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An Investigation of the Marketing Practices of Local Food Businesses in Southwestern Ontario

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Abstract

This thesis presents research from two interrelated studies examining the marketing practices of local food businesses in Southwestern Ontario. Focus groups were held with food system stakeholders to examine their attitudes and insights toward developing new technologies (i.e., smartphone and web-based tools) to promote local food. A survey of direct-market farmers sought to uncover their marketing practices and motivations. A combination of quantitative and qualitative analysis revealed that although technology already plays a prominent role in marketing, there is a strong desire for more metrics to measure the efficacy of marketing efforts. Further, new technologies should facilitate producer-consumer connections, as this practice plays an important role in marketing local food. This research will help to inform future efforts to 'scale-up' local food systems by examining the preferences and perspectives of local food businesses. This ensures the needs of these businesses are addressed in the pursuit of sustainable, resilient local food systems.

Keywords: local food systems, food marketing, technology, direct-marketing, vendor perspectives, Southwestern Ontario

Co-Authorship Statement

The following thesis contains manuscripts which have been submitted for publication to peer-reviewed journals. Chapter 3 has been written by Mark McGregor with Dr. Richard Sadler, Michael Clark, Malgorzata Milczarek, Dr. Andrew Clark, Dr. Colleen O'Connor, David Corke, and Dr. Jason Gilliland as co-authors. Chapter 4 has been written by Mark McGregor with Dr. Jason Gilliland as co-author. In both manuscripts, McGregor was the principal author and wrote the complete draft of each manuscript. More specifically, in Chapter 3 Gilliland led the study and all co-authors assisted in research design and focus group data collection; however, McGregor performed all data analysis and initial interpretation of findings. In chapter 4, McGregor led the study, designed the survey, and performed all data collection and data analysis. The following citations are provided to indicate the destinations of the manuscripts.

Chapter Three: McGregor, M.D., Sadler, R.C., Clark, M.A.R., Milczarek, M., Clark, A.F., O'Connor, C., Corke, D., Gilliland, J.A. (Submitted). Stakeholder perspectives on the use of smartphone and web technologies to strengthen the local food system of Southwestern Ontario. *Agriculture and Human Values*.

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Chapter 1

1.1 Research Background

Agriculture is an important industry in Ontario, employing over 740,000 individuals and adding nearly $34 billion annually to the economy (Office of the Premier, 2013). Recognizing this, the Ontario government passed the Local Food Act in 2013, which aims to increase the viability of 'local' food production across the province (*Bill 36*, 2013). This program helps encourage local food production and likely stems from the recent proliferation of evidence outlining the potential benefits of local food systems as alternatives to conventional agricultural systems. Academic literature on alternative food system production has underscored its capacity to: improve access to healthy food (Larsen & Gilliland, 2009); bestow local economic benefits (Henneberry, Whitacre, & Agustini, 2008; Hughes, Brown, Miller, & McConnell, 2008; Sadler, Clark, & Gilliland, 2013); increase profits for farmers (Broderick, Wright, & Kristiansen, 2011; Kaufman, 2004); and deliver ecological benefits (MacRae, Cuddeford, Young, & Matsubuchi-Shaw, 2013).

Despite these benefits, the future prospects for small and medium scale farmers in Ontario remain uncertain. Recent decades have seen a continual decline in the total number of farms in Ontario (Ontario Ministry of Agriculture and Food, 2013), with small-scale farmers (i.e., farms with total gross farm receipts valued less than $250,000) increasingly relying on off-farm income sources to continue their farming operation (Alasia & Bollman, 2009). This is especially problematic, as it is these small-to-medium sized farms that are more likely to engage in direct sales (also referred to as direct-market farms) (Thilmany & Watson, 2004; Wolanin, 2013), which are a vital component in many emerging local food systems. As such, developing a better understanding the current practices of direct-market farms may help to increase the viability of small- and medium-scale farms, contributing to the overall growth and strengthening of the local food economy.

Although there is a large sub-section of academic literature devoted to the marketing practices of small-to-medium size enterprises (SMEs), current knowledge surrounding the marketing practices of small-to-medium scale direct-market farms is limited. Existing studies examining marketing among direct-market farms have predominantly focused on consumers'

motivations and experiences (Feagan & Morris, 2009; Hunt, 2007; Pearson et al., 2011; Rosa & Nassivera, 2013; Sadler et al., 2013; Schmit & Gómez, 2011; Smithers, Lamarche, & Joseph, 2008; Thilmany, Bond, & Bond, 2008). The few studies from the farmer's perspective have predominantly focused on their reasons for choosing a direct-marketing retail strategy (Griffin & Frongillo, 2003; Hunt, 2007; Matts, Conner, Fisher, Tyler, & Hamm, 2015; Smithers et al., 2008), but do not identify the specific practices that farmers use to market to consumers. A better understanding of marketing practices is important to help build knowledge of how economic actors build relationships with their consumers and other members of local food networks.

