Cocciarelli et al., 2010).

Some studies have shown that lenders need education to better understand and evaluate small farms. Cocciarelli et al. (2010) found that few institutions offered agriculture loans and many did not have staff versed in agriculture. The authors noted there is a general lack of willingness to lend to businesses outside the norm, especially since lending standards were tightened following the 2007-2009 recession. Shute (2011) reported that some farmers state that Farm Service Agency (FSA) loan officers were not
prepared to evaluate or lend to diversified operations. Additionally, FSA loans have been criticized as not accommodating small farmers needs; Shute commented that FSA did not tend to issue smaller operating loans and the maximum direct farm ownership loan was $300,000—well under the amount needed to purchase a farm in many regions (Shute, 2011).

**Costs and investments.** Farming is a capital-intensive business with high entry, production, and maintenance costs. Research found that investments including land, equipment, infrastructure, nursery stock, and livestock pose an obstacle for small farmers (Hendrickson, 2005). Entry costs are a barrier for many beginning farmers, leading many to pursue vegetable production because it requires less initial investment (Shute, 2011). Production costs, including inputs and labor, can be a major challenge for farmers (Griffin & Frongillo, 2003; Hendrickson, 2005; Stephenson et al., 2012). High production costs are more of a challenge at smaller scale (Hendrickson, 2005; Stephenson et al., 2012). Maintenance and reinvestment costs have been found to create financial instability (Hendrickson, 2005).

**Financial profitability and stability.** It is a challenge for farms to attain and maintain consistent profitability (Shute, 2011; Tropp & Barham, 2008; Zurayk, 2010). Zurayk (2010) commented on the irony that while local food systems have expanded some small farms selling in local food systems are going out of business.

Hendrickson (2005) found that small farms experience a huge fluctuation in the percent of gross sales retained in profits—from 80% to 15%. Variation resulted from: investment and reinvestment in equipment and infrastructure, purchasing acreage, labor
costs, market fluctuations, crop failures, bumper crops and weather (Hendrickson, 2005). The farmer’s context—including off-farm income streams, overhead costs, and debt load—affect a farmer’s ability to manage inconsistent farm profits (Hendrickson, 2005; Hinrichs, 2000)

**Production, scale, and labor.** As noted above, financial stability is related to production challenges. Weather, costs of inputs and labor, and fluctuating yields are all constant production challenges farmers face (Griffin & Frongillo, 2003; Hendrickson, 2005). Stephenson et al. (2012) found that weed management was a major challenge faced by organic farmers in Oregon.

Finding the appropriate scale for a given farm is a prominent issue for small operations (Hendrickson, 2005). The author noted that while there is no one ideal farm size each farm must find a functional scale and level of mechanization given their unique set of opportunities and constraints. Farmers struggle to find the scale of production and marketing that is profitable and yet does not require the “hassles of extensive paid labor” (Hendrickson, 2005, p. 19). Likewise, farmers struggle to develop a farming system and scale that balances hand labor with scale-appropriate equipment (Hendrickson, 2005).

Small farmers not only have a difficult time affording labor, but they also struggle to find and retain a skilled workforce (Griffin & Frongillo, 2003; Hendrickson, 2005; Stephenson et al., 2012). In Oregon, zoning laws restrict the development of employee housing, minimizing farms ability to attract and retain workers (Stephenson et al., 2012). Hendrickson (2005) found that maintaining a skilled work force was key to farmers’ quality of life.
Marketing and competition. The seasonal nature and limited capacity for production restricts market access for small farms. Farm-to-institution, wholesale, and the restaurant industry are not accustomed to these added logistics (Cocciarelli et al., 2010; Martinez et al., 2010; Peterson et al., 2010; Stephenson et al., 2012). Additionally, researchers have found a lack of processing and distribution infrastructure to facilitate small farms access to these markets (Cocciarelli et al., 2010; Martinez et al., 2010; Peterson et al., 2010).

Direct marketing is a logistically complex and costly form of marketing involving larger numbers of sales of less dollar value. Direct marketing requires a unique skill set, high labor input, and greater transportation costs (Martinez et al., 2010; Peterson et al., 2010; Starr et al., 2003). Producers are expected to bear the cost of these added logistics (Peterson et al., 2010). Profits from farmers’ markets are inconsistent, causing a farmer to incur the expense of attending while potentially losing profits and perishable products (Martinez et al., 2010; Peterson et al., 2010).

Competition is a growing concern to farmers as the popularity of local food rises. The increasing numbers of farms competing in local markets is a concern in Oregon (Stephenson et al., 2012). Researchers noted farmers’ concerns with competition at the farmers’ markets include: larger scale farms that are both able to charge less and attract more customers with greater volume and variety, multiple farms selling similar products, and farms selling at unrealistically low prices (Cocciarelli et al., 2010; Griffin & Frongillo, 2003; Martinez et al., 2010). Farmers are also concerned about large corporate
organic farms (Stephenson et al., 2012) and supermarkets selling local produce from large scale producers (Griffin & Frongillo, 2003; Starr et al., 2002).

Social context.

A farm, even a sole or family proprietorship, is not just an individual activity that occurs in a vacuum. Rather it is embedded in the conditions of the society of which it is a part, and these days, a society in which agriculture and food production, while fundamental, are no longer central. (Gillespie & Johnson, 2010, p. 37)

Gillespie and Johnson (2010) concluded that the social context within which a farm operates has a strong effect on the challenges and opportunities facing the farm. America both romanticizes and denigrates farmers, celebrating the small farm landscape as the archetype of American countryside while disparaging manual labor (Berry, 2002; Gillespie & Johnson, 2010). Agriculture is no longer part of the majority of American’s lives, which results in a lack of knowledge and understanding (Gillespie & Johnson, 2010).

This lack of understanding is reflected in consumers’ expectations. Specifically, the literature pointed to consumers’ lack of understanding of seasonality (Griffin & Frongillo, 2003), expectations regarding product quality (Starr et al., 2003), demand for low prices (Gillespie & Johnson, 2010), and reliance on convenience (Griffin & Frongillo, 2003; Martinez et al., 2010). These expectations have been shaped by the industrial food system in which global markets lack seasonality and rigid quality and appearance criteria result in homogenous stacks of produce (Griffin & Frongillo, 2002; Starr et al., 2003).

Regulation is another element of the social context that presents challenges for small farmers. Farmers point to lacking clarity and uniformity of policies (Castillo et al.,
2013; Martinez at al., 2010), while other studies show that regulations are not created for the diversity of farms, specifically noting that policies do not fit small or direct marketing farms (Clark, Inwood, & Jackson-Smith, 2014). Food safety regulations and insurance requirements hinder farmers’ ability to enter markets (Curtis et al., 2013; Tropp & Barham, 2008). Zoning laws restrict farmers’ access to land in urban areas (Castillo et al., 2013) and ability to provide employee housing in Oregon (Stephenson et al., 2012).

**Quality of life.** Farmers struggle to secure benefits and work-life balance. In the United States health insurance and retirement are commonly accessed through the workplace (USDA ERS, 2013). As self-employed individuals, farmers are challenged to access these benefits (Hendrickson, 2005; Shute, 2011). In 2011, about 55% of farmers had access to health insurance through an off-farm job (USDA ERS, 2013). While off-farm jobs are an important risk management tool for small farmers, some research has shown that off-farm jobs can decrease farm efficiency (Goodwin & Mishra, 2004) and add to work-life balance challenges (Hendrickson, 2005).

Work-life balance is a concern for many small farms. Hendrickson (2005) stated that all farmers in the study struggled to balance personal time, their health, relationships, and child rearing with the time demands of their small farms.

**Land access.** Recent studies have shown land access to be among farmers’ top challenges (Castillo et al., 2013; Cocciarelli et al., 2010; Hendrickson, 2005; Shute, 2011). While some studies focused on land access as a challenge for beginning farmers (Freegood & Dempsey, 2014; Shute, 2011), others studies showed that land access can be a challenge at any stage in a farm business (Hendrickson, 2005; Ruhf, 2013).
Development of farmland and increased competition for the remaining farmable acreage have caused the price of land to increase, magnifying this challenge (Freegood & Dempsey, 2014; Ruhf, 2013). Farmers have stated that it is difficult to find appropriate farmland—land with quality soils, access to water, proper zoning, and suitable acreage (Castillo et al., 2013; Freegood & Dempsey, 2014; Lovell, 2010). Finally, farmers struggle with the process of negotiating a sale or lease (Freegood & Dempsey, 2014).

**Beginning Farmer Challenges**

Several studies have focused on the challenges confronting beginning farmers. In 2009, the USDA completed a study of beginning farmers’ challenges using Agricultural Marketing Service and Census of Agriculture data (Ahearn & Newton, 2009). The National Young Farmer Coalition (NYFC) surveyed beginning farmers across the nation (Shute, 2011). The survey was developed by NYFC based on their own personal experience as farmers (L. L. Shute, personal communication, September 11, 2014). American Farmland Trust recently published a study on beginning farmer challenges that combined a literature review and interviews with representatives from organizations working with beginning farmers (Freegood & Dempsey, 2014). These studies did not compare the challenges of beginning and experienced farmers; rather they started with the notion that beginning and experienced farmers face different challenges. Additionally, these studies lack qualitative analysis of the farmers’ perspective. Such analysis may illuminate under represented challenges.

These studies consistently find that access to land is a main issue for beginning farmers, along with financial challenges. Ahearn and Newton (2009) found that the main
challenges for beginning farmers are high start-up costs and insufficient land for sale or lease. Shute (2011) found that the top five challenges were: lack of capital, land access, health care, access to credit, and business planning and marketing skills. Freegood and Dempsey (2014) found that access to land was the most discussed challenge followed by securing access to credit and financing.

Summary

This literature review summarized research defining small farms, direct marketing and the local food movement. Small direct marketing farms play an important role in the local food movement. The local food movement is a variegated movement addressing many concerns surrounding food through the development of alternative food systems. Research on the impacts of the local food systems were presented, showing local food systems have the potential to positively affect communities’ economy, public health, and environment. Ensuring small farms are successful can enhance the success of this movement.

Small business literature has shown that small businesses are traditionally evaluated by economic indicators, which ignore the complex roles these businesses play in communities and the entrepreneur’s life. A growing body of small business literature describes the importance of the entrepreneur in defining small business success and points out the importance of non-financial measures of success. Non-financial measures of success, such as personal satisfaction, have been shown to be important factors in firm continuation. Studies looking at small farm success investigated the attributes of
successful small farms; they did not examine what defines a successful small farm or incorporate small business literature.

The literature described various challenges facing small farmers. Previous studies have not used qualitative methods to approach the question of what challenges face small farmers. Related studies have shown that small farmers experience financial, production, marketing, and quality of life challenges within their businesses. These farmers are also challenged by the larger social context in which they operate. Small farmers find it difficult to access capital and land to develop their businesses. Within this context farmers struggle to create successful farm businesses.
Chapter 3: The Dimensions of Small Farm Success

Abstract

This study investigates perceptions of success of small farmers operating direct marketing farm businesses in Oregon’s Willamette Valley. Small farms are important players in local food systems and ensuring their success is an important part of expanding and sustaining local food systems. But how do these small farmers define success? This qualitative study utilizes participatory methods, providing small farmers with the opportunity to express their concept of success. Findings provide a framework describing four dimensions of small farm success: social, operational, quality of life, and financial. The farmers in this study see financial success as a vital component of overall success, but acknowledge that financial success is not itself a success if achieved to the exclusion of other dimensions of success. This study developed four models for how small farmers perceive financial success: financial success as the baseline of overall success, equal dimensions of success, interdependent dimensions of success, and financial success as a gauge of overall success. Findings improve understanding of these innovative businesses, with implications for research, education, and small farm planning.

Introduction

The United States is experiencing an expansion of local food systems. Although farms of a variety of sizes participate in local food systems, small direct marketing farms are key players. Ensuring the success of these small farms is an important part of expanding and sustaining local food systems. But how do these small farmers define success? Traditionally, small farms, like other small businesses, are evaluated using economic measures of success. A growing body of small business literature describes the
importance of the entrepreneur in defining small business success and points out that non-financial measures of success are important to firm survival. This study provides a qualitative analysis of the financial and non-financial criteria small farmers operating in the local food systems of the Willamette Valley of Oregon use to evaluate their success.

*American Agriculture: Transition and Opportunity*

Statistics reveal that American agriculture is in transition. According to the 2012 Agricultural Census the number of farms in the United States decreased by 4.3% from 2007 to 2012 (USDA National Agriculture Statistics Service, 2014a). During the same time, farms with less than 1,000 acres and those with less than $500,000 in sales decreased at a greater rate than farms with greater acreage and sales (USDA National Agriculture Statistics Service, 2014b). In line with a 30-year trend, the average age of farmers in the United States, 58.3 years, continues to rise (USDA National Agriculture Statistics Service, 2014a). The aging farmer population may foreshadow attrition of farm businesses, which may lead to consolidation and loss of farmland, declining rural communities, as well as the loss of farming tradition and knowledge (Goldschmidt, 1978; Hightower, 1973; Shute, 2011).

At the same time local food systems are growing. There are a growing number of farms selling food locally through direct marketing channels (Cocciarelli et al., 2010; Low & Vogel, 2011; Martinez et al., 2010; O’Hara, 2011). The number of farmers’ markets and local food sales are increasing (Low & Vogel, 2011; Martinez et al., 2010), as are the number of farms participating in direct marketing—rising 58% between 1992 and 2007 (Low & Vogel, 2011). The growth of local food systems is about more than
local food sales. It includes a number of integrated elements such as sustainable production, fair labor practices, animal welfare, small farms, and local economies (Martinez et al., 2010). It has been identified as a social movement, creating an alternative to the conventional food system (Feagan, 2007) and a rise of moral economy (Hinrichs, 2000, Kloppenburg et al., 1996).

Researchers have found small farms compose the largest percent of vendors in local markets (Low & Vogel, 2011; Martinez et al, 2010; O’Hara, 2011). According to the 2007 agricultural census 96% of farms participating in farm direct marketing have annual sales of less than $250,000 (O’Hara, 2011). Lev and Gwin (2010) note that while farms with gross sales under $250,000 make up the majority of farms participating in local direct sales, farms with higher sales are also participating. The researchers report that farms with gross sales over $250,000 generate 43% of the national farm direct sales revenue.

Small farms participating in the local food systems play a multifaceted role within our society. Small farms are an important contributor to rural communities and economies (Goldschmidt, 1978; Hightower, 1973; Martinez et al., 2010; Vogel, 2013). Local food purchasing has been linked to economic development within communities through import substitution (Martinez et al., 2010; O’Hara, 2011; Swenson, 2009). Farmers’ markets and agritourism draw consumers into city centers and rural communities (Lev & Stephenson, 2001; Brown et al., 2013). Researchers have linked local food systems to health benefits through the higher nutrient content of fresh food and improved access to healthier food (Jolly, 1993; Lea, 2005; Martinez et al., 2010). Some
researchers note that local food systems likely result in energy savings due to changes in consumers’ diets away from processed foods and towards fresh produce produced on less mechanized farms (Canning et al., 2010; O’Hara, 2011; Weber & Matthews, 2008). Additionally, local food systems preserve agricultural landscapes (Hilchey et al., 2008; O’Hara, 2011), improve biodiversity (Brown & Miller, 2008; Goland & Bauer, 2004; Sorte, 2009), and encourage sustainable agricultural practices (O’Hara, 2011).

**Small Farm Success**

Small farms are an important element of local food systems and to a great extent, the expansion and sustainability of these systems is linked to the success of the small farms engaged in them. How, then, is small farm success defined? Like other small businesses, small farm success is typically evaluated with traditional economic indicators (Jarvis et al., 2000; Reijonen, 2008; Walker & Brown, 2004). Recent research has noted that traditional economic measures of success provide insufficient evaluations of small businesses, many of whom use a variety of financial and non-financial measures to evaluate their success (Gorgievski et al., 2011; Reijonen, 2008; Toledo-Lopez et al., 2012). To begin moving beyond these narrow definitions of success focused solely on the business dimension, Gorgievski et al. (2011) recommend researchers to take an ecological approach, intertwining the multiple layers of the small firm including the individual, business and society.

Researchers note the relevance of entrepreneurs’ personal satisfaction in firm success; recommending entrepreneurs integrate personal and business goals to be successful (Covey, 1989; Katz & Liu, 1990; Reijonen, 2008). Small business
entrepreneurs usually work fulltime in their businesses and are the primary decision makers, therefore their motivations and goals directly affect the business’ success (Reijonen, 2008; Walker & Brown, 2004). The classic economic measures of success assume the entrepreneur’s primary motivation is to gain wealth and that these businesses must grow (Reijonen, 2008; Walker & Brown, 2004). However, recent studies on small firm success show that entrepreneurs have a variety of motivations for starting their businesses and, therefore, a variety of measures of success (Gorgievski et al., 2011; Jarvis et al., 2000; Reijonen, 2008; Toledo-Lopez et al., 2012; Walker & Brown, 2004).