Over the past several decades, economic geographers have turned to relational approaches to better understand how actions are produced through interactions with other actors (Bathelt & Glückler, 2003; Boggs & Rantisi, 2003). More recently, the potential of examining economic actors' practices, also called practice-based research, to better understand the aforementioned relationships has become a promising line of inquiry (Jones & Murphy, 2010; Jones, 2013). Despite there being numerous studies which have used relational approaches to study direct-market farmers (for examples see: Feagan & Henderson, 2009; Feagan, 2007; Hinrichs, 2000; Migliore, Caracciolo, Lombardi, Schifani, & Cembalo, 2014; Murdoch, Marsden, & Banks, 2000; Winter, 2003), few have used a relational practice-based approach.

1.2 Research Objectives

The proposed research examines how local food businesses in Southwestern Ontario (SWO) market their products and interact with consumers and other actors in the local food network. The purpose of the thesis is twofold: to uncover the marketing strategies, practices and perceptions of direct-market farmers in SWO, and to gain a better understanding of how new web-based and mobile technologies can be used to help promote local food businesses and strengthen the local food system in SWO.

The four inter-related objectives of the study are to:

(1) To identify SWO local food vendors' perceptions regarding how technological tools could be used to promote their businesses;

(2) To understand how new technologies can be integrated into existing marketing efforts and initiatives;

(3) To reveal how SWO direct-market farmers prioritize marketing and promotional strategies for their farm business;
(4) To examine if there is a relationship between demographic factors and the adoption of technology-based marketing strategies; and
(5) To uncover SWO direct-market farmer's perceptions about using different strategies to market their business (including different methods perceived benefits).

1.3 Research Summary

The research objectives were addressed using a mixed methods approach. To fulfill the specific objectives, two phases of data collection occurred consecutively. Objectives 1 and 2 were accomplished by conducting focus groups with a wide variety of members of the local food networks of SWO. These focus groups produced qualitative data which was analyzed to broadly identify the perspectives of local food businesses around issues associated with marketing, technology use, and strategies to help strengthen the local food network in SWO. With an understanding of the role that technological tools might play in local food marketing, a case-study approach was used to better understand what specific marketing practices are being used by direct-market farmers in SWO. Objectives 3 and 4 were addressed using a survey methodology. Surveys were electronically distributed to direct-market farmers in thirteen SWO counties to uncover their marketing priorities, as well as business and demographic characteristics. Objective 3 was addressed using a rank-order logit model analysis, objective 4 was examined using Pearson's chi-square analysis, and objective 5 was fulfilled by conducting thematic analysis of responses to open-ended survey questions. Fulfillment of objectives 3, 4, and 5 will offer more focused insights into the specific marketing practices within a sub-set of businesses in the local food movement (i.e. direct-market farmers). The intention of using multiple methods in this research is to increase the flexibility of the research process and generate robust knowledge that is both representative and context specific.

This research attempts to gain a better understanding of marketing practices of local food businesses within the geographic region of SWO. The knowledge that is produced has the potential to contribute to the strengthening of local food policy and increase knowledge of local food producer characteristics, including their marketing strategies. By understanding

existing marketing practices of direct-market farmers, programs may be enacted to limit barriers and encourage effective practices. As Timmons & Wang (2010) note, understanding the factors associated with direct food sales is an important step in making policy changes. Further, knowledge of existing practices may help to inform existing vendors and new farmers alike in devising an effective marketing plan, helping to grow the local food economy in Ontario and beyond. Additionally, this research builds upon and expands current academic literature on marketing practices among direct-market farmers and contributes to theory on the overarching characteristics of producers' interactions with consumers. It also extends the recently developing dialogue regarding the use of practice-based research in economic geography scholarship into the realm of local food systems. With focus now being placed on strategies to 'scale-up' local food systems (Blay-Palmer et al., 2013; Mount, 2012; Mount et al., 2013), understanding how businesses market themselves could contribute to growing the demand for local food and helping to create more resilient, sustainable food systems.

1.4 Outline of Thesis

Following this introduction, chapter 2 provides an overview of literature in the field, focusing primarily on: the current state of agriculture in Ontario, the role alternative food systems and direct-marketing in food production, marketing theory, practice oriented research and relational approaches to economic geography. Chapters 3 and 4 include two case studies focused on the marketing preferences and practices of local food business in SWO. Chapter 3 focuses on the perspectives of key LFS stakeholders in developing technological tools to help strengthen Southwestern Ontario's local food system and Chapter 4 focuses on the specific marketing practices of direct-market farmers. The two chapters are complementary, in that Chapter 3 uncovers vendor perspectives on developing new technologies to market local food businesses and Chapter 4 then digs deeper into what marketing practices and preferences direct-market farmers are currently engaged in. Finally, Chapter 5 concludes the thesis with a summary and discussion of the findings, as well as a discussion of the contributions to research and policy, project limitations, and directions for future research.

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Chapter 2

2 Literature Review

2.1 Introduction

A great deal of popular and academic literature in recent years has elevated awareness of local food systems and, more broadly, the role of agriculture in society. Although, this has generated examinations of the ecological, financial, and social impacts of local food systems, less attention has been given to the practices and aspirations of the businesses and/or people who produce and sell the food. By better understanding existing motivations and practices, more effective support (e.g. policies, subsidies, organizations, education initiatives, etc.) can be delivered to help strengthen local food systems and foster resiliency among direct-market farmers. The following literature review will start with an overview of the current state of agriculture in Ontario, followed by an overview of alternative food production systems. The chapter will also provide a brief overview of previous literature dealing with the direct-marketing of food, as well as a brief synopsis of the academic literature dealing with marketing small-to-medium sized enterprises (SME). Finally, this chapter will provide a brief theoretical overview of recent developments in economic geography concerning relational and practice-oriented research.

2.2 Current State of Agriculture in Ontario

Agriculture in Ontario has increasingly been producing more from less, with 15,570 fewer farms and 22,110 fewer farmers in 2011 than there were in 1996 (Ontario Ministry of Agriculture and Food, 2013). This trend is consistent across Canada, and although there are fewer farms, they are progressively getting larger. In Ontario, the average farm size has increased by 38 acres since 1996 (Ontario Ministry of Agriculture and Food, 2013), with a 6% decline in the number of farms under 240 acres in size (Statistics Canada, 2012). So the growth in size of the average farm is coming at the expense of smaller farmers.

In spite of these declines, some agricultural sectors continue to expand. Commodity crops such as wheat, soybeans, canola, and grain corn have all seen acreage increases since 1996 (Ontario Ministry of Agriculture and Food, 2013). This contrasts with the decreases seen in

land dedicated to fruit, vegetable, and beef production over that same time period (Ontario Ministry of Agriculture and Food, 2013). Interestingly, the crops in decline are those that are typically grown on smaller farms (Uzea & Sparling, 2013). Thus, the changes in Canadian agriculture have disproportionately affected smaller producers.

The increasing size of farms is not the only cause for concern, so too are the large inequalities in the distribution of income among farms. Although they only account for 10.8% of the total number of farms in Ontario, the number of farms with gross farm receipts greater than $500,000 continues to rise, with these farms representing 68.1% of the total gross farm receipts for the province (Statistics Canada, 2015b). This concentration of wealth further highlights the inequalities within the Canadian agriculture system which seems to disproportionately favour large-scale operations.

Further cause for concern for the future of Canadian agriculture is the increasing age of farmers. In Ontario the average farmer was 54.5 years old in 2011, up by 1.9 years from 2006 (Statistics Canada, 2015b). In fact, the proportion of farmers aged 55 and older increased more for small and medium farm operators than those on large farms between 1996 and 2011 (Statistics Canada, 2015a). An aging farming population, coupled with a continuous decline in the number of farms presents a fairly bleak outlook for the fate of agriculture in Canada. This is especially true for those with smaller farms, which has led some farmers to explore alternative avenues to the conventional system.

2.3 Alternative Food Systems

In response to the demographic and economic changes that have been experienced by certain members of the agricultural sector, new alternatives have emerged to help re-invigorate agriculture. Local food is part of the broader conceptual paradigm of alternative food networks. These food networks are characterized by their emphasis on geographically proximate and short production chains (i.e., less processing between farm and fork), and are seen as an ‘alternative’ to the conventional (i.e., industrial) food production system (Sonnino & Marsden, 2006). Alternative food systems also advocate for stronger social bonds between food system actors, with food quality being a principal concern, along with social embeddedness (Sonnino & Marsden, 2006). Hinrichs (2000) notes that the core concepts of embeddedness, namely “social connection, reciprocity and trust” (296), are considered to be

considered defining features of these alternative food systems. The growth of alternative food networks has seen a substantial increase in the number of academic publications examining them. Alternative food systems have been shown to offer ecological (MacRae, Cuddeford, Young, & Matsubuchi-Shaw, 2013), economic (Henneberry, Whitacre, & Agustini, 2008; Hughes, Brown, Miller, & McConnell, 2008; Kaufman, 2004; Sadler, Clark, & Gilliland, 2013), and health (Larsen & Gilliland, 2009) benefits.

2.3.1 Criticisms of Alternative Food Systems

Despite these benefits, several criticisms have also been leveled toward alternative food systems. Born and Purcell (2006) note the pitfalls of 'the local trap', which cautions against ascribing positive value to food production done on the local scale. The authors contend that there is nothing inherently good or bad about geographic scale (i.e., local vs. global), but that such values are given bestowed by a series of actors and networks, including the academics who study them (Born & Purcell, 2006). Indeed, others argue that the popular fixation on spatial indicators for alternative food systems has slowed the overall growth of alternative food networks (Cleveland, Carruth, & Mazaroli, 2015). This highlights the importance of moving beyond simple geographic studies of alternative food systems to more complex multi-dimensional geographies of food.