Entrepreneurs rely on a complex mixture of criteria to monitor their success (Jarvis et al., 2000). Research findings on small business success criteria have included financial and non-financial (Reijonen, 2008; Toledo-Lopez et al., 2012; Walker & Brown, 2004), qualitative and quantitative (Jarvis et al., 2000) and business-oriented and person-oriented criteria (Gorgievski et al., 2011). Table 3.1 summarizes these findings in a matrix of financial/non-financial and business-oriented/person-oriented. Walker and Brown (2004) concluded that beyond these dual categories, small business owners’ success criteria include four distinct factors: lifestyle factor, diminished financial factor, strong financial factor, and social responsibility factor.
Table 3.1

**Small Business Literature Success Criteria Findings by Category**

<table>
<thead>
<tr>
<th>Person-oriented</th>
<th>Business-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial</strong></td>
<td>• Cash flow</td>
</tr>
<tr>
<td>• Ambition/ Ego</td>
<td>• Costs</td>
</tr>
<tr>
<td>• Making a living</td>
<td>• Firm survival/continuity</td>
</tr>
<tr>
<td>• Personal and family financial objectives</td>
<td>• Growth</td>
</tr>
<tr>
<td></td>
<td>• Profit</td>
</tr>
<tr>
<td></td>
<td>• Sales</td>
</tr>
<tr>
<td><strong>Non-financial</strong></td>
<td>• “Busyness”</td>
</tr>
<tr>
<td>• Accomplishment</td>
<td>• Customer satisfaction</td>
</tr>
<tr>
<td>• Creating jobs</td>
<td>• Innovation</td>
</tr>
<tr>
<td>• Freedom/flexible lifestyle</td>
<td>• Public recognition</td>
</tr>
<tr>
<td>• Job satisfaction</td>
<td>• Quality of product</td>
</tr>
<tr>
<td>• Personal satisfaction</td>
<td>• Satisfied employees</td>
</tr>
<tr>
<td>• Pride</td>
<td>• Utility/usefulness</td>
</tr>
<tr>
<td>• Quality of life</td>
<td></td>
</tr>
<tr>
<td>• Responsibility to the community</td>
<td></td>
</tr>
<tr>
<td>• Social-responsibility</td>
<td></td>
</tr>
<tr>
<td>• Work-life balance</td>
<td></td>
</tr>
</tbody>
</table>


These findings on success criteria overlapped significantly with one notable exception; Gorgievski et al. (2011) and Walker and Brown’s (2004) omission of certain business-oriented, non-financial criteria, termed by Gorgievski et al. as *business strategy performance criteria*. Examples of these criteria are: customer relations, product quality, business practices, leadership, and organizational learning (Gorgievski et al., 2011).

Studies looking at craft and manufacturing industries found that these indicators are used as criteria for success (Jarvis et al., 2000; Reijonen & Komppula, 2007; Toledo-Lopez et al., 2012). Gorgievski et al. address their omission of business strategy performance criteria, stating that these criteria are too narrow to include as business success criteria. They state that business strategy performance criteria are means to achieve success and not criteria on their own.
Researchers have found that non-financial measures of success are more important to small business entrepreneurs than financial measures of success (Gorgievski et al., 2011; Reijonen, 2008; Walker & Brown, 2004). However, the use of non-financial indicators does not decrease the importance of profits or substitute for financial success (Jarvis et al., 2000; Walker & Brown, 2004). Entrepreneurs utilize financial criteria in determining their success but instead of business-oriented concepts of growth or profit, entrepreneurs express financial success criteria in terms of personal or family financial objectives (Jarivs et al., 2000; Reijonen, 2008; Toledo-Lopez et al., 2012). Many small businesses do not pursue profit maximization; instead they strive for business survival, affording to send their kids to school, and making a living (Jarvis et al., 2000; Reijonen, 2008; Toledo-Lopez et al., 2012). Entrepreneurs utilize financial criteria as a means to achieve other goals rather than an end in itself (Walker & Brown, 2004).

Previous studies looking at the success of small farms have focused on defining the characteristics of successful farms, not the criteria for success (Curtis et al., 2013; Cuykendall et al., 2002; Duffy & Nanhou, 2002; Muhammad et al., 2004; Perry & Johnson, 1999; Yeboah et al., 2011). Many of these studies acknowledge that success for small farms may include factors beyond profit maximization and they use methods such as self-assessment and the knowledge of extension agents to determine successful small farms in combination with traditional economic measures (Cuykendall et al., 2002; Duffy & Nanhou, 2002; Perry & Johnson, 1999; Yeboah et al., 2011). Curtis et al. (2013) and Duffy and Nanhou (2002) found that many times profit maximization and farmers perceived or self-assessed success do not occur together. Better understanding of what farmers’ perceive as success could explain this phenomenon.
These studies on small farm success did not incorporate the small business literature. The small business literature described previously demonstrates the importance of the household and entrepreneur in firm success. Walker and Brown (2004) found that businesses operating out of the home place greater importance on non-financial success criteria. Given that 77% of farmers in the United States live on the farm (USDA National Agriculture Statistics Service, 2014a), the role of the farmer and household in small farm success is an area in need of examination.

The aforementioned studies on small farm success rely on the USDA’s definition of small farms. The USDA defines small farms as family farms receiving gross cash farm income (GCFI)\(^2\) of less than $350,000 (Hoppe & MacDonald, 2013). By using an economic definition of small farm, these studies inherently limit the financial success of the study population. The definition could exclude small farms utilizing strategies to increase gross sales, such as specialty crops, direct marketing, and season extension. Such innovations are at the heart of small farm success.

Determining how small farmers view the success of their businesses will improve understanding of small farms and the role these businesses play in our society. Investigating small farm success could explain previous studies’ findings that small farm profitability and self-assessed success do not always coincide. A broader view of small farm success could improve small farm educational programming, assist small farmers in developing their farm businesses, and reveal weakness that are in need of attention. These

\(^2\) GCFI is gross receipts minus income not accrued by the farm business directly. Most commonly money not accrued to the farm is directed to contract holders and landlords (Hoppe & MacDonald, 2013).
improvements could enhance the success of small farms and the viability of the local food systems in which they participate. To begin this conversation, this study investigates the farmers’ perspective of their farm businesses. Specifically, what criteria do small farmers use when evaluating their businesses’ success?

Study Area

This study is specific to small direct marketing farms operating in Oregon’s Willamette Valley (Figure 3.1). The area is an ideal location for active local food systems because of the combination of prime farmland in close proximity to urban centers. The valley is among the most productive agricultural regions in Oregon, accounting for 42% of gross farm and ranch sales in the state (Oregon Department of Agriculture, 2013). Oregon’s three largest cities, Portland, Eugene, and Salem, are located in the Willamette Valley. These metro regions together are home to 78% of Oregon’s population (Population Report Center, 2014). Urban areas have higher direct marketing sales than rural areas, with 80% of direct marketing farms located either in urban counties or counties adjacent to urban counties (Low & Vogel, 2011).
The Willamette Valley has experienced an increased interest in locally produced food. For instance, using farmers’ markets as an indicator shows the growth and location of direct sales. In 1998 there were 36 farmers’ markets in Oregon (Stephenson, 2008), in 2014 there were 113 farmers’ markets operating as members of the Oregon Farmers Market Association (Oregon Farmers Market Association, 2014). Of these markets 20% are in Portland and 58% are in the Willamette Valley (Oregon Farmers Market Association, 2014).
The Willamette Valley’s local food system has gained national media attention. The New York Times often reports on the farm-to-table industry in Portland, Oregon’s largest city, which one author termed Portland’s *new provincialism* (Yardley, 2010). Articles report on Oregon’s young beginning farmers (Raftery, 2011), creative farm business models (Johnson, 2012), and the educational opportunities offered by the Oregon State University Extensions Small Farms Program—an important contributor to this study (Korkki, 2012). Oregon is known as having a culture of local food (Raftery, 2011).

**Methods**

The methods for this study were highly participatory, integrating semi-structured interviews, focus groups, participant observation, and farmer advisors—two farmers acting as key informant and advisors. These qualitative methods grounded the research in the farmers’ experience, utilizing their words and actions as qualitative data. The study participants were purposively selected to represent the types of small farms who participate in the Willamette Valley’s local food systems through direct marketing channels. The data analysis utilized grounded theory, allowing theory to develop in the process of coding and categorizing the data. These qualitative methods provided depth and allowed the data to direct the research. In this way, the study conveys the farmers’ perspective.

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3 Oregon State University Extension Small Farms Program will be referred to as the OSU Small Farms Program.
Multiple Methods

This study utilized multiple methods combining semi-structured interviews, focus groups, participant observation, and farmer advisors as illustrated in Figure 3.2. Multiple methods is an approach that combines research methods to triangulate and complement findings (Greene, Caracelli, & Graham, 1989). In this study, findings from 53 semi-structured interviews were presented in three focus groups, two composed of farmers selected from the original study participants and one with the OSU Small Farms Program faculty. The focus groups served to validate, situate, and expand interview findings, thus enhancing interpretation of the results (Bernard, 2000). Additionally, this study utilized participant observation and farmer advisors to ground and expand the findings.

Figure 3.2. Interaction of multiple methods and the role of the Oregon State University Small Farms Program
Affiliation with the OSU Small Farms Program elevated the standing of this project within the small farm community and provided important insight during the participant selection process. Figure 3.2 illustrates the role of the OSU Small Farms Program. Since its inception in 1997, the program has become widely regarded in the Oregon small farm community. The organization conducts the annual Small Farms Conference with more than 800 attendees and a wide array of educational and research projects throughout the state. My association with the OSU Small Farms Program improved my access to and the trust of study participants during interviews and focus groups. In addition, the OSU Small Farms Program faculty played a key role in the research through the participant selection process.

My experience within the Willamette Valley small farm community and my affiliation with the OSU Small Farms Program created rapport and advanced my understanding of small farms. I have been both an *active participant*, performing the same activities as the study population, and as a *moderate participant*, a researcher balancing my role inside and outside the community (Bernard, 2000; Spradley, 1980). I have actively participated within the community as a farm apprentice in 2007 and a farmers’ market vendor in 2013 and 2014. These roles—as farmer and vendor—provided an insider’s perspective of the daily activities of farm businesses, which improved my understanding of farm businesses and developed my reputation within the community. As a moderate participant I worked with farmers in a professional capacity as a member of the OSU Small Farms Program. This work included on-farm research projects, educational events, and coordinating a women farmer network.
Two farmers from the study population served as advisors and key informants for this study. Key informants are members of the study population who understand the study objectives and can speak openly to the researcher (Bernard, 2000). I had previous professional relationships with the farmers selected as advisors. Additionally, the farmer advisors are organizers within their community and therefore are accustomed to speaking for their community. They assisted in the development of the questionnaire, participated in the interviews and the focus groups, and provided valuable insights. In this way, the advisors were involved in the development, investigation, and interpretation.

Participant Selection

This study utilized purposive sampling, a form of non-probability sampling described by Bernard (2000), to select the farms included in this study. Small farms are not formally organized and thus cannot be reliably sampled by probability sampling methods. Since, this study focused on a specific set of small farms—small farm businesses participating in the local food systems in the Willamette Valley of Oregon—purposive sampling allowed the selection of study participants fitting this profile.

To select farms fitting this profile, selection criteria defined the region, farm scale, marketing method, farm products, and businesses designation of farmer participants. The study’s geographic extent was limited to the natural boundary of the Willamette Valley. The region was chosen because of its importance as an agriculture region and my prior professional experience with the Willamette Valley small farm community. The criteria limited farm products and marketing methods to select farms selling their primary farm product in the local food system. Eligible farms products included crops and livestock.
grown for human consumption and products used directly in the production of food, such as vegetable seed. Wine producers were not included since wine is not considered a food product. The criteria required farms use direct-to-consumer, direct-to-retail, or direct-to-institution marketing. Farms did not have to use direct marketing exclusively. In this way, direct marketing of food products was used as a proxy for local food, as modeled in previous research (Martinez et al., 2010). This study did not use the USDA definition of small farms to avoid limiting the economic success of the study population. Instead four OSU Small Farms Program faculty identified small farms meeting the criteria in the region. Additionally, the farmers had to self-identify as small farm to participate in the study. Finally, to ensure the farms were operating as businesses and could not be classified as *hobby farms*, they had to file taxes as a business in order to participate.

Four OSU Small Farms Program faculty identified 82 farms fitting the criteria. These farms received an introductory letter that described the study and to request an interview followed by email and telephone correspondence to schedule interviews. As interviews accumulated, purposive sampling maintained a geographically and demographically balanced pool of respondents. Following this procedure, 59 farmers were interviewed. Seven of the original 82 farms were eliminated because contact information could not be located or the farm had been dissolved. In addition, fifteen farms did not respond to multiple contacts or an appropriate time for the interview could not be found during the study period. One farmer declined to participate due to family illness. Of the 59 interviews, two farms did not consider their farms ‘small’ and four did not file taxes for the business. These farms were eliminated from the study, resulting in a final study population of 53 farms.
This study was conducted with approval of the Oregon State University Institutional Review Board to ensure the rights and welfare of the human subjects. Participation in the study was voluntary and participants gave verbal consent after reviewing a description of the study. Interview and focus group participants provided information anonymously and protocols were followed to protect their identities.

_Semi-Structured Interviews_

Fifty-three semi-structured interviews with small farmers were conducted between December 2012 and June 2013. Interviews were conducted by telephone to accommodate the broad geographic range of study participants and the study timeline. For the convenience of the farmers, two interviews were administered in-person. Interviews ranged from 30 to 80 minutes. Notes were recorded during the interviews in an attempt to capture the responses as close to verbatim as possible.

Following Bernard’s (2000) description of semi-structured interviews, a questionnaire was followed to ensure the questions were addressed equally and within the same context in each interview. Semi-structured interviews provided the flexibility to clarify responses and follow leads that arose in the research. The questionnaire is outlined in Table 3.2. The questionnaire was composed of two sections: demographics and farm characteristics, and the farmers’ interpretation of their farm’s success. The guide was tested in preliminary interviews with two farmers serving as advisors to the study. After testing, wording was clarified and demographic questions that the farmer advisors identified as important distinctions in their cohort added.
Table 3.2

**Questionnaire Content**

<table>
<thead>
<tr>
<th>Demographic and Background</th>
<th>Small Farm Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer Demographics</td>
<td>Farmer concept of success</td>
</tr>
<tr>
<td>• Age</td>
<td>• Farm success</td>
</tr>
<tr>
<td>• Gender</td>
<td>• Criteria for farm success</td>
</tr>
<tr>
<td>• Years of farming experience</td>
<td>• Importance of financial success</td>
</tr>
<tr>
<td>• Place of residence (on or off-farm)</td>
<td></td>
</tr>
</tbody>
</table>

Farm Business Characteristics

• County
• Acreage
• Farm products
• Direct marketing
• Year business began
• Land tenure (rent, own, both)
• Average annual gross sales
• Farm size

**Data Analysis**

Data were analyzed using Glaser and Strauss’s (1967) grounded theory technique. Following grounded theory methods, the qualitative data were interpreted using inductive coding, coding that allows topics to emerge from the data. Coding is a rigorous data analysis procedure that conceptualizes data by breaking them down into discrete units and organizing it into categories—or codes—named to represent the specific phenomenon (Strauss & Corbin, 1990). According to Richards (2005), through this process themes emerge from the data, ultimately leading to theories.

In this study, the data—open-ended interview responses—were broken down into distinct success criteria. These success criteria were assigned a code and as similar success criteria appeared in the data they were added to the code. As a code was
populated, a clearer sense of it and its relationship to other codes developed (Bernard, 2000). As the codes became clearer, their names and the data included in that code were adjusted to ensure the data and the code name properly represented the emerging theme. This analysis allowed common terms and descriptions in the data to be conceptualized as themes or categories, which then could be analyzed to determine what percent of participants had described the theme.

The primary research completed all analysis. QSR International’s NVivo 10 qualitative data analysis software assisted in the analysis. NVivo aids in the management and visualization of data, however, it is important to note that the software did not replace the analysis technique or the researcher. Rather, the software was used as a sorting, linking, and data storage tool in the analytical process (Bazeley, 2007). For a complete description of how NVivo was utilized in this study, see Appendix A.

Focus Groups

Three focus groups were held to validate, interpret, and enhance interview findings (Bernard, 2000). The primary researcher presented preliminary findings from the interviews and through directed conversation the group substantiated and contextualized the findings. The OSU Small Farms Program focus group was held in June 2014 with eight faculty members. Two farmer focus groups, consisting of four farmers each, were held in October 2014 with a total of eight farmers that had participated in the study. These participants were selected to ensure even representation of the study population. The farmer advisors for the project also participated in these focus groups. In order to
capture the geographic diversity of the study population, one farmer focus group was held in the north Willamette Valley and the other met in the south Willamette Valley.