It is worth noting that scale-based fallacies exist for both conventional and alternative food systems alike. Conventional agricultural systems can be portrayed as another manifestation of globalization, while alternative systems can be associated with localization and defensive localism (Hinrichs, 2003; K. Morgan, Marsden, & Murdoch, 2006). However, reducing these systems to antagonistic binaries is not only incorrect, but also potentially harmful. To move beyond these simplistic binaries, frameworks like Salais and Stoper's (Salais & Storper, 1992) 'worlds of production' model have been adapted for the food system. The 'worlds of food' model is made up of dynamic conventional and alternative 'worlds' that overlap with, and evolve in response to, one another (K. Morgan et al., 2006). This interpretation acknowledges differences between alternative and conventional systems while simultaneously not ignoring the linkages that exist between the two systems.

Another common criticism of alternative food systems is the marginal role local food sales play as a part of the broader food production/distribution system (Brown, Goetz, Ahearn, &

Liang, 2013; Tippins, Rassuli, & Hollander, 2002). Additionally, research has shown that organic farmers who predominately sell to local markets have lower incomes than those who sell minimally in local markets (Park & Lohr, 2010). As many farmers in the local food system are selling directly to consumers, they do not sell at the same scale as other farmers who are part of the conventional agricultural system. In spite of their importance, the arguments concerning the overarching merits of alternative food production systems are beyond the scope of this study. However, the dearth of evidence surrounding the marketing practices of local food vendors, presents an opportunity to better understand ways in which these businesses practices might be modified to improve demand for local food.

2.3.2 Definitions of 'Local Food'

Ironically, while some dispute the merits of local food, alternative food system advocates often have difficulty defining what is 'local'. Although many academics have used the term, there no consensus as to what constitutes local food (Coca-Stefaniak, Parker, & Rees, 2010; Winter, 2003). This lack of agreement makes it difficult not only to create unified local food movements among food system actors (Mount, 2012), but also impacts interactions between consumers and producers (Smithers & Joseph, 2010, Smithers, Lamarche, & Joseph, 2008).

Adding further complexity to understanding what is local, consumers view of what local means can be swayed by how geographically close a specific product can be grown to them (Pearson et al., 2011). Measures of geographic indicators of local are also quite varied. Consumers have a difficult time determining whether local products should come from nearby farms or within their home state (Darby, Batte, Ernst, & Roe, 2008). Interestingly, the Province of Ontario has chosen to define local food as being "produced or harvested in Ontario" (*Bill 36*, 2013), and does not mention anything regarding the production techniques used. However, this definition is primarily intended to enact province-wide legislation, and not necessarily act as a guide for regional food networks.

Eriksen's (2013) review of existing literature found that local food is generally conceived in terms of: the geographic distance from sites of production, the relationships between the actors involved, and the values that various actors ascribe to local food. Some definitions included various combinations of these three themes, and the heterogeneity of definitions may represent the diversity of the actors involved in shaping alternative food systems

(Eriksen, 2013). Indeed, definitions of what constitutes local may vary for producers, intermediaries, and consumers based on their unique vantage points in the food system (Dunne, Chambers, Giombolini, & Schlegel, 2011; Ostrom, 2006; Pearson et al., 2011; Selfa & Qazi, 2005; Wittman, Beckie, & Hergesheimer, 2012). As such, it is important to contextualize definitions of local food that may be unique for different actors and different regional food networks (Eriksen, 2013).

Other authors have argued that having producers and consumers agree to mutual definitions of local should not be of primary concern to local food advocates, and that greater focus should be placed in improving transparency in the interactions between these two groups to help educate consumers to make informed choices (Ostrom, 2006). Indeed, one of the core tenets of many alternative food systems concerns the ways in which foods are produced and improving consumer knowledge about food production (Fonte, 2008; Mount et al., 2013; Wittman et al., 2012). This greater focus on interactions between actors in the food system may be a fear of potential unintended consequences that could arise in the search for a universal definition of what can be considered local food. Assuming one definition as representative may alienate certain sub-populations, especially those lacking a prominent voice (e.g., lower income individuals) (Blake, Mellor, & Crane, 2010). This would be problematic as alternative food systems are seeking to improve upon the conventional industrialized food system, which already marginalizes certain populations (Hinrichs, 2000).

2.4 Direct-marketing of Food

Direct-marketing is a retail strategy in which products are sold from producers to consumers without the use intermediaries (e.g. processors or distributors). In the agricultural context, direct-marketing involves “various producer-consumer path-ways, both old and new, which shorten the conventional food chain, bringing these two groups of actors closer in proximity” (Feagan, 2008, 161). Direct-marketing can be thought of as a collective suite of strategies rather than one single strategy. Low and Vogel (2011) have defined direct-market outlets for farmers as occurring at: farmers markets, community shared agriculture (CSA), and on-farm shops and stalls. However, other authors have included farm-to-school programs (Matts, Conner, Fisher, Tyler, & Hamm, 2015) and pick your own operations (PYO) (Gale, 1997; T. K. Morgan & Alipoe, 2001), among others. As noted in the section above on defining local

food, consumers and producers carry their own sets of practices and beliefs with respect to local food. The two sections that follow will outline each of these groups' views in turn.

2.4.1 Consumer Perspectives and Practices

A large portion of the literature dealing with local food marketing has focused on consumer purchasing preferences. Customers have noted several barriers to accessing local food. Some have observed that there is a lack of information on the location characteristics for vendors (e.g., address, hours, products sold, products in-season) (Ohberg, 2012; Pearson et al., 2011), as well as temporal restrictions on availability of local food (both in terms of hours of operation and seasonal changes in products offered) (Pearson et al., 2011). This is further illustrated by many consumers' belief that conventional grocery stores offer a more convenient shopping experience (Weatherell, Tregear, & Allinson, 2003), facilitating the purchase all of their food items in one location. However, many local food vendors don't feel that they are capable of selling their products in grocery stores due to the traditional food procurement strategies (i.e., buying in large quantities at lower per-unit prices) used by grocery stores (Bloom, 2012). Thus, the 'inconvenience' of local food acts as a barrier for consumers.

Local food is also perceived by customers as being more expensive than food found in conventional grocery stores (Pearson et al., 2011). This sentiment is echoed by local food vendors, with Bloom (2012) noting that among SWO food producers' the largest marketing concern was competing with cheaper import products. Contrary to this notion, local food purchasing venues, such as farmers' markets, have been shown to increase the amount of fresh food available for purchase in disadvantaged areas, and at more affordable prices (Larsen & Gilliland, 2009). Nganje, Hughner, and Patterson (2014) note that unjustified perceptions of food safety risks associated with local food can also affect customer's purchasing decisions. This highlights that greater awareness and education about several aspects of local food could help to increase consumer interest in buying local.

An example of this can be seen in famers' markets, where patrons may not represent the views of the wider consuming public, but there is a strong desire among local patrons to buy local and support local farmers (Feagan & Morris, 2009). This desire may be attributed to consumers' appreciation for the ability to interact with vendors at direct sale locations, more

so than being concerned with the price of products (Feagan & Morris, 2009). Support for local products may extend beyond farmers' markets, as grocery store patrons also have exhibited a willingness to pay a premium for products coming from local farms (Toler, Briggeman, Lusk, & Adams, 2009), hinting a more pervasive consumer desire for fairness and greater equality in all food chains.

Although issues of physical distance from food vendors cannot be easily overcome, effective marketing strategies could address other barriers to local food that arise from misinformation or a lack of knowledge about food production and the local food system.

2.4.2 Vendor Perspectives and Practices

Direct-marketing represents an attractive retail medium, especially for small farms unable to achieve economies of scale, as it can help to increase gross sales (Detre, Mark, Mishra, & Adhikari, 2011). Larger farms, better suited to meet such economies of scale, typically engage with more traditional marketing chains (Corsi, Borsotto, Borri, & Strøm, 2009). Small scale farms most commonly cite the inability to meet product volume requirements and transaction fees as reasons for avoiding intermediary buyers and more 'traditional' marketing chains (Eastwood, Brooker, Hall, & Rhea, 2002). This makes direct-market farming all the more appealing, as there are no contractual obligations with intermediaries to uphold. Direct-marketers are also able to avoid volatility in market prices, reducing price uncertainty (Broderick, Wright, & Kristiansen, 2011; Uematsu & Mishra, 2011).

In a time when the total number of farms has declined, the number of direct-market farms and the value of products sold via direct-marketing has increased, especially among smaller-sized farms (Low & Vogel, 2011; Monson, Mainville, & Kuminoff, 2008; Thilmany & Watson, 2004). Although direct-market retailing for farmers involves a greater time commitment (as they have to grow and sell products) (Bloom, 2012; Tippins et al., 2002), costs may be offset by other non-economic factors, such as the perceived benefit of being able to interact with customers and receive valuable customer feedback regarding products (Broderick et al., 2011; Glowacki-Dudka, Murray, & Isaacs, 2012). These interactions with consumers can also serve as informal educational opportunities, which are seen as an important component of helping to strengthen alternative food systems (Wittman et al., 2012). Direct-marketing is perceived by vendors to be a lower stress enterprise than those

engaged in wholesale selling, as intermediaries can be quite demanding (LeRoux, Schmit, Roth, & Streeter, 2009). Thus the social value of direct-market farming can be quite appealing for farm operators.

In order to make local food vendors more financially viable, customers must be recruited. With respect to farmers' markets, it has been noted that innovative advertising practices are needed to increase promotion and ensure customers are retained over a long period of time (Schmit & Gómez, 2011). Schmit and Gómez (2011) recommended that farmers' markets use strategies that are similar to those currently used by chain grocery stores. This mimicry strategy also applies to farmers, who may find it beneficial to mobilize strategies used in other sectors to enhance their entrepreneurial capacity (McElwee, 2006). However, mirroring marketing techniques used by larger grocery chains can prove difficult. Individual vendors or even farmers' markets do not have access to the same advertising capital or time that is at the disposal of grocery store chains.