Data from the focus groups shaped the findings presented in the results section. The OSU faculty focus group helped determine what findings were of greatest use to extension educators; helping the researcher narrow the study results. Farmer focus groups validated findings, ensuring that the interpretation of the interview data reflected the farmer participants’ perspectives. In addition to these uses of focus group data, some insights from the farmer focus groups are mentioned in the discussion section.

**Study Limitations**

The data gathered for this study are largely qualitative and the sample size was not adequate for detailed statistical analysis. Therefore, statistics were intentionally confined to the percent of farmers describing each success criteria.

The study population of small direct-marketing farmers is a diverse, busy, and many times private group of individuals. Additionally, since small farms are not organized into a formal group, comprehensive and probability sampling is not plausible. Since purposive sampling was used, the findings of this study cannot be applied beyond the study population, small direct marketing farms in the social and ecological context of the Willamette Valley of Oregon. However, while the specific context was unique, there are many small farms throughout the U.S. with shared traits, similar ideology, and a common national social context. These findings may serve as a case study to increase the
understanding of small farms and assist those that work with small farmers throughout the nation.

On many accounts my role within and knowledge of the study population were assets to this research, but they also created limitations. Bernard (2000) warns that inside knowledge can limit the researcher’s objectivity and make it more difficult to view theories. Bernard states the importance of balancing the benefits of participant observation, with the ability to view data from the perspective of a newcomer.

Results

Study Population Characteristics

Small farms are diverse. As noted, selection criteria limited the study population to small farm businesses producing products utilized in the local food systems of the Willamette Valley of Oregon. Within this population, farmers were selected to represent the diversity within the population. The farmer participants varied by gender, age, and years of experience. They operated farms with a high diversity of crops or livestock and integrate different production types (annual, livestock, and perennial). The farms varied in acreage, gross sales, and locations.

The farms in this study represent the geographic range of the Willamette Valley. Figure 3.3 shows the distribution of the study participants’ farms throughout the valley. Farms in each of the 10 counties within the Willamette Valley participated.
The farms in this study produced diverse products within their production type and integrated different production types into their farm operation. The farms primary products included annuals—vegetables, seed, beans and grains—(55%), livestock—including honey—(32%), and edible perennials (13%). The farms in this study were highly integrated, with 66% of the farms growing two or more production types. Annual producers were more likely to integrate production types, averaging of 2.26 production types per farm. Livestock operations were the least likely to have additional production types, with an average of 1.50 production types per farm. Figure 3.4 illustrates the percent of farmers by production type. Additionally, the graph shows the percent of farmers producing ancillary farm product, including value-added, agritourism, and services.
The experience level of the farmers in this study varied widely from farmers with no prior experience to farmers that were raised on the farm they were operating. The age of the farm businesses in this study ranged from one year to a second-generation farm that had been operating continuously for 83 years. Twenty-one percent of farms in this study have operated their farms for more than 20 years and 23% have operated their farm between 11 and 20 years. Fifty-six percent of farms in this study were beginning farmers, having operated their farm for less than ten years (Ahearn & Newton, 2009). Half of the beginning farms have been in operation for five years or less. Prior to starting their farms, 30% of farmers in this study had no previous hands-on farming experience, while 19% were raised on a farm.
The number of acres the farms operated varied within and among production types. Some variation was explained by production type, and integration of multiple production types. The number of acres farmed varied from 0.25 acres of vegetables to a ranch managing 600 acres. Table 3.3 displays the median and range in acreage for the three main production types. Livestock operations had the highest median acreage and the greatest variation in acreage. The livestock acreage was skewed in both directions with four ranches operating 350 to 600 acres and two operations operating five acres. The two five-acre livestock operations are raw milk dairies, which are subject to regulations in Oregon that indirectly limit the farm scale. Eighty percent of annual producers in this study operated less than 50 acres and 53% operated less than five acres. The five annual operations that operate the largest acreages (80 to 170 acres) also produce feed, livestock, and/or perennials. Six of the seven perennial operations ranged from 1.5 to 18 acres. One perennial farm operated 65 acres.

Table 3.3

_Acreage Statistics by Primary Production Type_

<table>
<thead>
<tr>
<th>Production Type</th>
<th>Median Acreage</th>
<th>Maximum Acreage</th>
<th>Minimum Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock</td>
<td>48.5</td>
<td>600</td>
<td>5</td>
</tr>
<tr>
<td>Annuals</td>
<td>10</td>
<td>170</td>
<td>0.25</td>
</tr>
<tr>
<td>Perennials</td>
<td>10</td>
<td>65</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Rates of land ownership varied by years of experience and production type. Figure 3.5 shows the rate of farm ownership and leasing for each production type. Perennial operations and those in operation for more than five years had higher rates of
ownership. Seventy-seven percent of farms in this study owned land. Among farmers in business more than five years, 85% owned a portion of their land. Farmers with perennial operations owned a portion of the land they produced on. Perennials are a long-term investment and many farms hesitate to invest in perennials unless they own the land. In contrast, renting was most common among annual operations, which harvest their crop within months of planting. Fifty percent of livestock operations rented land in addition to the acreage they owned. This was most likely due to the high quantity of acreage required for grazing. Eighty-nine percent of farmers in this study lived on their farms. The majority of those not living on their farms were beginning farmers.

Figure 3.5. Ownership of land by production type.

Annual gross sales were highly variable across the study population, ranging from $5,000 to $1.1 million. Figure 3.6 shows the percent of farmers by gross sales. Twenty-six percent of the study population had gross sales of less than $30,000 a year. Fifty-five
percent of the farmers making less than $60,000 were beginning farmers. The eleven
farms making $250,000 or more in gross sales were evenly split between livestock and
annual operations. The highest earners, at $800,000 and $1,100,000, were annual
operations. The highest earning vegetable farms had been in business more than twenty
years, while the highest earning livestock producers were both beginning farmers. Each
production type was looked at separately when comparing acreage and gross sales in
order to account for the differences in land use, and still there was no connection.

Figure 3.6. Percent of farms per gross sales categories.

The study population was equally divided by gender and age. Fifty-five percent of
the study participants were female and 45% were males. The average age of the farmer
participants was 50 years old, which is younger than the national and Oregon average age
of 58 and 60 years old respectively (USDA National Agriculture Statistics Service,
2014b). This was likely due to the equal representation of beginning and experienced
farmers in the study population. Beginning farmers tend to be younger and make up a smaller percent of the general farmer population. While beginning farmers are younger on average, the beginning farmer population in this study was split between younger and older farmers, which is in line with the OSU Small Farms Program observations on the beginning farmer population in Oregon. In this study 53% of beginning farmers were under 45 years old, while 45% were between 45 and 65 years old and one beginning farmer was over 65 years old.

*Dimensions of Small Farm Success*

I am just so passionate about this work and it touches so many different levels. It touches my concern for the whole food system; it touches my concern for the whole earth and this piece of land that we have been able to steward…. We provide fresh really healthy and nutritious food and knowing the kids are eating the vegetables. I don’t know how anybody could do this, work so hard and still love it, if they were not so passionate about it. There are so many levels: national, state, household—it is so multi-faceted. Having support from the neighbors, all the positive feedback from all these levels and knowing we are part of a movement, that is why we do it happily and can keep going. (Farmer Participant #16)

Small farmers in this study were pursuing farming as more than a way of making a living. In the interviews small farmers’ description of their vision of success clearly reflected the various objectives the farmer had incorporated into their farm business. They spoke of the farm as a businesses, occupation, home, and ecosystem. The data demonstrated that many develop their businesses as a form of activism. The farm business was also described as an instrument used to create a desired lifestyle, work towards social change, or strive for personal accomplishment. Farmers expressed the role
of their farms as developing community, enhancing rural economies, supplying local sustainable food, and preserving farm landscapes, genetics, and knowledge.

Farmer interview participants stated that they strive for multiple dimensions of success simultaneously. Consistent with the literature defining small business success, small farmers included both financial and non-financial criteria in their vision of success. While small farmers have many objectives, above all things they spoke of their farms as businesses and embraced the importance of financial success. However, farmers were clear that financial success alone does not define a successful small farm. Rather, financial success was listed as one of four prominent dimensions of small farm success:

1. Social
2. Operational
3. Quality of life
4. Financial

Small farmers spoke of a diverse set of indicators within each dimension of success. Table 3.4 shows the dimension of success and the most frequently used indicators.
Each farmer’s vision of success was unique. As stated above, farmers have various objectives for their farm businesses, which reflect the farmer’s motivations and goals. Likewise, the farmer’s vision of success mirrored their priorities. While all farms in this study used a mixture of indicators from multiple dimensions of success, farmers did not necessarily include each dimension. Figure 3.7 shows how frequently farmer participants incorporate each dimension of success into their criteria for small farm success.

Table 3.4

The Dimensions and Corresponding Indicators of Small Farm Success

<table>
<thead>
<tr>
<th>Dimension of Success</th>
<th>Categories of Indicators</th>
<th>Example of Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>Belief or Cause</td>
<td>• Environmental causes (i.e. sustainable agriculture, biodiversity) • Farming causes (i.e. preserving breeds, maintaining farming skills)</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>• Building relationships • Providing healthy food • Being an employer</td>
</tr>
<tr>
<td>Operational</td>
<td>Production</td>
<td>• High product quality • Adhering to desired production practices • Achieving efficiency</td>
</tr>
<tr>
<td></td>
<td>Markets</td>
<td>• Customer satisfaction • Favorable reputation in the marketplace • Long-term customers</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Lifestyle</td>
<td>• Achieving work life balance • Farmers physical and emotional health • Staying home to raise a family</td>
</tr>
<tr>
<td></td>
<td>Personal Satisfaction</td>
<td>• Work satisfaction • Feeling of accomplishment • Enjoying continued learning and the challenge of the occupation</td>
</tr>
<tr>
<td>Financial</td>
<td>Solvency</td>
<td>• Farmer is making a living • Farm is still in business • Farmer is achieving desired hourly wage</td>
</tr>
<tr>
<td></td>
<td>Growth</td>
<td>• Increasing gross sales or net income • Increasing capacity for production (i.e. additional acreage)</td>
</tr>
</tbody>
</table>
Figure 3.7. Percent of farmers utilizing dimensions of success.

**The social dimension.** Farmers in this study described developing their businesses to create social change and be a positive part of their community. Farmers were drawn to environmental stewardship and sustainable farming (28%), providing healthy food (15%), building community (21%), education goals (11%) and providing employment (11%). While the specific cause varied, 60% of farmers expressed their business’ contribution to society as part of their success.

**The operational dimension.** When explaining the success criteria for their businesses, 64% of farmers named operational indicators. Operational success included both market and production criteria. Farmers judged their operational success based on customer satisfaction and their reputation in the marketplace (40%), product quality (21%), and adoption of desired production techniques (17%).
Farmers not only saw operational success as vital to the business’s success, but as an accomplishment in itself. Farmers described farming as a demanding craft that requires a diverse skill set. “I like that it is very diverse work and that it is very challenging. I have to try to obtain skills in many different areas from biology to mechanics to accounting” (Farmer Participant #56). Farmers also described the variable and unpredictable production conditions they navigate. These challenges made the operational dimension of success an important part of small farm success criteria.

The quality of life dimension. Approximately three-quarters of the farmer participants discussed the quality of life dimension of success. Farmers’ descriptions of the quality of life dimension included lifestyle and personal satisfaction indicators. Fifty-nine percent of farmers named personal satisfaction indicators as playing an important role in their concept of success. These indicators included: work satisfaction (38%), accomplishment and life-long learning (21%), and gaining appreciation and honor from their community (11%). Lifestyle indicators were mentioned by 40% of farmers. Common lifestyle criteria farmers spoke about are: work-life balance (19%), financial stability as it relates to quality of life (11%), physical and emotional health (11%), and being at home with their children (9%).

The financial dimension. The financial dimension of success was the most commonly used success criteria among small farmers. Ninety-eight percent of the farmers spoke of their use of financial indicators in determining the success of their business. As in the small businesses literature, small farmers did not describe their financial success criteria in the traditional terms of economic growth. Ninety-three percent of farmers
discussed solvency where only 15% spoke about growth in sales, income, or production capacity when evaluating their success. The predominant financial goal of small farms in this study was to be financially viable and cover the households needs.

In the interviews farmers framed financial criteria in terms of the household. Table 3.5 shows common financial criteria farmers described illustrated with quotes from farmer participants. These financial criteria show the connection between farm household and businesses, as well as the variation in the financial expectations farmers have for their farm businesses.

Table 3.5

Farmer Participant Quotes Describing Financial Criteria in Terms of the Household

<table>
<thead>
<tr>
<th>Financial Criteria</th>
<th>Farmer Participant Quote Describing Financial Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covering benefits</td>
<td>“The point we want to get to is that the farm covers our health insurance and we are not there yet.” (Farmer Participant #16)</td>
</tr>
<tr>
<td>Making a living</td>
<td>“For me my goal is to make enough, we are not going to be rich, but for me, I have an infant son and I want to be able to work from home and pay the bills.” (Farmer Participant #9)</td>
</tr>
<tr>
<td>Affording to leave off-farm employment</td>
<td>“The main reason that I feel like our farm is success is that we have not had off-farm income since we have started the farm.” (Farmer Participant #55)</td>
</tr>
</tbody>
</table>

Farmers’ criteria for financial success were dependent on the household’s financial situation, the farm’s stage of development, and the investment required in the farm business. Farmers with off-farm income or savings were operating in a different financial situation than those striving to generate their whole livelihood and cover farm investments with farm profits. Multi-generation farms and those that had already paid-off the high initial investment costs were also operating in a different financial situation. Additionally, different farming systems require different levels of investment, which
affected the farmer’s financial goals. Farmers determine their means, their needs, and their vision of the farm business and then strive to attain it.

Farmers’ financial success criteria are dynamic. The households’ financial situation and the state of the farm system (such as differing years in business, transition to new owners, or expansion/contraction) fluctuate and influence the farmers’ financial success criteria. One farmer spoke about how aging was affecting their farms financial success criteria, “I have to look at not only meeting our needs for the ranch and for our living expenses now, but I am getting to the age where we are beginning to look at retirement” (Farmer Participant #47). Alternatively, other farmers spoke about changing their financial success criteria and then altering the relationship between household and farm business to fit the new criteria. In the quote below, one farmer expressed the transition in how they viewed their farm’s financial success criteria after years of struggling under their previous financial success criteria.

Instead of trying to buy the farm we are leasing it, instead of the farm being the sole source of income for our household I have an off farm income. ... In the beginning I wanted to buy the farm, [my partner] and I would work here—solely here—and it would provide all the income we need. My new definition is, we want the farming operation to basically pay for itself. And then use outside income to cover our personal overhead—which includes paying for retirement and medical bills etc. (Farmer Participant #67)

Modeling the Importance of Financial Success

There are a lot of other things we expect from our business besides being profitable. But when I measure whether the business is successful it is all about money, it has to be or it is not going to be sustainable. (Farmer Participant #39)
Small farmers described financial success as a vital component of overall success. Studies from the small business literature have found that entrepreneurs view non-financial success as more important than financial success (Gorgievski et al., 2011; Reijonen, 2008; Walker & Brown, 2004). This study does not provide a ranking of the two, but farmers were asked what role financial success played in their overall concept of success. Analysis showed farmers in this study see the role of financial success in four ways, each perspective is modeled in Figure 3.8. In each model, financial success, as defined by the farmer, is prominent. However, the models also illustrate that financial success was not considered a success if achieved to the exclusion of other dimensions of success.

Figure 3.8. Models of farmer perspectives on the importance of financial success.
**The baseline of success.** Farms in this category focused on profit as the definition of a business. These farmers stressed that finances must come first because without financial success the farm would not be in business. If they were not in business they would not have the opportunity to accomplish any other dimensions of success. One farmer participant stated, “[Finances] are the most important part. If we do not meet our financial goals then we cannot work on any of our other goals. So it is the one that comes first” (Farmer Participant #56).

**Equal dimensions of success.** Farmers with this perspective described the dimensions of success as being equally important, like legs of a stool. They stated that each dimension of success must exist for success to exist. One farmer participant noted the connection of the dimensions of success stating, “[Profitability] is one of the most crucial pieces, you cannot have success without it. But if it is all you have, it is not true success- to me at least. If you have it to the exclusion of everything else it is not true success” (Farmer Participant #1).

**Interdependent dimensions of success.** Farmers with an interdependent view of success discussed each dimension as an important contributor to the other dimension of success. This model shows these farmers found their financial success improved by their social, quality of life, and operational successes. Likewise, each of these dimensions was improved by financial success. Farmers related their environmentally conscious production with drawing more customers and higher prices for their product, resulting in improved financial success. Farmers also connected their environmental practices with decreased pest pressure and improved efficiency both leading to greater financial success.
One farmer participant linked their personal satisfaction and sales, “If we did not enjoy what we did and weren’t proud of what we were producing we would not have the smiles on our faces and our customers would not be as happy to come to our booth” (Farmer Participant # 69)

**Gauge of success.** Some small farmers used finances to gauge whether or not their business was operating properly. These farmers developed their businesses with a set of non-negotiable components that fall into the other dimensions of success. These components they ensured were successful and then they referred to their finances to determine if the system was feasible.