To overcome this issue several regions have used directories to showcase what is available locally (Blouin et al., 2009). Since 2002, the Region of Waterloo Health Unit has made a paper (available at various tourism promotional locations) and digital map of participating farmers who wish to display their farms available to the public. Although similar maps have been made throughout SWO and beyond, little analysis of the impact/efficacy of this advertising strategy had not been undertaken, with Waterloo representing one of the few regions to make those results available. Over 50% of farmers surveyed credited the map with an increase in visits, and over 40% credited the map with bringing about an increase in sales (Xuereb, 2005). Perhaps these initiatives which scale up a pool of farmers resources offer more effective marketing than any single farmer can achieve.

The evidence on marketing strategies used by direct-market farmers is scant and increasingly dated. Instead, researchers have focused on the marketing of local foods in the context of farmers' markets (Pearson et al., 2011; Schmit & Gómez, 2011; Weatherell et al., 2003). In a survey of 59 farms in the Waterloo Region, more than 50% of surveyed farmers used word-of-mouth, roadside signs, and/or newspaper advertisements in their marketing strategies, and more than 25% of farmers used pamphlets/flyers or had their own website (Xuereb, 2005). Additionally, over 65% of farmers indicated that roadside signs and word-of mouth were

among their most effective marketing methods (Xuereb, 2005). Although this study informs the breadth of marketing instruments used to connect with consumers, it is limited to a relatively small geographic area. Another study examining farmers' marketing practices focused on 570 farms located in the northeastern United States found that all respondents used word-of-mouth advertising and more than half had business cards (Baer & Brown, 2005). Contrary to the study by Xuereb, only 23% of farmers had road signage (Baer & Brown, 2005). Interestingly, only 48% of farmers had a mechanism for evaluating their advertising efforts, suggesting a need for farmers to have more education on how to develop and evaluate advertising strategies (Baer & Brown, 2005). Missing from the limited literature on the marketing practices of direct-market famers is the farmer's motivation for using specific advertising strategies. Other authors have called for greater attention to be paid to promotional strategies being used by direct-market farmers (Timmons & Wang, 2010), a void which the proposed study aims to address.

Websites and other forms of technology are increasingly important tools for marketing among direct-market farms. With computer use on farms growing steadily over the last decade, this trend may continue to increase. In 2013, 67% of farmers in the United States had internet access (United States Department of Agriculture, 2013). In Ontario, 58% of farms use a computer for farm management purposes (Ontario Ministry of Agriculture and Food, 2013), with 44.7% of all farms having access to high-speed internet (Statistics Canada, 2015b). However, computer use varied by farm, with larger producing farms being more likely to use a computer for their business than smaller producers (United States Department of Agriculture, 2013). A similar trend has been noted in Canada, with smaller farmers being less likely to use a computer for their business (Statistics Canada, 2009). With lower adoption of computer use on smaller farms, it is unclear what role technology plays in the direct-marketing of local food.

In the context of North American agriculture, little academic focus has been given to the use of technology for marketing, with more attention being given to advances in production technology (e.g., see Tey & Brindal, 2012). Very little research has focused on the use of online marketing (i.e., via websites) by farm producers of any size. Internet access may be an important determinant of financial success of direct-marketing farms (Uematsu & Mishra, 2011), but the cause of this relationship is unclear. Some authors have speculated that

farmers may use websites to emphasize and complement the other advertising efforts they are engaged in (Baer & Brown, 2005), increasing the farms reach. Therefore, whether technology is used to complement other marketing efforts or whether it is a significant endeavor on its own remains to be seen.

Even if farmers have the technological literacy to manage and actively contribute to a technological marketing approach, they still may not be able to ensure the sustainability of such an involved marketing strategy. As Bloom (2012) notes, SWO farmers feel the pressure of taking on the dual role of both producer and marketer. In interviews, farmers have revealed that time constraints affect farmers' decisions regarding how much to produce, as well as where and how they will sell their product (Bloom, 2012; Griffin & Frongillo, 2003). This dual role can lead to farmers opting to forgo certain farming activities, due to time constraints (Tippins et al., 2002). The amount of time required by any specific marketing strategy is an important consideration when determining its feasibility.

Literature on local food sales has grown over the past decade, with a greater academic focus on the role of local food within the larger food production system. However, current literature on marketing in local food systems is limited. Greater focus has been put on customers motivations for buying local rather than on local food vendors' barriers to selling their product. Further, existing marketing strategies attempt to scale-up local food and move beyond promoting individual vendors. The limited research conducted on these initiatives has revealed that they are effective, but more rigorous empirical research is needed to examine whether this is evidence is merely anecdotal.

2.5 Marketing Theory

The research to be undertaken adopts theory from multiple fields of the social sciences which will be integrated and examined through a geographic lens. Marketing represents the collective toolkit that firms have at their disposal to interact with their customers. In fact, how firms interact with and relate to their markets is considered to be a fundamental focal point in marketing (Day & Montgomery, 1999). Marketing geography is a sub-discipline of economic geography that deals with the influence of place and space on the marketing activities of businesses. Part of marketing geography's focus is on "daily trading practices conducted by small firms" (Davies, 1976:2). Marketing geography will serve as a lens

through which to examine the marketing practices of direct-market farmers. Although location choice is somewhat mutable in the sense that farms are able to sell their products at the farmers' market of their choice, the production of those same items are restricted to the productive capacity of the land on which it may grow. Thus, bridging the divide between production and consumption, which falls under the purview of marketing activities, is a phenomenon that deserves the attention of geographic analysis.