[Profit] is an indicator that we are doing a lot of things right. That we are doing the farming well, we are managing the business side of it well, we are able to make good relationships with employees. If the money was not there it would be a good indicator that we are failing in these other areas. (Farmer Participant #66)

**Discussion**

This study demonstrates that, for the farmers in this study, farming is more than a way to make a living and they strive for multiple dimensions of success. Although farmers value financial success, it alone does not define a successful farm. Financial success is one of four prominent dimensions of small farm success including social, operational, and quality of life. Each farmer’s vision of success is unique and mirrors their priorities. Small farmers see financial success as a vital component to overall success but do not find it defines success on its own. They see financial success as a
baseline for success, as a dimension of success of equal importance to other dimensions, as dimension of success interdependent with other dimensions, and as a gauge of success.

Previous studies looking at small farm success compared profitability and self-assessed or perceived success, finding that the two do not always occur together (Curtis et al., 2013; Duffy & Nanhou, 2002). Farmers in this study experienced this phenomenon. Many farmers stated their success, while acknowledging a lack of profitability.

“Yes, I consider us successful. … If you consider successful brand recognition we are there. Education value we are there. For a lifestyle, we are successful. We have health benefits—that is a success. We have met a lot of people and been able to network. I consider that a success. As far as putting money in the bank, that is not a success.” (Farmer Participant #47)

Other farmers spoke about having to make a decision between profit maximization and other dimensions of success, “I got out of poultry because there was no way I could find to make a profit given my values. There were ways to make poultry profitable, but I would have had to compromise my values” (Farmer Participant #27). The results of this study help explain this phenomenon through investigating small farmers’ perception of success. Farmers have a multitude of accomplishments, financial and non-financial, to incorporate into their farm businesses’ success. This study provides a framework to explain the holistic nature of small farm success, as well as four alternate models describing the importance of financial success to small farmers.

The small business literature provided the basis of the framework for a holistic view of success. The literature recognizes the role of the entrepreneur in small businesses and notes that small businesses use a variety of success criteria beyond traditional financial measures of success. This study confirms that small farms like small businesses
use non-financial and financial, as well as person-oriented and business-oriented success criteria. This study moves beyond these dichotomous categories of success criteria, building a framework that portrays the farmer participants description of small farm success as consisting of four dimensions: social, operational, quality of life, and financial. These four dimensions align with Walker and Brown’s (2004) findings that small business owners measure success according to physiological rationale or the lifestyle factor, financial rationale, and the social responsibility factor. These factors play a role in small farm success with the notable addition of the operational dimension of success.

Farmers’ attention to the operational dimension of success aligns with literature related to craft and manufacturing industries. Here the operational dimension of success was termed business strategy performance criteria (Gorgievski et al. 2011). A number of studies highlight the operational dimension of success in small craft and manufacturing businesses (Jarvis et al., 2000; Reijonen & Komppula, 2007; Toledo-Lopez et al., 2012). Farming, like these industries, is a craft learned through active participation that results in a tangible product. Findings in this study in combination with previous literature indicate that the operational dimension of success is industry dependent.

Small farmers confirmed their use of a holistic view of success, while consistently emphasizing the central role of financial success in their definition of small farm success. “There are a lot of intangibles, but this is still a job. If it does not pay the bills then gross adjustments need to be made” (Farmer Participant #28). The financial dimension of success was the most frequently utilized dimension of success. This study found four alternate models that explain the role of financial success in relation to the other
dimensions of small farm success: finances as the baseline, an equal dimension, an interdependent dimension, and the gauge of success. While the specifics of these models vary, each confirms that small farmers see financial success as vital, yet not the sole dimension of success.

The small farmers in this study did not align well with the small business literature finding that entrepreneurs of small businesses place greater importance on non-financial success measures, especially those that operate out of their home. While 89% of farmers in this study lived on their farm, the data did not show these small farms place greater importance on non-financial success. Qualitative data demonstrated the strong importance of financial success to small farmers. Small business literature utilized quantitative methods to determine which was more important to small business owners. Further research is needed to understand whether small farmers find financial or non-financial success more important. However, the four models that illustrate farmers view on the financial success moved beyond a ranking of importance to model the relationship of financial and non-financial success criteria.

“My goal is not to shift away from focus on ecology and the environment and doing the right thing and producing the most nutritious healthy food I can. It is not to shift away from that. It is just to add profitability to it. It is not to go this other direction, which is so prevalent in society—total focus on profitability and externalization of all costs. I don’t want that. I just want to do this good restorative healthy farming in a way that is more [profitable].” (Farmer Participant #1, quote from focus group)

The importance the study population placed on financial success was an indicator of the financial difficulty farmers in this study were experiencing. Farmer focus group participants interpreted the emphasis on financial success as a result of how challenging it
is for small farms to achieve financial success. As discussed in the following chapter of this thesis, profitability is a major challenge for the farmers in this study. Qualitative data from the interviews confirmed the focus group’s interpretation,

“We have been working really hard to make the farm profitable. One thing we did was to grow and increase turn over. … Despite growing an enormous amount including huge growth within sales over the last three years our overhead cost continued to increase at such a high rate even though we were trying to keep them contained that we began to realize that the only way we could actually begin to be profitable was to grow to the point where we were having something like over one million in sales and the only way we could do that was to become a distributor. There was no way we could produce anywhere near that amount. Basically, the margins are so thin on these products and the production costs are so high for production, marketing, and sales that we could not figure out a way to do it that actually maintained a reasonable life on the small farm—the life that we were drawn to. Since we have talked to you last, we have made some decisions. We have been rethinking and revising and we are scaling back rather than growing.” (Farmer Participant #72)

Conclusion

This study describes the perspective of small direct marketing farms operating in the Willamette Valley of Oregon on their farm business success criteria. The data show that the framework for small farm success includes four dimensions: social, operational, quality of life, and financial. Farmers consistently discuss the holistic nature of their concept of success, while reiterating the necessity for and struggle with financial success. This framework for small farmers concept of success proves important for small farm viability, with implications for small farmers, perspective farmers, educators, lenders, and advocates of the local food systems.
Small farmers can benefit from integrating the findings of this study into their planning. This study urges small farmers to consider what success is for their business, plan for how to achieve success, and return to their planning to review the plan and reevaluate their concept of success. Small Farmers can use the framework developed in this study to assist in this process, learning from how other farmers interpret success and overlay financial and non-financial criteria. This study provides beginning and perspective farmers with more information about small farm success, offering perspective on how farmers frame their idea of success and what they expect from their businesses. For instance, understanding that many farmers’ financial goal is to make a living sheds light on the financial situation of small farms. Hearing that some farmers utilize the hourly wage to gauge financial success can help other farmers develop a better system to analyze their business. Additionally, seeing the range of non-financial success small farms achieve can assist small farmers in fully appreciating the impact of their work.

Those working with small farms can benefit from improved understanding of these businesses. Studies indicate that lenders lack knowledge of small farms, which leads to a lack of willingness to lend to these businesses (Cocciarelli et al., 2010; Shute, 2011). Understanding how small farmers evaluate success and the importance they place on financial success can serve to improve lenders misconceptions of small farms as non-commercial entities. Educators, especially those teaching whole farm planning, can incorporate the framework of small farm success into their curriculum, encouraging farmers to consider what success is to them and helping them set realistic goals.
This study indicates that small farmers’ struggle with financial success, an important finding with implications for the viability of the local food movement. Understanding this struggle and addressing it without compromising the other dimensions of small farm success is necessary to ensure small farms profitability and success. Viable small farm businesses are key to the success of local food systems and the sustainability of the local food movement.
Chapter 4: Challenges Facing Small Farmers

Abstract

This study investigates the success of small farmers operating direct marketing farm businesses in Oregon’s Willamette Valley. Small farms are important players in local food systems and ensuring their success is an important part of expanding and sustaining local food systems. Building on previous literature, this qualitative study develops a framework to explain the interconnected internal and external challenges small farmers face. Small farms exist within a social context that poses external challenges confining the farm system. The farmer negotiates the farm system and scale to address both external and internal challenges. Beginning and experienced farmers face the same challenges, but beginning farmers report internal challenges, land access, and access to capital at greater rates than experienced farmers. Experienced farmers speak more frequently about policy and regulations, and labor as challenges. Findings improve understanding of these innovate businesses, with implications for research, education, and small farm planning.

Introduction

The United States is experiencing an expansion of local food systems. Although farms of a variety of sizes participate in local food systems, small direct marketing farms are key players. Determining the challenges these small farmers face to ensure their success is an important part of expanding and sustaining local food systems. Previous studies related to the challenges small farmers’ face do not focus on small farms, instead focusing on challenges within local or sustainable food systems, urban agriculture, organic agriculture, direct marketing, and beginning and young farmers. Additionally,
researchers have noted that previous studies’ methods have limited farmers the ability to fully express their views on challenges facing their farm businesses (Castillo et al., 2013; Peterson et al., 2010). This study addresses these gaps in the literature.

*American Agriculture: Transition and Opportunity*

Statistics reveal that American agriculture is in transition. According to the 2012 Agricultural Census the number of farms in the United States decreased by 4.3% from 2007 to 2012 (USDA National Agriculture Statistics Service, 2014a). During the same time, farms with less than 1,000 acres and those with less than $500,000 in sales decreased at a greater rate than farms with greater acreage and sales (USDA National Agriculture Statistics Service, 2014b). In line with a 30-year trend, the average age of farmers in the United States, 58.3 years, continues to rise (USDA National Agriculture Statistics Service, 2014a). The aging farmer population may foreshadow attrition of farm businesses, which may lead to consolidation and loss of farmland, declining rural communities, as well as the loss of farming tradition and knowledge (Goldschmidt, 1978; Hightower, 1973; Shute, 2011).

To address the growing concern about the increasing age of farmers in the United States, the Agricultural Credit Improvement Act of 1992 put in place beginning farmer assistance (Ahearn & Newton, 2009). Beginning farmers are defined as farmers that have operated their farm for 10 years or less (Ahearn & Newton, 2009). Beginning farmers are younger than experienced farmers, with an average age of 49 (Ahearn, 2013). However, researchers have noted that 37% of beginning farmers are over 50 years old (Ahearn, 2013) and 13% are retired (Ahearn & Newton, 2009). Ahearn and Newton (2009) stated
that part of the reason for the relatively large percent of middle-aged beginning farmers is the high start-up costs of farm enterprises, which poses a barrier to entry for young beginning farmers. Beginning farmers face significant challenges in establishing their farms, including finances and access to land (Ahearn & Newton, 2009). Statistics show that beginning farmers tend to rely more heavily on off-farm income (Ahearn & Newton, 2009). The 2012 Agricultural Census reported a 20% decrease in the number of beginning farms since 2007; beginning farmers now make up 22% of all farms (USDA National Agriculture Statistics Service, 2014a).

Another aspect of the transition occurring in American agriculture is the growth of local food systems. There are a growing number of farms selling food locally through direct marketing channels (Cocciarelli et al., 2010; Low & Vogel, 2011; O’Hara, 2011; Martinez et al., 2010). The number of farmers’ markets and local food sales are increasing (Low & Vogel, 2011; Martinez et al., 2010), as are the number of farms participating in direct marketing—rising 58% between 1992 and 2007 (Low & Vogel, 2011). The growth of local food systems is about more than local food sales. It includes a number of integrated elements such as sustainable production, fair labor practices, animal welfare, small farms, and local economies (Martinez et al., 2010). It has been identified as a social movement, creating an alternative to the conventional food system (Feagan, 2007) and a rise of moral economy (Hinrichs, 2000, Kloppenburg et al., 1996).

Researchers have found small farms compose the largest percent of vendors in local markets (Low & Vogel, 2011; Martinez et al., 2010; O’Hara, 2011). According to the 2007 agricultural census 96% of farms participating in farm direct marketing have
annual sales of less than $250,000 (O’Hara, 2011). Lev and Gwin (2010) note that while farms with gross sales under $250,000 make up the majority of farms participating in local direct sales, farms with higher sales are also participating. The researchers report that farms with gross sales over $250,000 generate 43% of the national farm direct sales revenue.

Small farms participating in the local food systems play a multifaceted role within our society. Small farms are an important contributor to rural communities and economies (Goldschmidt, 1978; Hightower, 1973; Martinez et al., 2010; Vogel, 2013). Local food purchasing has been linked to economic development within communities through import substitution (Martinez et al., 2010; O’Hara, 2011; Swenson, 2009). Farmers’ markets and agritourism draw consumers into city centers and rural communities (Lev & Stephenson, 2001; Brown et al., 2013). Researchers have linked local food systems to health benefits through the higher nutrient content of fresh food and improved access to healthier food (Jolly, 1993; Lea, 2005; Martinez et al., 2010). Some researchers note that local food systems likely result in energy savings due to changes in consumers’ diets away from processed foods and towards fresh produce produced on less mechanized farms (Canning et al., 2010; O’Hara, 2011; Weber & Matthews, 2008). Additionally, local food systems preserve agricultural landscapes (Hilchey et al., 2008; O’Hara, 2011), improve biodiversity (Brown & Miller, 2008; Goland & Bauer, 2004; Sorte, 2009), and encourage sustainable agricultural practices (O’Hara, 2011).
Challenges Facing Small Farmers

There are many studies related to the challenges small farmers face but few studies focus on small farms. Related studies have looked at challenges to local or sustainable food systems (Martinez et al., 2010; Peterson et al., 2010), urban agriculture (Castillo et al., 2013; Lovell, 2010), organic agriculture (Stephenson et al., 2012), direct marketing (Griffin & Frongillo, 2003; Hinrichs, 2000; Starr et al., 2003; Tropp & Barham, 2008), and beginning and young farmers (Ahearn & Newton, 2009; Freedgood & Dempsey, 2014; Gillespie & Johnson, 2010; Shute, 2011). Other studies investigated specific challenges that have been identified as barriers for farm businesses, such as land access (Ruhf, 2013) and financing (Cocciarelli et al., 2010). These studies provide insight on the challenges small farmers face but they do not provide a comprehensive analysis.

Some researchers have acknowledged that studies typically have not asked small farmers to describe the challenges they experience in operating their businesses (Castillo et al., 2013; Peterson et al., 2010). Study methods have included literature reviews (Freedgood & Dempsey, 2014; Lovell, 2010; Martinez et al., 2010; Ruhf, 2013), reports from meetings of stakeholders (Cocciarelli et al., 2010; Tropp & Barham, 2008), analysis of census data (Ahearn & Newton, 2009; Goodwin & Mishra, 2004), and quantitative surveys (Peterson et al., 2010; Shute, 2011; Stephenson et al., 2012). A few studies have employed participatory research methods including: a “participatory farmer-led case study” (Hendrickson, 2005, p. 1), participant observation (Hinrichs, 2000), and qualitative interviews and focus groups (Castillo et al., 2013; Freedgood & Dempsey, 2010; Gillespie & Johnson, 2010; Griffin & Frongillo, 2003; Starr et al., 2003;
Stephenson et al., 2012). However these studies have not focused specifically on the challenges facing small farmers. Hendrickson (2005) is a notable exception; the study used participatory research to develop a case study of small farms to improve decision-making on the farm and inform a discussion on improving the livelihood of farmers.

Farmers experience challenges related to all aspects of the food system (Stephenson et al., 2012). Several themes emerged from previous studies related to the challenges facing small farmers including: 1) Access to capital, 2) Costs and investments, 3) Financial profitability and stability, 4) Production, scale, and labor, 5) Marketing and competition, 6) Social context, 7) Quality of life, and 8) Land access.

**Access to capital.** Small farmers struggle to access capital for start-up and expansion costs (Cocciarelli et al., 2010; Freedgood & Dempsey, 2014; Shute, 2011). Many farms begin with a limited initial investment causing them to lack efficiency and miss potential market opportunities (Cocciarelli et al., 2010). Young farmers in particular struggle with access to capital since many young people tend to have limited investment income, cash flow, and credit history (Cocciarelli et al., 2010; Shute, 2011).

Cocciarelli et al. (2010) stated that farmers often lack the knowledge and confidence to represent their business to lenders. Their research showed that some farmers refrain from applying for credit because they doubt lenders will view them as a legitimate business (Cocciarelli et al., 2010). Farmers need access to professional development to assist them in developing business plans and overcoming financing hurdles (Castillo et al., 2013; Cocciarelli et al., 2010; Freedgood & Dempsey, 2014; Shute, 2011; Tropp & Barham, 2008). Additionally, farmers need assistance in conveying
the potential viability of their local food businesses and the built-in risk management of sustainable production practices (Cocciarelli et al., 2010).

Some studies have shown that lenders need education to better understand and evaluate small farms. Cocciarelli et al. (2010) found that few institutions offered agriculture loans and many did not have staff versed in agriculture. The authors noted there is a general lack of willingness to lend to businesses outside the norm, especially since lending standards were tightened following the 2007-2009 recession. Shute (2011) reported that some farmers state that Farm Service Agency (FSA) loan officers were not prepared to evaluate or lend to diversified operations. Additionally, FSA loans have been criticized as not accommodating small farmers’ needs; Shute commented that FSA did not tend to issue smaller operating loans and the maximum direct farm ownership loan was $300,000—well under the amount needed to purchase a farm in many regions (Shute, 2011).

Costs and investments. Farming is a capital-intensive business with high entry, production, and maintenance costs. Research found that investments including land, equipment, infrastructure, nursery stock, and livestock pose an obstacle for small farmers (Hendrickson, 2005). Entry costs are a barrier for many beginning farmers, leading many to pursue vegetable production because it requires less initial investment (Shute, 2011). Production costs, including inputs and labor, can be a major challenge for farmers (Griffin & Frongillo, 2003; Hendrickson, 2005; Stephenson et al., 2012). High production costs are more of a challenge at smaller scale (Hendrickson, 2005; Stephenson et al.,
2012). Maintenance and reinvestment costs have been found to create financial instability (Hendrickson, 2005).

**Financial profitability and stability.** It is a challenge for farms to attain and maintain consistent profitability (Shute, 2011; Tropp & Barham, 2008; Zurayk, 2010). Zurayk (2010) commented on the irony that while local food systems have expanded somewhat small farms selling in local food systems are going out of business.

Hendrickson (2005) found that small farms experience a huge fluctuation in the percent of gross sales retained in profits—from 80% to 15%. Variation resulted from: investment and reinvestment in equipment and infrastructure, purchasing acreage, labor costs, market fluctuations, crop failures, bumper crops and weather (Hendrickson, 2005). The farmer’s context—including off-farm income streams, overhead costs, and debt load—affect a farmer’s ability to manage inconsistent farm profits (Hendrickson, 2005; Hinrichs, 2000)

**Production, scale, and labor.** As noted above, financial stability is related to production challenges. Weather, costs of inputs and labor, and fluctuating yields are all constant production challenges farmers face (Griffin & Frongillo, 2003; Hendrickson, 2005). Stephenson et al. (2012) found that weed management was a major challenge faced by organic farmers in Oregon.

Finding the appropriate scale for a given farm is a prominent issue for small operations (Hendrickson, 2005). The author noted that while there is no one ideal farm size each farm must find a functional scale and level of mechanization given their unique set of opportunities and constraints. Farmers struggle to find the scale of production and
marketing that is profitable and yet does not require the “hassles of extensive paid labor” (Hendrickson, 2005, p. 19). Likewise, farmers struggle to develop a farming system and scale that balances hand labor with scale-appropriate equipment (Hendrickson, 2005).

Small farmers not only have a difficult time affording labor, but they also struggle to find and retain a skilled workforce (Griffin & Frongillo, 2003; Hendrickson, 2005; Stephenson et al., 2012). In Oregon, zoning laws restrict the development of employee housing, minimizing farms’ ability to attract and retain workers (Stephenson et al., 2012). Hendrickson (2005) found that maintaining a skilled workforce was key to farmers’ quality of life.

**Marketing and competition.** The seasonal nature and limited capacity for production restricts market access for small farms. Farm-to-institution, wholesale, and the restaurant industry are not accustomed to these added logistics (Cocciarelli et al., 2010; Martinez et al., 2010; Peterson et al., 2010; Stephenson et al., 2012). Additionally, researchers have found a lack of processing and distribution infrastructure to facilitate small farms’ access to these markets (Cocciarelli et al., 2010; Martinez et al., 2010; Peterson et al., 2010).

Direct marketing is a logistically complex and costly form of marketing involving larger numbers of sales of less dollar value. Direct marketing requires a unique skill set, high labor input, and greater transportation costs (Martinez et al., 2010; Peterson et al., 2010; Starr et al., 2003). Producers are expected to bear the cost of these added logistics (Peterson et al., 2010). Profits from farmers’ markets are inconsistent, causing a farmer to
incur the expense of attending while potentially losing profits and perishable products (Martinez et al., 2010; Peterson et al., 2010).

Competition is a growing concern to farmers as the popularity of local food rises. The increasing numbers of farms competing in local markets is a concern in Oregon (Stephenson et al., 2012). Researchers noted farmers’ concerns with competition at the farmers’ markets include: larger scale farms that are both able to charge less and attract more customers with greater volume and variety, multiple farms selling similar products, and farms selling at unrealistically low prices (Cocciarelli et al., 2010; Griffin & Frongillo, 2003; Martinez et al., 2010). Farmers are also concerned about large corporate organic farms (Stephenson et al., 2012) and supermarkets selling local produce from large scale producers (Griffin & Frongillo, 2003; Starr et al., 2002).

**Social context.**

A farm, even a sole or family proprietorship, is not just an individual activity that occurs in a vacuum. Rather it is embedded in the conditions of the society of which it is a part, and these days, a society in which agriculture and food production, while fundamental, are no longer central. (Gillespie & Johnson, 2010, p. 37)

Gillespie and Johnson (2010) concluded that the social context within which a farm operates has a strong effect on the challenges and opportunities facing the farm. America both romanticizes and denigrates farmers, celebrating the small farm landscape as the archetype of American countryside while disparaging manual labor (Berry, 2002; Gillespie & Johnson, 2010). Agriculture is no longer part of the majority of American’s lives, which results in a lack of knowledge and understanding (Gillespie & Johnson, 2010).
This lack of understanding is reflected in consumers’ expectations. Specifically, the literature pointed to consumers’ lack of understanding of seasonality (Griffin & Frongillo, 2003), expectations regarding product quality (Starr et al., 2003), demand for low prices (Gillespie & Johnson, 2010), and reliance on convenience (Griffin & Frongillo, 2003; Martinez et al., 2010). These expectations have been shaped by the industrial food system in which global markets lack seasonality and rigid quality and appearance criteria result in homogenous stacks of produce (Griffin & Frongillo, 2002; Starr et al., 2003).

Regulation is another element of the social context that presents challenges for small farmers. Farmers point to lacking clarity and uniformity of policies (Castillo et al., 2013; Martinez et al., 2010), while other studies show that regulations are not created for the diversity of farms, specifically noting that policies do not fit small or direct marketing farms (Clark et al., 2014). Food safety regulations and insurance requirements hinder farmers’ ability to enter markets (Curtis et al., 2013; Tropp & Barham, 2008). Zoning laws restrict farmers’ access to land in urban areas (Castillo et al., 2013) and ability to provide employee housing in Oregon (Stephenson et al., 2012).

**Quality of life.** Farmers struggle to secure benefits and work-life balance. In the United States health insurance and retirement are commonly accessed through the workplace (USDA ERS, 2013). As self-employed individuals, farmers are challenged to access these benefits (Hendrickson, 2005; Shute, 2011). In 2011, about 55% of farmers had access to health insurance through an off-farm job (USDA ERS, 2013). While off-farm jobs are an important risk management tool for small farmers, some research has
shown that off-farm jobs can decrease farm efficiency (Goodwin & Mishra, 2004) and add to work-life balance challenges (Hendrickson, 2005).

Work-life balance is a concern for many small farms. Hendrickson (2005) stated that all farmers in the study struggled to balance personal time, their health, relationships, and child rearing with the time demands of their small farms.

**Land access.** Recent studies have shown land access to be among farmers’ top challenges (Castillo et al., 2013; Cocciarelli et al., 2010; Hendrickson, 2005; Shute, 2011). While some studies focused on land access as a challenge for beginning farmers (Freegood & Dempsey, 2014; Shute, 2011), others studies showed that land access can be a challenge at any stage in a farm business (Hendrickson, 2005; Ruhf, 2013). Development of farmland and increased competition for the remaining farmable acreage have caused the price of land to increase, magnifying this challenge (Freegood & Dempsey, 2014; Ruhf, 2013). Farmers have stated that it is difficult to find appropriate farmland—land with quality soils, access to water, proper zoning, and suitable acreage (Castillo et al., 2013; Freegood & Dempsey, 2014; Lovell, 2010). Finally, farmers struggle with the process of negotiating a sale or lease (Freegood & Dempsey, 2014).

**Beginning Farmers’ Challenges**

Several studies have focused on the challenges confronting beginning farmers. In 2009, the USDA completed a study of beginning farmers’ challenges using Agricultural Marketing Service and Census of Agriculture data (Ahearn & Newton, 2009). The National Young Farmer Coalition (NYFC) surveyed beginning farmers across the nation (Shute, 2011). The survey was developed by NYFC based on their own personal
experience as farmers (L. L. Shute, personal communication, September 11, 2014). American Farmland Trust recently published a study on beginning farmer challenges that combined a literature review and interviews with representatives from organizations working with beginning farmers (Freegood & Dempsey, 2014). These studies did not compare the challenges of beginning and experienced farmers; rather they started with the notion that beginning and experienced farmers face different challenges. Additionally, these studies lack qualitative analysis of the farmers’ perspective. Such analysis may illuminate under represented challenges.

These studies consistently find that access to land is a main issue for beginning farmers, along with financial challenges. Ahearn and Newton (2009) found that the main challenges for beginning farmers are high start-up costs and insufficient land for sale or lease. Shute (2011) found that the top five challenges were: lack of capital, land access, health care, access to credit, and business planning and marketing skills. Freegood and Dempsey (2014) found that access to land was the most discussed challenge followed by securing access to credit and financing.

Study Area

This study is specific to small direct marketing farms operating in Oregon’s Willamette Valley (Figure 4.1). The area is an ideal location for active local food systems because of the combination of prime farmland in close proximity to urban centers. The valley is among the most productive agricultural regions in Oregon, accounting for 42% of gross farm and ranch sales in the state (Oregon Department of Agriculture, 2013). Oregon’s three largest cities, Portland, Eugene, and Salem, are located in the Willamette
Valley. These metro regions together are home to 78% of Oregon’s population (Population Report Center, 2014). Urban areas have higher direct marketing sales than rural areas, with 80% of direct marketing farms located either in urban counties or counties adjacent to urban counties (Low & Vogel, 2011).

Figure 4.1. Study area within Oregon’s Willamette Valley

The Willamette Valley has experienced an increased interest in locally produced food. For instance, using farmers’ markets as an indicator shows the growth and location of direct sales. In 1998 there were 36 farmers’ markets in Oregon (Stephenson, 2008), in 2014 there were 113 farmers’ markets operating as members of the Oregon Farmers
Market Association (Oregon Farmers Market Association, 2014). Of these markets 20% are in Portland and 58% are in the Willamette Valley (Oregon Farmers Market Association, 2014).

The Willamette Valley’s local food system has gained national media attention. The New York Times often reports on the farm-to-table industry in Portland, Oregon’s largest city, which one author termed Portland’s *new provincialism* (Yardley, 2010). Articles report on Oregon’s young beginning farmers (Raftery, 2011), creative farm business models (Johnson, 2012), and the educational opportunities offered by the Oregon State University Extensions Small Farms Program—a recognized resource serving small farms in Oregon and important contributor to this study (Korkki, 2012). Oregon is known as a having a culture of local food (Raftery, 2011).

**Methods**

The methods for this study were highly participatory, integrating semi-structured interviews, focus groups, participant observation, and farmer advisors—two farmers acting as key informant and advisors. These qualitative methods grounded the research in the farmers’ experience, utilizing their words and actions as qualitative data. The study participants were purposively selected to represent the types of small farms who participate in the Willamette Valley’s local food systems through direct marketing channels. The data analysis utilized grounded theory, allowing theory to develop in the process of coding and categorizing the data. These qualitative methods provided depth

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4 Oregon State University Extension Small Farms Program will be referred to as the OSU Small Farms Program.
and allowed the data to direct the research. In this way, the study conveys the farmers’ perspective.

Multiple Methods

This study utilized multiple methods combining semi-structured interviews, focus groups, participant observation, and farmer advisors as illustrated in Figure 4.2. Multiple methods is an approach that combines research methods to triangulate and complement findings (Greene et al., 1989). In this study, findings from 53 semi-structured interviews were presented in three focus groups, two composed of farmers selected from the original study participants and one with the OSU Small Farms Program faculty. The focus groups served to validate, situate, and expand interview findings, thus enhancing interpretation of the results (Bernard, 2000). Additionally, this study utilized participant observation and farmer advisors to ground and expand the findings.
Affiliation with the OSU Small Farms Program elevated the standing of this project within the small farm community and provided important insight during the participant selection process. Figure 4.2 illustrates the role of the OSU Small Farms Program. Since its inception in 1997, the program has become widely regarded in the Oregon small farm community. The organization conducts the annual Small Farms Conference with more than 800 attendees and a wide array of educational and research projects throughout the state. My association with the OSU Small Farms Program improved my access to and the trust of study participants during interviews and focus groups. In addition, the OSU Small Farms Program faculty played a key role in the research through the participant selection process.
My experience within the Willamette Valley small farm community and my affiliation with the OSU Small Farms Program created rapport and advanced my understanding of small farms. I have been both an active participant, performing the same activities as the study population, and as a moderate participant, a researcher balancing my role inside and outside the community (Bernard, 2000; Spradley, 1980). I have actively participated within the community as a farm apprentice in 2007 and a farmers’ market vendor in 2013 and 2014. These roles—as farmer and vendor—provided an insider’s perspective of the daily activities of farm businesses, which improved my understanding of farm businesses and developed my reputation within the community. As a moderate participant I worked with farmers in a professional capacity as a member of the OSU Small Farms Program. This work included on-farm research projects, educational events, and coordinating a women farmer network.

Two farmers from the study population served as advisors and key informants for this study. Key informants are members of the study population who understand the study objectives and can speak openly to the researcher (Bernard, 2000). I had previous professional relationships with the farmers selected as advisors. Additionally, the farmer advisors are organizers within their community and therefore are accustomed to speaking for their community. They assisted in the development of the questionnaire, participated in the interviews and the focus groups, and provided valuable insights. In this way, the advisors were involved in the development, investigation, and interpretation.
Participant Selection

This study utilized purposive sampling, a form of non-probability sampling described by Bernard (2000), to select the farms included in this study. Small farms are not formally organized and thus cannot be reliably sampled by probability sampling methods. Since, this study focused on a specific set of small farms—small farm businesses participating in the local food systems in the Willamette Valley of Oregon—purposive sampling allowed the selection of study participants fitting this profile.

To select farms fitting this profile, selection criteria defined the region, farm scale, marketing method, farm products, and businesses designation of farmer participants. The study’s geographic extent was limited to the natural boundary of the Willamette Valley. The region was chosen because of its importance as an agriculture region and my prior professional experience with the Willamette Valley small farm community. The criteria limited farm products and marketing methods to select farms selling their primary farm product in the local food system. Eligible farms products included crops and livestock grown for human consumption and products used directly in the production of food, such as vegetable seed. Wine producers were not included since wine is not considered a food product. The criteria required farms use direct-to-consumer, direct-to-retail, or direct-to-institution marketing. Farms did not have to use direct marketing exclusively. In this way, direct marketing of food products was used as a proxy for local food, as modeled in previous research (Martinez et al., 2010). This study did not use the USDA definition of small farms to avoid limiting the economic success of the study population. Instead four OSU Small Farms Program faculty identified small farms meeting the criteria in the
region. Additionally, the farmers had to self-identify as small farm to participate in the study. Finally, to ensure the farms were operating as businesses and could not be classified as *hobby farms*, they had to file taxes as a business in order to participate.

Four OSU Small Farms Program faculty identified 82 farms fitting the criteria. These farms received an introductory letter that described the study and to request an interview followed by email and telephone correspondence to schedule interviews. As interviews accumulated, purposive sampling maintained a geographically and demographically balanced pool of respondents. Following this procedure, 59 farmers were interviewed. Seven of the original 82 farms were eliminated because contact information could not be located or the farm had been dissolved. In addition, fifteen farms did not respond to multiple contacts or an appropriate time for the interview could not be found during the study period. One farmer declined to participate due to family illness. Of the 59 interviews, two farms did not consider their farms ‘small’ and four did not file taxes for the business. These farms were eliminated from the study, resulting in a final study population of 53 farms.

This study was conducted with approval of the Oregon State University Institutional Review Board to ensure the rights and welfare of the human subjects. Participation in the study was voluntary and participants gave verbal consent after reviewing a description of the study. Interview and focus group participants provided information anonymously and protocols were followed to protect their identities.
Semi-Structured Interviews

Fifty-three semi-structured interviews with small farmers were conducted between December 2012 and June 2013. Interviews were conducted by telephone to accommodate the broad geographic range of study participants and the study timeline. For the convenience of the farmers, two interviews were administered in-person. Interviews ranged from 30 to 80 minutes. Notes were recorded during the interviews in an attempt to capture the responses as close to verbatim as possible.