To date, the study of food marketing has focused on the effects of marketing on consumer food purchase behaviour (Lien, 2013). However, as Lien goes on to note:

> "What is needed is not a study of the effect of marketing on consumer behavior, but broader analyses of how markets, the marketing profession and marketing practice, taken together, constitute the contexts, or the playing fields, of food provision" (Lien, 2013: 271-2).

The study of marketing practices has undergone several theoretical revolutions over its history. Classical understandings of marketing emphasized the importance of generating transactions. The transaction marketing theory centered on the notion of attracting more customers to boost sales was the primary objective of all marketing activities. This was eventually supplanted by an emphasis on relationship marketing (Berry, 1983), and the idea that firms need to focus more on the relationships with customers to ensure long-term retention of their business (Doyle, 2011). More recently, focus has shifted toward a hybrid model of marketing which combines both transactional and relational aspects (Coviello, Brodie, Danaher, & Johnston, 2002). As discussed in sections above, little data exists on to what extent these strategies are being used by direct-market farmers.

Drawing on the foundational work by Callon (1998) a practice based approach to studying marketing among direct-market farmers will be taken. What constitutes 'marketing practices' can be conceived as any of the activities that a firm engages in with the purpose of "developing an actor's position within a structure…as well as efforts to operate in markets qua structures (e.g. to promote, advertise, sell) and the intended and unintended interactions between these practices" (Araujo et al., 2008: 8). Practice based scholarship, especially as it pertains to the field of marketing, has more recently focused on the actions of individuals in

marketing their business/products (Brodie, Coviello, & Winklhofer, 2008; Coviello, Winklhofer, & Hamilton, 2006). Araujo and colleagues argue that practice based research should strive for a focus on ‘performance’ rather than attempts at ‘representations’ (2008). These performances are embedded within “the emergent and unfolding practices that actors engage in to construct and problematize markets” (Araujo et al., 2008). This is contrasted with ‘representational’ inquiry, which strives for objective explanations and understanding of how the world actually is (Pickering, 1993). The proposed research aims to develop practice-based understandings of direct-market farmers marketing approaches.

2.6 Practice Oriented Research

Although still considered to be in its epistemological infancy, practice oriented research has become an attractive lens through which to examine topics in economic geography. Jones and Murphy (2010) conceive practices as being “manifest in the everyday activities that stabilize organizational communities and serve as repositories of tacit forms of knowledge that can be vital for long-run competitiveness” (370). It is these practices that allow economic actors to build and engage with larger networks.

One concern about practice oriented research, especially as it relates to economic geography, is its fixation on smaller scale processes that are not necessarily generalizable (Jones & Murphy, 2010; Jones, 2013). Thus practice oriented research is not concerned with merely cataloguing the actions of economic actors, but identifying those practices which play a role in shaping higher-level socioeconomic processes and assisting in theory-building (Jones & Murphy, 2010). The practice oriented approach allows the researcher to understand how economic actors construct and conceptualize the networks they are interacting with, which in turn provides the context behind economic and marketing decisions (Callon, 1998). Some researchers have examined marketing practices of firms of different sizes and from a variety of different industries, with firm size and industry/sector playing an important role in a firms marketing practices (Coviello, Brodie, & Munro, 2000). However, fewer have taken a practice oriented relational approach with direct-market farmers.

2.6.1 SME Marketing Practices

As outlined in the ‘Vendor Perspectives and Practices’ section of ‘Direct-marketing of Food’, marketing practices are understudied in the context of local food systems.

However, academics have studied the marketing activities of firms in other industries. The SME (small to medium-sized enterprises) marketing literature has focused on how smaller companies are different from larger companies, and how marketing models used by the latter are unsuitable for the former. Marketing decisions by owners of SMEs are more likely to be made in less rigorous and systematic ways (Coviello et al., 2000; Gilmore, Carson, & Grant, 2001). It is unclear whether this is also the case among direct-market farmers.

Recent research has focused on the role of relationships in marketing products and businesses, especially among SMEs. When networking with customers, owners of SMEs will dedicate significant efforts towards the development and maintenance of positive relationships with consumers (Coca-Stefaniak et al., 2010; Gilmore et al., 2001; Gronroos, 1990; Zontanos & Anderson, 2004). Many SMEs focusing on these relationships rely greatly on word-of-mouth promotion from their customers (Coca-Stefaniak et al., 2010). Recent research has indicated that a fundamental component of being able to maintain these close relationships with customers is the business's 'embeddedness' within the community (Coca-Stefaniak et al., 2010). This shows the importance of these relationships for small to medium-sized businesses.