Following Bernard’s (2000) description of semi-structured interviews, an questionnaire was followed to ensure the questions were addressed equally and within the same context in each interview. Semi-structured interviews provided the flexibility to clarify responses and follow leads that arose in the research. The questionnaire is outlined in Table 4.1. The questionnaire was composed of two sections: demographics and farm characteristics, and the farmers’ description of the challenges they face. The guide was tested in preliminary interviews with two farmers serving as advisors to the study. After testing, wording was clarified and demographic questions that the farmer advisors identified as important distinctions in their cohort added.
Table 4.1

Questionnaire Content

<table>
<thead>
<tr>
<th>Demographic and Background</th>
<th>Small Farmers’ Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer Demographics</td>
<td>Challenges</td>
</tr>
<tr>
<td>Age</td>
<td>• Challenges facing farm business</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Years of farming experience</td>
<td></td>
</tr>
<tr>
<td>Place of residence (on or off-farm)</td>
<td></td>
</tr>
</tbody>
</table>

Farm Business Characteristics
- County
- Acreage
- Farm products
- Direct marketing
- Year business began
- Land tenure (rent, own, both)
- Average annual gross sales
- Farm size

Data Analysis

Data were analyzed using Glaser and Strauss’s (1967) grounded theory technique. Following grounded theory methods, the qualitative data were interpreted using inductive coding, coding that allows topics to emerge from the data. Coding is a rigorous data analysis procedure that conceptualizes data by breaking them down into discrete units and organizing it into categories—or codes—named to represent the specific phenomenon (Strauss & Corbin, 1990). According to Richards (2005), through this process themes emerge from the data, ultimately leading to theories.

In this study, the data—open-ended interview responses—were broken down into distinct challenges. These challenges were assigned a code and as similar challenges appeared in the data they were added to the code. As a code was populated, a clearer sense of it and its relationship to other codes developed (Bernard, 2000). As the codes
became clearer, their names and the data included in that code were adjusted to ensure the data and the code name properly represented the emerging theme. This analysis allowed common terms and descriptions in the data to be conceptualized as themes or categories, which then could be analyzed to determine what percent of participants had described the theme.

The primary research completed all analysis. QSR International’s NVivo 10 qualitative data analysis software assisted in the analysis. NVivo aids in the management and visualization of data, however, it is important to note that the software did not replace the analysis technique or the researcher. Rather, the software was used as a sorting, linking, and data storage tool in the analytical process (Bazeley, 2007). For a complete description of how NVivo was utilized in this study, see Appendix A.

**Focus Groups**

Three focus groups were held to validate, interpret, and enhance interview findings (Bernard, 2000). The primary researcher presented preliminary findings from the interviews and through directed conversation the group substantiated and contextualized the findings. The OSU Small Farms Program focus group was held in June 2014 with eight faculty members. Two farmer focus groups, consisting of four farmers each, were held in October 2014 with a total of eight farmers that had participated in the study. These participants were selected to ensure even representation of the study population. The farmer advisors for the project also participated in these focus groups. In order to capture the geographic diversity of the study population, one farmer focus group was held in the north Willamette Valley and the other met in the south Willamette Valley.
Data from the focus groups shaped the findings presented in the results section. The OSU faculty focus group helped determine what findings were of greatest use to extension educators; helping the researcher narrow the study results. Farmer focus groups validated findings, ensuring that the interpretation of the interview data reflected the farmer participants’ perspectives. In addition to these uses of focus group data, some insights from the farmer focus groups are mentioned in the discussion section.

*Study Limitations*

The data gathered for this study are largely qualitative and the sample size was not adequate for detailed statistical analysis. Therefore, statistics were intentionally confined to the percent of farmers describing each challenge.

The study population of small direct-marketing farmers is a diverse, busy, and many times private group of individuals. Additionally, since small farms are not organized into a formal group, comprehensive and probability sampling is not plausible. Since purposive sampling was used, the findings of this study cannot be applied beyond the study population, small direct marketing farms in the social and ecological context of the Willamette Valley of Oregon. However, while the specific context was unique, there are many small farms throughout the U.S. with shared traits, similar ideology, and a common national social context. These findings may serve as a case study to increase the understanding of small farms and assist those that work with small farmers throughout the nation.
On many accounts my role within and knowledge of the study population were assets to this research, but they also created limitations. Bernard (2000) warns that inside knowledge can limit the researcher’s objectivity and make it more difficult to view theories. Bernard states the importance of balancing the benefits of participant observation, with the ability to view data from the perspective of a newcomer.

Results

Study Population Characteristics

Small farms are diverse. As noted, selection criteria limited the study population to small farm businesses producing products utilized in the local food systems of the Willamette Valley of Oregon. Within this population, farmers were selected to represent the diversity within the population. The farmer participants varied by gender, age, and years of experience. They operated farms with a high diversity of crops or livestock and integrate different production types (annual, livestock, and perennial). The farms varied in acreage, gross sales, and locations.

The farms in this study represent the geographic range of the Willamette Valley. Figure 4.3 shows the distribution of the study participants’ farms throughout the valley. Farms in each of the 10 counties within the Willamette Valley participated.
The farms in this study produced diverse products within their production type and integrated different production types into their farm operation. The farms primary products included annuals—vegetables, seed, beans and grains—(55%), livestock—including honey—(32%), and edible perennials (13%). The farms in this study were highly integrated, with 66% of the farms growing two or more production types. Annual producers were more likely to integrate production types, averaging of 2.26 production types per farm. Livestock operations were the least likely to have additional production types, with an average of 1.50 production types per farm. Figure 4.4 illustrates the percent of farmers by production type. Additionally, the graph shows the percent of farmers producing ancillary farm product, including value-added, agritourism, and services.
The experience level of the farmers in this study varied widely from farmers with no prior experience to farmers that were raised on the farm they were operating. The age of the farm businesses in this study ranged from one year to a second-generation farm that had been operating continuously for 83 years. Twenty-one percent of farms in this study have operated their farms for more than 20 years and 23% have operated their farm between 11 and 20 years. Fifty-six percent of farms in this study were beginning farmers, having operated their farm for less than ten years (Ahearn & Newton, 2009). Half of the beginning farms have been in operation for five years or less. Prior to starting their farms, 30% of farmers in this study had no previous hands-on farming experience, while 19% were raised on a farm.

The number of acres the farms operated varied within and among production types. Some variation was explained by production type, and integration of multiple production types. The number of acres farmed varied from 0.25 acres of vegetables to a

Figure 4.4. Primary and ancillary farm products by percent of farms.
ranch managing 600 acres. Table 4.2 displays the median and range in acreage for the three main production types. Livestock operations had the highest median acreage and the greatest variation in acreage. The livestock acreage was skewed in both directions with four ranches operating 350 to 600 acres and two operations operating five acres. The two five-acre livestock operations are raw milk dairies, which are subject to regulations in Oregon that indirectly limit the farm scale. Eighty percent of annual producers in this study operated less than 50 acres and 53% operated less than five acres. The five annual operations that operate the largest acreages (80 to 170 acres) also produce feed, livestock, and/or perennials. Six of the seven perennial operations ranged from 1.5 to 18 acres. One perennial farm operated 65 acres.

Table 4.2

*Acreage Statistics by Primary Production Type*

<table>
<thead>
<tr>
<th>Production Type</th>
<th>Median Acreage</th>
<th>Maximum Acreage</th>
<th>Minimum Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock</td>
<td>48.5</td>
<td>600</td>
<td>5</td>
</tr>
<tr>
<td>Annuals</td>
<td>10</td>
<td>170</td>
<td>0.25</td>
</tr>
<tr>
<td>Perennials</td>
<td>10</td>
<td>65</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Rates of land ownership varied by years of experience and production type. Figure 4.5 shows the rate of farm ownership and leasing for each production type. Perennial operations and those in operation for more than five years had higher rates of ownership. Seventy-seven percent of farms in this study owned land. Among farmers in business more than five years, 85% owned a portion of their land. Farmers with perennial operations owned a portion of the land they produced on. Perennials are a long-term investment and many farms hesitate to invest in perennials unless they own the land. In
contrast, renting was most common among annual operations, which harvest their crop within months of planting. Fifty percent of livestock operations rented land in addition to the acreage they owned. This was most likely due to the high quantity of acreage required for grazing. Eighty-nine percent of farmers in this study lived on their farms. The majority of those not living on their farms were beginning farmers.

![Ownership of land by production type](chart)

**Figure 4.5. Ownership of land by production type.**

Annual gross sales were highly variable across the study population, ranging from $5,000 to $1.1 million. Figure 4.6 shows the percent of farmers by gross sales. Twenty-six percent of the study population had gross sales of less than $30,000 a year. Fifty-five percent of the farmers making less than $60,000 were beginning farmers. The eleven farms making $250,000 or more in gross sales were evenly split between livestock and annual operations. The highest earners, at $800,000 and $1,100,000, were annual operations. The highest earning vegetable farms had been in business more than twenty...
years, while the highest earning livestock producers were both beginning farmers. Each production type was looked at separately when comparing acreage and gross sales in order to account for the differences in land use, and still there was no connection.

The study population was equally divided by gender and age. Fifty-five percent of the study participants were female and 45% were males. The average age of the farmer participants was 50 years old, which is younger than the national and Oregon average age of 58 and 60 years old respectively (USDA National Agriculture Statistics Service, 2014b). This was likely due to the equal representation of beginning and experienced farmers in the study population. Beginning farmers tend to be younger and make up a smaller percent of the general farmer population. While beginning farmers are younger on average, the beginning farmer population in this study was split between younger and
older farmers, which is in line with the OSU Small Farms Program observations on the beginning farmer population in Oregon. In this study 53% of beginning farmers were under 45 years old, while 45% were between 45 and 65 years old and one beginning farmer was over 65 years old.

**Challenges Facing Small Farmers**

Small farmers spoke at length describing the variety of challenges they face in operating their businesses. Farming is a demanding occupation with a thin profit margin, complex operating system, and a range of regulations that can be taxing on farmers’ physical and mental health.

Table 4.3 describes the challenges farmers identified as barriers to their farm business and lists the percent of farmer participants that identified the challenge. These challenges emerged from analysis of interview responses to open-ended questions and were confirmed by farmer participants in the focus groups. The challenges that emerged from the data mirrored previous studies findings with a few additions. For convenience of analysis and to align with the literature, this study utilized the categories and terms used in previous studies to describe challenges facing small farmers (outlined on page 89-95).
### Table 4.3

**Description of the Challenges Facing Small Farmers and the Quantity of Farmer Participants that Identified the Challenge**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Detail of Challenge</th>
<th>Percent of Farmers</th>
<th>No. Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and Regulations</td>
<td>Not scale appropriate, time consuming, and expensive. Policies mentioned were the farm bill, subsidies, and immigration. Regulations include food safety, zoning, payroll taxes, and raw milk.</td>
<td>55%</td>
<td>29</td>
</tr>
<tr>
<td>Profitability</td>
<td>Inadequate farmer salary, necessity of off-farm income, and lack of financial stability. Prices are too low to cover full cost of production.</td>
<td>49%</td>
<td>26</td>
</tr>
<tr>
<td>Costs &amp; Investments</td>
<td>Including production costs, investments in equipment and infrastructure, and the cost of living.</td>
<td>47%</td>
<td>25</td>
</tr>
<tr>
<td>Access to Capital</td>
<td>For land, equipment, infrastructure and operating expenses. High interest rates, no access to refinancing, perception of small farms limiting access, resulting in slowed growth.</td>
<td>40%</td>
<td>21</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Finding the time and energy, maintaining mental and physical health.</td>
<td>36%</td>
<td>19</td>
</tr>
<tr>
<td>Land Access</td>
<td>Increasing price and demand for land, finding appropriate land.</td>
<td>36%</td>
<td>19</td>
</tr>
<tr>
<td>Acquiring Resources &amp; Knowledge</td>
<td>High learning curve, and acquiring land, infrastructure, and equipment in start up years. Not being a multi-generation farm.</td>
<td>34%</td>
<td>18</td>
</tr>
<tr>
<td>Marketing &amp; Competition</td>
<td>Marketing the farm business. Educating consumers on products, CSAs, and pricing. Competing against farmers selling at low prices, an increasing number of farms and farmers’ markets, and the industrial food system.</td>
<td>30%</td>
<td>16</td>
</tr>
<tr>
<td>Society’s Knowledge &amp; Expectations</td>
<td>Consumers understanding of seasonality, price, and practices. Consumers’ expectations for cheap and convenient food. Need for consumer education. Negative view of farmers.</td>
<td>28%</td>
<td>15</td>
</tr>
<tr>
<td>Diversification, Expansion &amp; Scale</td>
<td>Balancing the complexity of labor, scale and finances, especially in periods of growth and diversification.</td>
<td>26%</td>
<td>14</td>
</tr>
<tr>
<td>Labor</td>
<td>Finding and retaining capable labor. Dealing with seasonality of work. Paying fair wages. Learning to manage labor.</td>
<td>25%</td>
<td>13</td>
</tr>
<tr>
<td>Production</td>
<td>Weather, pests &amp; diseases, developing systems, and learning truly sustainable production practices.</td>
<td>21%</td>
<td>11</td>
</tr>
<tr>
<td>Access to Benefits</td>
<td>Affording health insurance(^a) and retirement.</td>
<td>21%</td>
<td>11</td>
</tr>
</tbody>
</table>

\(^a\)Categories were based on those utilized in previous studies as outlined on pages 89-95. \(^b\)The data were collected prior to the implementation of the Affordable Care Act. This law has the potential to improve farmers’ healthcare access.
Small farmers most frequently spoke about policies and regulations as a challenge with 55% of participants mentioning this challenge. Financial challenges, including profitability (49%), costs and investments (47%), and access to capital (40%), were the next three most frequently discussed challenges. Over a third of the participants found quality of life (36%), land access (36%), and acquiring the resources and knowledge needed to operate a farm business (34%) challenging. These major challenges are outlined in greater detail below. During the focus groups, farmers commented on the spread of challenges noting that only one challenge was identified by more than 50% of farmer participants. Since the interviews were open-ended and the participants were not queried on categories created by the researcher, the diverse number of challenges identified by participants reflects the complexity and diversity of their farm businesses.

The focus groups were surprised that production was only named as a challenge by 21% of farmers. In the interviews farmers mentioned that production was a larger challenge in the past, but that increased research into organic production had improved production challenges. In the focus groups farmers concluded that not enough farmers are linking production and profitability as strongly as they should. Another insight was that farmers are sacrificing quality of life for production success, thus decreasing the challenges of production and increasing the incidence of quality of life as a challenge.

**Policy and regulations.** While the majority of farmers mentioned policy and regulations as a challenge, there was not one a specific policy issue discussed at a high frequency. The policies and regulations farmers mentioned as challenging include: the farm bill (11%), zoning and agritourism laws (11%), immigration (8%), food safety (8%),
payroll taxes/workmen’s compensation (6%) and raw milk regulations (4%). More than specific policies or regulations farmers spoke of the challenges of conforming to regulations. Fifteen percent of the participants attributed this to a lack of scale appropriate regulations. Farmers also saw regulation as inhibiting their businesses (15%), expensive (11%), and time consuming and confusing (11%).

**Financial challenges.** Financial challenges included profitability (49%), costs and investment (43%), and accessing capital (40%). Together these financial challenges were an issue for 89% of farms. Becoming profitable was identified as a key challenge for farmers. Thirty-four percent of farmers commented that their prices were too low to cover the full costs of production. Twenty-one percent struggled with the salary the farm affords them and the resulting financial instability, which requires many to take off-farm jobs to cover income and benefits.

Thirty percent of the farmers noted the high costs of production as a challenge, including labor (23%) and inputs (11%). Investments costs (equipment, land, livestock, infrastructure, and perennials) were an issue for 19% of participants. Eleven percent of participants struggled to cover the costs of living, including health care and retirement.

Farmers were challenged to access capital to cover these costs and investments. Eleven percent of farmers discussed lenders perception of small farms interfering with their access to capital. They noted that interest rates are higher for farm businesses (6%) and as a farm they were not able to refinance their homes because of the connection to the farm (6%). Refinancing may have been a larger concern at the time of these
interviews, which were held in early 2013 following the 2007-2009 recession, which provided the general population advantageous refinancing opportunities.

**Quality of life.** While many small farmers described being drawn to the lifestyle of farming, they also described many lifestyle challenges. Farming is an all-consuming occupation that leaves many farmers low on time and energy; in fact 26% reported time and energy as a challenge. Thirteen percent associated their time constraints with their need to have an off-farm job, as the farmer below describes.

> Time is a big barrier. It is incredibly time consuming so if you wanted an off farm job to get benefits or something. Then you have to cut corners on your farming somehow. So you almost have to choose to live a life of poverty if you are going to be a farmer. (Farmer Participant #15)

Many farmers described sacrifices they have made because of time constraints, including missing family events, not being present for their children, inability to leave the farm, and not taking vacations. These sacrifices combined with the stress of the occupation can be taxing on farmers’ mental and physical health.

Seventeen percent of farmers discussed mental and physical health challenges. Farmers spoke of the physical demands of their businesses as both a positive and negative. Many farmers noted the physical risks of working on farms including the hazards of working with machinery and the years of wear and tear on the body. Farmers discussed worrying how they will continue the farm as they age and are not able to complete necessary tasks as efficiently.

**Land access.** Access to land is a complex challenge for farmers, closely associated with farmers’ access to capital. “With the income we have it would never
warrant being able to purchase that land and afford to pay it off. So money is definitely a barrier” (Farmer Participant #15). Farmers discussed lenders lack of willingness to lend to small farmers. “The lenders don’t want to know you are going to be farming. We called me a housewife; we didn’t even mention the business. They really don’t like to lend on small parcels for small farmers” (Farmer Participant #9).

Aside from accessing the capital to purchase land, 9% of farmers mentioned the increasing demand and price of land as limiting their access. Nine percent of farmers also noted the availability of land that fits their needs regarding size, soil class, and water rights as a hindrance.

Many farmers dealing with the challenge of land access lease land as a way to limit financial risk and reduce overhead. However, leasing land has its own set of challenges. Farmers noted that leasing can result in a lack of permanence, limiting farmers access to long-term benefits such as soil building and the efficiency of developed systems.

**Acquiring resources and knowledge.** The steep learning curve and acquiring the needed components of a farm business was described as an obstacle for farmers. This challenge overlaps with the challenges of land access and investment costs, but focuses on the process of acquiring and accessing the necessary components and knowledge to operate a farm business. In the start-up years or when expanding, farmers must gain access to land, equipment, and infrastructure and balance these costs with uncertain income; nineteen percent of participants noted struggling with this acquisition process. Nineteen percent of participants also noted struggling with the learning curve.
“Part of the limitation is I am trying to be diversified at a small scale and there is a huge amount to learn. So one barrier is my ability to assimilate information. There are a lot of educational opportunities, way too many in fact. I could never go to all of them. … I could be a full time student of farming” (Farmer Participant #35).

Farmers struggling with this obstacle, such as the one quoted below, described their envy for multi-generation farmers who gained their knowledge in childhood and inherited resources.

The generational gap—that we did not grow up on farms and we have to learn everything that would have been second nature if we had grown up on a farm. Land access is a big one too. Our parents didn’t farm so we were not passed down farmland so we did not have a leg up that way. We know some farmers that their parents farmed and they inherited the farm and a bunch of equipment and they learned a lot growing up, so they are a lot further ahead. (Farmer Participant #45)

A Framework to Describe the Challenges Facing Small Farmers

Farmers’ described their challenges at length, moving from one to the next highlighting their connected nature. This finding is supported by connections Hendrickson (2005) found between labor and farmers’ quality of life, and production efficiency and finances. The data in this study show that small farmers’ challenges interact on many levels creating a web of influence that surrounds the farm business. Farmers’ descriptions showed the constant negotiation required to develop a farm that balances the interconnected challenges facing small farmers. This study sought to develop a framework to improve understanding of the connected nature of the challenges facing farmers. An initial framework was presented to the focus groups and insights from the farm and Small Farms Program faculty participants furthered the development of the framework.
Farmers in this study spoke of internal challenges, those under the farmers’ influence, and external challenges, those over which the farmer has no control. Doorman (1991) used a similar framework to describe the factors that influence farmers’ decision-making finding that factors could be categorized as internal and external. This framework proved to be useful to describe the interconnected challenges facing small farmers. Internally farmers struggle to balance time, the labor the system requires, and financial constraints to create a profitable farm system and a reasonable quality of life. At the same time, the social context in which the farm system operates poses external challenges, which constrains the farm system. Since farmers cannot affect these challenges directly, they mitigate them by selecting a farm system that fits within the confines. This restricts the farmers’ ability to negotiate their farm system and scale leading to or exacerbating internal struggles.

* Negotiating the farm system and scale. Farmers spoke about the difficulty of finding a functional and profitable scale for their operation, specifically in relation to labor. This supports Hendrickson’s (2005) finding that farmers struggle to find a profitable system and scale that balances quality of life, labor, and scale-appropriate technology. Figure 4.7 models the primary variables farmers balance in the negotiation of the farm system and scale. The variables are the total work the given system demands, the time the farm household has available for the system, and the finances of the system. This negotiation reemerges each time the farm expands or reorganizes changing one of these elements.
Figure 4.7. Negotiating a functional farm system.

Farmers described a critical threshold at the point where the amount of work increases beyond what the farm household can provide.

In talking about our situation with other small farmers nearby—they are all coming to a really similar conclusion. Which is it is enough money if I do not have to pay someone else, but it is too much work to not pay someone else—to a point that it is not fun. To a point that the work is too much and the income is too low and all your money is going to operating expenses and employees. … Scaling our business in order to meet the needs of our customers is going to be tricky. (Farmer Participant #9)

Hiring labor is a difficult stage for small farms. Hired labor is one of the largest expenses farmers face, including the cost of wages, workers’ compensation and payroll taxes.

When farmers hire labor, efficiency becomes more critical since labor tends to be paid on an hourly basis. Farmers may not have the capital to invest in scale-appropriate
technology and infrastructure critical to efficiency, however not making the investment results in higher labor cost. This hurdle keeps many farms at a scale at which the farm household can provide the labor needed. Additionally, hiring labor changes the farmer’s role on the farm to that of a manager, increasing the farmer’s workload and many times requiring them to learn a new skill.

Farmers are challenged by the amount of time required to operate their businesses. Frequently this challenge is exacerbated by farmers’ reliance on off-farm work to access benefits and household income. This limits the farmer’s time on the farm, which can lead to more hired labor and higher costs, farmers not having the time or energy to achieve their desired quality of life, or missed opportunities within the farm business. In the quote below a participant described how the interaction of time, off-farm jobs, and profits on their farm has caused them to miss opportunities.

Really time, because I have all kind of ideas I want to do. I just don’t have the time to do them by myself. I don’t have the money to hire someone else to do them. I have to save up and wait. If you have enough money and can spare some time to do the next project or buy the next piece of equipment. Time is an issue partly because I have to have outside jobs. (Farmer Participant #10)

While time is an important challenge for farmers, low financial returns are strongly intertwined with small farmers time constraints. Higher profits could limit farmers’ reliance on off-farm jobs, increasing the time they could dedicate to the farm business. Higher profits could also allow farmers to invest in labor, equipment, and infrastructure to create efficiencies, which could then decrease the time and energy the job requires, improving quality of life. “[R]eally if you increase profitability you have more flexibility and more choices. More time off if that is what you want, just more
options, because you can’t make more time and there is always more work” (Farmer Participant #1, quote from focus group).

**Social context.** This study theorizes that the social context within which the farm operates, described by Gillespie and Johnson (2010), houses external challenges that constrain the farm system. For instance, land access emerged as an external challenge many farmers face. Researchers have related the challenges of land access to an increased demand for land and the corresponding increase in price of land in the United States (Freegood & Dempsey, 2014; Ruhf, 2013). In this way the external challenge of land access is fixed in the farms social context. Via these external challenges the social context affects the farm businesses. For instance, some farmers are limited to leasing land which can restrict the farmers willingness to plant perennials. In other scenarios the farmer may resort to purchasing land farther away from markets than ideal, thus increasing their workload. Figure 4.8 models the farm system within a social context with external challenges that constrain the farm system negotiation.
Farmers described how external challenges can contribute to other challenges. *Society’s knowledge and expectations* emerged as a challenge in this study, with 28% of farmer participants identifying it as a challenge (see Table 4.3). Participants spoke of how society’s lack of knowledge of agriculture contributes to a number of challenges. For instance, lenders’ lack of knowledge of small farms limits their willingness to lend to farmers. In the same way, policy makers’ lack of knowledge of small farms results in regulations that are not scale appropriate. Another example is while policy and regulations directly effect farmers’ production practice, they also influence consumers expectations through subsidies, as the farmer describes below.
I think one thing that holds us back from charging the real price of food is a lot of explicit and implicit subsidies. Ignoring certain detrimental practices and the effect of those detrimental practices on the price of food and paying for them in other ways and just straight out subsidies in corn and soy and commodities. Vegetables are not directly subsidized, but they are indirectly subsidized in terms of allowing practices that will create long-term costs to the environment and to society. Corn and soy and commodity crops are directly subsidized and those direct subsidies also push down the price of food in general. The outcome is whether people choose vegetables or a cookie. (Farmer Participant #65)

*Beginning and Experienced Farmers’ Challenges*

This study asked if beginning and experienced farmers face different challenges. The total study population included 53 farms: 30 beginning farms and 23 experienced farms. Figure 4.9 shows the percent of farmers in each group that identified each challenge. While each challenge was identified by both beginning and experienced farmers, the percent of farmers identifying the challenge varies with the level of experience.
Beginning farmers identified internal challenges at a greater rate than experienced farmers, including:

1. Acquiring resources and knowledge (44% more beginning farmers)
2. Diversification, expansion, and scale (39% more beginning farmers)
3. Costs and investments (22% more beginning farmers)
4. Profitability (18% more beginning farmers)
5. Quality of life (17% more beginning farmers)
As described above, farmers are challenged to negotiate their farm system. It could be said that beginning farmers are more challenged by this process—especially start up issues such as acquiring resources and knowledge—than experienced farmers. Experienced farmers have already navigated the learning curve, acquired many of the components of the farm, and struggled with scale and expansion. However, these issues may return if farms diversify or expand.

Experienced farmers identified challenges related to policy and regulations (78% of experienced farmers versus only 37% of beginning farmers) and labor (35% of experienced farmers versus only 17% of beginning farmers) at higher rates. Focus groups explained that beginning farmers likely have other more pressing concerns as they develop their farms. Additionally, in the start-up years many farmers do not hire outside labor and likely have not directly confronted a regulation that has seriously challenged them.

**Discussion**

The conceptual framework developed in this study describes the interaction of internal and external challenges facing small direct marketing farms in Oregon’s Willamette Valley. Previous studies have noted specific links between farm challenges (Hendrickson, 2005; Hinrichs, 2000), described the farm as existing within a larger social context (Gillespie & Johnson, 2010), and created framework to model the interaction of internal and external factors on farm decision-making (Doorman, 1991). This study merged Doorman’s (1991) framework of internal and external factors and Gillespie and
Johnson’s (2010) concept of the farm existing within a larger social context to describe the interaction of the challenges small farmers face.

This conceptual framework has implications for farmers, educators, and policy makers. Gillespie and Johnson (2010) recommended farms enhance their business planning to include an examination of their social context and personal assets, looking for niches and strengths in both. This study encourages the addition of challenges to this examination; identifying possible challenges external in the larger social context and internally in the farm system. Examining potential challenges can help a farmer minimize risk by developing their business to avoid challenges. Policy makers and farm advocates have a similar opportunity to improve policy and regulations by recognizing the connected nature of challenges facing small farmers and local food systems. This adds to Soma and Wakefield’s (2011) recommendation that policy makers consider the connection of food system issues and that the development of a policy might not successfully address an issue if other challenges continue to persist. For example Clark et al. (2014) recommended that land use policies for farmland preservation consider farm viability, including economic development and market-based policies within land use policies to help farmers adapt to new markets.

This study highlights a need for improved understanding and inclusion of small direct marketing farms in the policy and regulation process. As noted previously, agriculture is no longer central to the majority of Americans’ lives (Gillespie & Johnson, 2010), which can lead to unfavorable policies, regulations, and consumer expectations. Studies have shown that participatory policymaking and research improves the social
capital between farmers and their community (Clark et al., 2014; Lovell, 2010). Farmer participation is a key method to improve policy and regulations, but it is necessary that the participants represent the diversity of farm operations. This study confirms previous findings that policy and regulations in many cases are not scale appropriate for small direct marketing farms (Clark et al., 2010). Small direct marketing farms are innovative and complex entities that operate at multiple levels in the food system. In order to encourage this innovation we need to ensure small farms are considered in the policy and regulation process.

Further research is needed to understand the complex nature of challenges facing small farmers. The challenges that emerged in this study provide the basis for other studies that may expand the findings. Studies are needed to compare these findings in other regions, understand which challenges have the greatest effect on small farmers, and investigate if challenges occur at different rates among specific small farm populations.

**Conclusion**

This qualitative, highly participatory study provided small farmers operating direct marketing farms in Oregon’s Willamette Valley the opportunity to describe the challenges they face. Previous studies have not focused on small farms and few have used a participatory approach, allowing the farmers’ perspective to drive the research. In grounding this research in the farmers’ perspective this study confirms many of the challenges previously described in the literature and revealed internal challenges that have not been well researched. The farmers in this study struggle to find the proper scale and diversity for their farm businesses, with the process of acquiring resources and
knowledge, and with quality of life. Findings from Hendrickson’s (2005) (the only study reviewed that included highly participatory methods and focused on farm businesses) confirm these internal challenges.

This study investigates whether beginning and experienced farmers face different challenges. Previous studies investigating challenges facing beginning farmer operated farms from the perspective that beginning farmers’ challenges are unique. In this study beginning and experienced farmers describe the same challenges, however the rate at which the populations identify challenges varies with years in operation. Beginning farmers describe land access and access to capital at higher rates than experienced farmers. Many experienced farmers have overcome these challenges, however some experienced farmers describe these challenges reemerging in periods of expansion or when capital is needed for improvements. Beginning farmers are more challenged by internal challenges, specifically finding the proper scale and diversity for their farm businesses and the process of acquiring resources and knowledge.

Finally, this study shows that small direct marketing farms experience internal and external challenges that form a web of influence shaping the farm business. Internal challenges involve balancing labor, time, and finances to develop a functioning and profitable farm system. External challenges are a part of the social context within which the farm operates. These challenges constrain the farm system, limiting the farmers’ ability to navigate internal challenges.
Chapter 5: Conclusion

Even though we obviously must answer our questions about farming with all the intellectual power we have, we must not fail to answer them also with affection. (Berry, 2002, p. 24)

This qualitative study investigated the success and challenges of small farmers operating direct marketing farm business in Oregon’s Willamette Valley. Through highly participatory methods this study provides small farmers with the opportunity to describe their success and challenges, thus improving our understanding of these innovative businesses. The data show that the framework for small farm success is composed of four dimensions: 1) Social, 2) Operational, 3) Quality of life, and 4) Financial. Farmers consistently discuss the holistic nature of their concept of success, while reiterating the necessity for and struggle with financial success. Small farmers face internal and external challenges, navigating both through the negotiation of the farm system and scale. The findings confirm challenges discussed in previous literature and reveal internal challenges that have not been well researched including attaining the proper scale and diversity, acquiring resources and knowledge, and quality of life. While beginning and experienced farmers described the same challenges, beginning farmers struggle more with internal challenges, land access, and access to capital, while experienced farmers find policy and regulation more challenging. This study has implications for research and education and
small farm planning, and demonstrates a need for improved understanding of small farms and innovative solutions for small farmers challenges.

This study has implications for development of extension education programs and applied research. The four dimensions of success and the data on challenges provide a framework for targeted education regarding small farm planning. Education on small farm development should address the challenges farmers described in this study and assist farmers in developing the skills, knowledge, and connections to achieve success in each dimensions. Table 5.1 shows a few of the educational topics in each dimension of success that could be included in a holistic small farm education course. Further research can improve understanding of what education methods and planning tools are most effective for these topics and their integrated nature, as well as at what stage of the farm’s development these topics should be addressed for long-term viability.

Table 5.1

*Education Topics for Each Dimension of Small Farm Success*

<table>
<thead>
<tr>
<th>Dimension of Success</th>
<th>Topics for Small Farm Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>• Identify and connect with campaigns of interest</td>
</tr>
<tr>
<td></td>
<td>• Leadership, organizing, and teaching skills</td>
</tr>
<tr>
<td></td>
<td>• Involvement in policy</td>
</tr>
<tr>
<td>Operational</td>
<td>• Farming craft and methods</td>
</tr>
<tr>
<td></td>
<td>• Marketing skills</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>• Family business dynamics</td>
</tr>
<tr>
<td></td>
<td>• Goal setting</td>
</tr>
<tr>
<td>Financial</td>
<td>• Farm profitability</td>
</tr>
<tr>
<td></td>
<td>• Production efficiency</td>
</tr>
<tr>
<td></td>
<td>• Accounting systems</td>
</tr>
<tr>
<td></td>
<td>• Market channel and product assessment</td>
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</tbody>
</table>
The framework developed here to describe the success of and challenges facing small farmers can improve small farm planning. Incorporating these findings into farmer education will assist farmers in planning for challenges and success. An improved understanding of internal and external challenges will help small farmers develop their businesses to manage risk from the outset. Farmers could design the farm system with insights to key challenges in their specific social context and an understanding of the challenge of negotiating the farm system to balance labor, time, and finances. Noting the multiple dimensions of success and incorporating them into small farmers business plan can address the common issue of burnout; helping farmers prioritize their personal satisfaction in the development of the farm business.

Reversing society’s disconnect from small farms could improve the vitality of small farms by relieving some of small farmers’ top challenges. The lack of knowledge about small farms plays an important role in small farmers primary external challenges: policy and regulations and access to capital. Farmers describe policy and regulations as expensive, time-consuming, inhibiting their businesses, and not scale-appropriate. Improved understanding and a participatory process could assist in making policies and regulations more appropriate for small farms. The misconception of small farms as non-commercial entities and a general lack of understanding of these businesses leave many lenders unwilling to lend to small farmers. Findings regarding small farm perception of success dispel misconceptions of small direct marketing farm businesses as non-commercial, showing small farms value financial success.
The framework for small farmers’ success and challenges that emerged in this study describe the holistic and innovative nature of small farm, implicating the need for innovative solutions to address small farmers challenges. Small farmers are employing alternative financing, land access models, and marketing. Small farms utilize their community networks and personal savings, limit household expenses, and take on off-farm jobs in order to make their farm business function. In order to address the variety of challenges these innovative entrepreneurs face, society needs to develop innovative solutions, questioning current norms. For instance, Ruhf (2014) stated that norms around property ownership and purchasing need to be reevaluated to truly address small farmers’ land access challenges. Participatory research and inclusion of small direct marketing farms in the development of policy and regulations are key methods in developing innovative solutions and functional policies and regulations (Clark et al., 2014; Lovell, 2010).
References Cited


Appendices
Appendix A: Detailed Methods

This appendix outlines the methods used in this study in greater detail than the manuscript format allowed, including descriptions and references for specific theories and approaches utilized in the study. This appendix begins by outlining the use of multiple methods, the role of the researcher and OSU Small Farms Program, the use of farmer advisors, and the human subjects protocol. The next section, participant selection, describes the procedure followed to purposively select small farms participants from direct marketing farms operating in the Willamette Valley. Next, the data collection section describes the use of semi-structured interviews, focus groups, and participant selection. The data management and analysis section discusses the use of grounded theory and QSR International’s NVivo 10 software. The appendix ends with a discussion of study limitations.

Multiple Methods

This study utilized multiple methods combining semi-structured interviews, focus groups, participant observation, and farmer advisors—two farmers acting as key informants and advisors—as illustrated in Figure 1. Multiple methods triangulate and complement findings. Triangulation occurs when multiple methods produce a common result, increasing the validity of the findings (Greene et al., 1989). When the data
produced from one method is expanded on or substantiated by findings from another method, that data have complemented the original data (Greene et al., 1989).

Figure 1. Interaction of multiple methods.

In this study, the data from 53 semi-structured interviews were analyzed and findings presented to three focus groups composed of a sub-set of the original study participants and faculty and staff of the OSU Small Farms Program. The focus groups served to verify, situate, and expand interview findings, thus enhancing interpretation of the results (Bernard, 2000). Additionally, this study utilized participant observation to ground and expand the findings.
The Role of the Researcher

My experience within the Willamette Valley small farm community and my affiliation with the OSU Small Farms Program created rapport and provided multiple opportunities for participant observation. I have been involved in Oregon’s Willamette Valley small farm community since 2007. My roles within the community have included: farm worker, research assistant, community organizer, and educator. I have been both an active participant, performing the same activities as the study population, and as a moderate participation, a researcher balancing my role inside and outside the community (Bernard, 2000; Spradley, 1980).

As an active participant, I worked as a farm apprentice and a farmers’ market vendor. In 2007 I spent a year involved in all aspects of farm production on a diversified vegetable operation. In 2013 and 2014, during this research project, I held a position as a farmers’ market vendor for a diversified vegetable farm. Working as a farmers’ market vendor provided me with valuable interactions with farmers and customers, as well as an opportunity to observe the interactions between farmers and their customers. These roles—as farmer and vendor—provided an insider’s perspective of the daily activities of a farmer. In working alongside farmers I improved my understanding of farm businesses and developed my reputation within the farm community.

From 2008 to 2014, I worked with farmers in professional roles with the OSU Small Farms Program. In my first position as a research assistant in the north Willamette Valley, I worked directly with farmers involved in on-farm research projects. I also organized educational events oriented to the small farm community including assisting in
the development of *Growing Farms*, OSU’s beginning farmer course. I founded and coordinated *Women in Agriculture*, a women farmer network in the north Willamette Valley. From 2012 to 2014 I was a Graduate Research Assistant. My responsibilities beyond this research included assisting in the development of an online beginning farmer course. These professional positions provided me with years of interaction with farmers to foster my rapport and advance my understanding of small farms.

**The Role of the Oregon State University Small Farms Program**

This research project’s affiliation with the OSU Small Farms Program elevated the standing of the project within the small farm community. Dr. Garry Stephenson, the advisor on this thesis, founded the OSU Small Farms Program in 1997. The organization conducts the annual Small Farms Conference with more than 800 attendees and a wide array of educational and research projects throughout the state. Association with the OSU Small Farms Program improved access to and trust of study participants during interviews and focus groups.

This study utilized the faculty of the OSU Small Farms Program in the participant selection process. The OSU Small Farms Program in the Willamette Valley divides the valley into two sub-regions: north and south Willamette Valley. At the time of this study the primary faculty members had been with the OSU Small Farms Program for seven years. Additionally, they each had professional experience with the study population prior to joining the OSU Small Farms Program. The OSU Small Farms Program faculty were able to identify farms that fit the selection criteria while balancing: gender, age,
years of experience, scale, location, and production type. Figure 2 illustrates the role of the OSU Small Farms Program in this study.

Figure 2. Interaction of multiple methods and the role of the Oregon State University Small Farms Program

The Farmer Advisors

Two farmers from the study population served as advisors and key informants for this study. Key informants are members of the study population who understand the study objectives and can speak openly to the researcher (Bernard, 2000). I had previous professional relationships with the farmers selected as advisors. Additionally, the farmer advisors are organizers within their community and therefore are accustomed to speaking for
their community. They assisted in the development of the questionnaire, participated in the interviews and the focus groups, and provided valuable insights. In this way, the advisors were involved in the development, investigation, and interpretation.

**Human Subjects Protocol**

Participation in this study was voluntary. Prior to conducting interviews, the study was explained to the participants and their questions regarding the study were answered. Before continuing with the interviews, I received verbal consent from each study participant. The focus groups followed a similar procedure. Interview and focus group participants provided information anonymously and protocols were followed to protect their identities. This study was conducted with approval from the Oregon State University Institutional Review Board to ensure the rights and welfare of the human subjects.

**Participant Selection**

This study utilized purposive sampling, a form of non-probability sampling described by Bernard (2000), to select the farms included in this study. In purposive sampling, participant selection criteria are developed based on the purpose of the study (Bernard, 2000). Small farms are not formally organized and thus cannot be reliably sampled by probability sampling methods. Since, this study focused on a specific set of small farms—small farm businesses participating in the local food systems in the Willamette Valley of Oregon—purposive sampling allowed the selection of study participants fitting this profile.
To select farms fitting this profile, selection criteria defined the region, farm scale, marketing method, farm products, and businesses designation of farmer participants.

Table 1 outlines the selection criteria and defines each limitation.

**Table 1**

*Selection Criteria*

<table>
<thead>
<tr>
<th>Selection Criteria</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>Farm is located in the Willamette Valley of Oregon</td>
</tr>
<tr>
<td>Farm Scale</td>
<td>Identified by four OSU Small Farms Program Extension faculty and self-identified as a small farm</td>
</tr>
<tr>
<td>Marketing Method</td>
<td>Utilize direct-to-consumer, direct-to-retail, or direct-to-institution marketing</td>
</tr>
<tr>
<td>Farm Product</td>
<td>Primary product is a product utilized in the local food system, excluding vineyards</td>
</tr>
<tr>
<td>Business</td>
<td>Farm files income taxes for the business</td>
</tr>
</tbody>
</table>

The study’s geographic extent was limited to the natural boundary of the Willamette Valley. The region was chosen because of its importance as an agriculture region and my prior professional experience with the Willamette Valley small farm community. The criteria limited farm products and marketing methods to select farms selling their primary farm product in the local food system. Eligible farms products included crops and livestock grown for human consumption and products used directly in the production of food, such as vegetable seed. Wine producers were not included since wine is not considered a food product. The criteria required farms use direct-to-consumer, direct-to-retail, or direct-to-institution marketing. Farms did not have to use direct marketing exclusively. In this way, direct marketing of food products was used as a proxy for local food, as modeled in previous research (Martinez et al., 2010). This study did not use the USDA definition of small farms to avoid limiting the economic success of the
study population. Instead the OSU Small Farms Program faculty identified small farms meeting the criteria in the region. Additionally, the farmers had to self-identify as a small farm to participate in the study. Finally, to ensure the farms were operating as businesses and could not be classified as *hobby farms*, they had to file taxes as a business in order to participate.

The participant selection process included two levels of verification. First, four OSU Small Farms Program faculty identified farms in their region that fit the criteria. Second, farm participants answered the following questions to confirm their eligibility.

1. Do you consider your farm a small farm?
2. Do you utilize direct marketing?
3. What do you produce on your farm?
4. What county is your farm located in?
5. Does the farm file taxes as a business?

At the outset of the study, the selection criteria were explained to the OSU Small Farms Program faculty working in the north and south Willamette Valley. The faculty identified 82 farms that fit the selection criteria and represented the diversity of farms in the area. Seven farms were eliminated because contact information could not be located or the farm had been dissolved. Of the remaining 75 farms, 72 farms received an introductory letter, describing the study and requesting an interview in the US mail or via email if a physical address was not available. Three farms were contacted by telephone because other contact information was not available. After the initial contact explaining the study, the farmers were contacted by email and telephone correspondence to schedule interviews.
As interviews accumulated, purposive sampling maintained a geographically and demographically balanced pool of respondents. Repeated telephone and email inquiries were made to underrepresented groups. Following this procedure, 59 farmers were interviewed. Fifteen farms did not respond to multiple contacts or an appropriate time for the interview could not be found during the study period. One farmer declined to participate due to family illness. Of the 59 interviews, two farms did not consider their farms ‘small’ and four did not file taxes for the business. These farms were eliminated from the study, resulting in a final study population of 53 farms.

Data Collection

As described previously, semi-structured interviews, focus groups, and participant observation were used in unison to address the research question (See Figure 1). The data were collected via fifty-three semi-structured interviews with small farmers conducted between December 2012 and June 2013. In 2014, three focus groups composed of a subset of study participants, farmer advisors, and OSU Small Farms Program Faculty validated and enhanced initial findings. Throughout the study, participant observation contributed to the researcher’s understanding and reputation. The following section describes these methods of data collection and outlined the procedure.

Semi-Structured Interviews

Semi-structured interviews were selected as the key research method because of their combination of consistency and flexibility. Bernard (2000) described interview methods as existing on a continuum of the amount of control an interviewer possesses in
the interaction. Semi-structured interviews fall in the middle of the continuum. Using Bernard’s description of the procedure for semi-structured interviews, this study followed a questionnaire to ensure questions were addressed equally and within the same context in each interview. Within that structure, the interviewer was able to clarify responses and follow leads that arose in the research. Bernard noted that the flexibility to ask clarifying questions creates a less formal atmosphere, which can increase participant comfort (Bernard, 2000).

Interviews were conducted by telephone to accommodate the broad geographic range of participants and the study timeline. For the convenience of the farmers, two interviews were administered in-person: one was held at a farmers’ market where the farmer was a vendor and the other at the farmer’s place of work. Interviews ranged from 30 to 80 minutes. Notes were recorded during the interviews in an attempt to capture the responses as close to verbatim as possible.

The questionnaire, outlined in Table 2 and displayed in full in Appendix B, was composed of two sections: demographics and farm characteristics, and the farmers’ interpretation of their farm’s success and challenges. Interviews opened with farmers demographic and farm characteristics, these opening questions provided important data and allowed the farmer a chance to become comfortable with the interview experience. The guide was tested in preliminary interviews with two farmers serving as advisors to the study. After testing, wording was clarified and demographic questions that the farmers identified as important distinctions in their cohort were added.
This study interpreted the responses to three questions: *what criteria do you use to determine your farm’s success?*, *what role do finances play in your concept of success?*, and *what challenges do you face in operating your farm business?* The questions regarding motivations, lifestyle, community, and environment were included to encourage farmers to think about those aspects, but in retrospect were not necessary as many farmers described those elements without prompting.

**Focus Groups**

Focus groups are a proven method to validate, interpret, and enhance survey or interview findings (Bernard, 2000). Morgan (1996) noted that the strength of focus groups is participant interaction; researchers gain understanding of complex ideas through the participants’ desire to explain their views to their peers. In this study,
preliminary findings from the interviews were presented and through directed
conversation the group substantiated and contextualized the findings.

The OSU Small Farms Program focus group was held in June 2014 with eight
faculty members. Two farmer focus groups were held in October 2014 with a total of
eight farmers that had participated in the study. These participants were selected to ensure
even representation of the study population. The farmer advisors for the project also
participated in these focus groups. In order to capture the geographic diversity of the
study population, one farmer focus group was held in the north Willamette Valley and the
other met in the south Willamette Valley.

Data Management and Analysis

Data were analyzed using Glaser and Strauss’s (1967) grounded theory technique.
Following grounded theory methods, the qualitative data were interpreted using inductive
coding, coding that allows topics to emerge from the data. Coding is a rigorous data
analysis procedure that conceptualizes data by breaking them down into discrete units
and organizing it into categories—or codes—named to represent the specific
phenomenon (Strauss & Corbin, 1990). According to Richards (2005), through this
process themes emerge from the data, ultimately leading to theories.

In this study, the data—open-ended interview responses—were broken down into
distinct success criteria and challenges. These success criteria and challenges were
assigned codes and as similar success criteria or challenges appeared in the data they
were added to the code. As a code was populated, a clearer sense of it and its relationship
to other codes developed (Bernard, 2000). As the codes became clearer, their names and the data included in that code were adjusted to ensure the data and the code name properly represented the emerging theme. This analysis allowed common terms and descriptions in the data to be conceptualized as themes or categories, which then could be analyzed to determine what percent of participants had described the theme.

The primary researcher completed all analysis. QSR International’s NVivo 10 qualitative data analysis software assisted in the analysis. Extensive notes were taken during the interviews. The data were stored according to ID numbers to protect farmer identities. As illustrated in Figure 3, interviews were imported into NVivo as sources and the demographic and farm characteristic data were imported as attributes. NVivo linked each individual source, in this case farmer interview, with their corresponding attributes. In NVivo the data were coded by creating nodes to represent the topics emerging from the data stored in the sources. Nodes can be thought of as computer documents that store all the data on the topic. The nodes were sorted into hierarchical categories, much like a computer filing system (Bazeley, 2007). NVivo’s query functions were used to explore relationships between nodes as well as between nodes and attributes.
Through these functions NVivo assisted in the management and visualization of data. However, it is important to note that the software does not replace the analysis technique or the researcher. Rather, the software was used as a sorting, linking, and data storage tool in the analytical process (Bazeley, 2007).

**Study Limitations**

The data gathered for this study are largely qualitative and the sample size was not adequate for detailed statistical analysis. Therefore, statistics were intentionally confined to the frequency of challenges farmers face.

Figure 3. Data analysis using QSR International’s NVivo 10 qualitative analysis software.
The study population of small direct-marketing farmers is a diverse, busy, and many times private group of individuals. Additionally, since small farms are not organized into a formal group, comprehensive and probability sampling is not plausible. Since purposive sampling was used, the findings of this study cannot be applied beyond the study population. However, while the specific context was unique, there are many small farms throughout the U.S. with shared traits, similar ideology, and a common national social context. These findings may serve as a case study to increase the understanding of small farms and assist those who work with small farmers throughout the nation in their support of small farms.

On many accounts my role within and knowledge of the study population were assets to this research, but they also created limitations. Bernard (2000) warns that inside knowledge can limit the researcher’s objectivity and make it more difficult to view theories. Bernard states the importance of balancing the benefits of participant observation, with the ability to view data from the perspective of a newcomer.
Appendix B: Semi-structured Interview Questionnaire

Respondent ID:

Date:

Sex:

Age:

County:

**Oral Consent**

1. Do you understand what participation entails and consent to participate in this study?

**Farm Details**

2. Do you market your products directly to consumers, grocery stores, or restaurants?

3. Do you file taxes for the farm as a business?

4. When did you start your farm business?

5. When did you start farming?

6. What do you produce on your farm?

7. How many acres do you farm?

8. Do you live on the farm?

9. Do you own or lease/rent the land?

10. Did you graduate from OSUs Growing Farms program?

11. Do you consider your farm a small farm?

12. What are the average annual gross sales for your farm business?
Success

13. Do you consider your farm successful?

14. What criteria do you use to determine your farm’s success?

15. Many times success for businesses is defined solely in economic terms. What role do finances play in your concept of success?

16. What motivates you to own your farm business?

17. What positive or negative affects does the farm business have on you, your family, and the way you live that other occupations would not?
   • Do these impacts affect your success? i.e. Are lifestyle and/or personal satisfaction part of your definition of success?

18. What relationship does your farm have with the community?
   • What role does this play in your concept of success?

19. What impact does your farm have on the environment?
   • What role does this play in this concept of success?

Challenges

20. What challenges do you face in operating your farm business?