Other scholars contend that transactional marketing, marketing activities which focus primarily on economic transactions and the 'Four Ps' of marketing (i.e. product, price, place, promotion) (Brodie, Coviello, Brookes, & Little, 1997), still play in important role in many firms marketing practices. However, as previously noted, it is likely that firms utilize a mixture of transactional and relationship marketing practices (Brodie et al., 1997; Coviello et al., 2002, 2000, 2006). Additionally, marketing practices are not homogenous and tend to vary in different industry sectors (Brodie et al., 1997; Coviello et al., 2006). These findings complicate understandings of marketing practices of smaller firms and highlight the importance of context-specific analysis of the firms being studied. However, it is unclear as to what degree of transferability exists in comparing the marketing practices of SMEs and direct-market farms.

2.7 The 'Relational' Turn

Economic geography has also undergone several theoretical revolutions, with a recent interest in the role relationships play in understanding economic actors. An important component of using a relational approach is understanding that each 'actor' cannot operate or

exist in isolation, and their very ability to perform is dependent upon interactions with other actors in space (Bathelt & Glückler, 2003; Boggs & Rantisi, 2003). As such, understanding how interactions take place and relationships are constructed and maintained between vendor and consumer represents an important part of understanding the production-consumption relationship in direct-market farming.

Relational economic geography also helps to critically reflect upon the impact of space. As Boggs and Rantisi (2003) note, the relational approach's primary concern with actors' interactions with one another downplays the analytical focus on specific scales (i.e. local vs. global), and instead encourages investigations of how multiple scales may interact. Bathelt and Glücker (2003) expand on this notion by noting that the specific contexts under which relationships are formed precludes the use of prescriptive spatial laws.

Interactions are a fundamental analytical component of the relational approach. In particular, the phenomenon of social embeddedness is of particular interest. Karl Polanyi (1957) was among the first to describe economic transactions as being composed of interactions between social actors. This was further developed and popularized by Granovetter's theory of social ties, which emphasized the importance of relationships in the diffusion of ideas (1973). The relational approach helps to build stronger understandings of these interactions by incorporating social interactions with the importance of place and space.

Examples of relational approaches abound in food studies. Of primary interest has been the notion of 'embeddedness', particularly on the part of the consumer. Embeddedness has strong roots in sociological theory, and can be thought of as representing "social connection, reciprocity, and trust" (Hinrichs, 2000:296) in economic relationships (e.g., between producers and consumers). Even though notions of embeddedness and social ties are important in understanding direct-market agriculture, conventional constructs such as price, still play an important role in these types of markets (Feagan, 2007; Hinrichs, 2000; Migliore, Caracciolo, Lombardi, Schifani, & Cembalo, 2014; Murdoch, Marsden, & Banks, 2000; Winter, 2003). In fact, evidence suggests that different methods of direct-marketing food (i.e. CSA vs. farmers' market stall) foster varied degrees of social embeddedness (Hinrichs, 2000). Further, the context-specific nature of consumer embeddedness was exhibited by Feagan and Morris's (2009) breaking of the concept into social, spatial and natural subunits to better understand producer consumer interactions at a farmers market.

This highlights the importance of investigating how different farmers interact with their consumers, and building a contextualized understanding of those relationships.

By using a relational approach, this study answers Winter's (2003) call for "agro-food research for work which integrates the economic and the sociological through studies that combine work on consumer and retail social relations and cultures of production and consumption" (p. 31). This research attempts to combine sociological theory with core geographic phenomena such as place and space to develop a richer understanding of direct-market farmers marketing practices.

Although there has been a recent proliferation of studies examining local food systems, marketing studies in the field have focused more on consumer preferences than producer practices. This is in spite of the growing body of evidence which suggests that small businesses operate and market themselves in dramatically different ways than larger companies. Therefore by combining practice oriented and relational approaches, richer understandings of the marketing activities of local food businesses can be reached, which will help to guide future research aiming to help grow local food systems.

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Chapter 3

3 Stakeholder perspectives on the use of smartphone and web technologies to strengthen the local food system of Southwestern Ontario

3.1 Introduction

Early work on local food systems (LFS) sought to understand the ways in which these 'alternative' systems of production differed from the globalized conventional food system (Hinrichs, 2000); recently the focus has shifted to strengthening and scaling up LFSs to move them beyond a 'niche' market (Mount, 2012). This can be a difficult undertaking, however, given the disparate views held, and roles played, by different actors within the LFS (Mount, 2012; Sundbo, 2013). Add to this the barriers faced by individual producers and vendors within the LFS to remain in business (Blay-Palmer & Donald, 2006), and the prospect of scaling up LFSs and helping vendors reach a larger consumer base becomes a daunting task.

Over the past decade, mobile technologies, such as smartphone applications and mobile-web tools, have emerged as a fundamental approach marketers use to reach consumers. Smartphones have become increasingly ubiquitous in society, and recent developments in technology have opened up the use of smartphones as agents of behaviour change to realize predominately health-related outcomes (Appel, Huang, Cole, James, & Ai, 2014; Hebden, Cook, van der Ploeg, & Allman-Farinelli, 2012; Lubans, Smith, Skinner, & Morgan, 2014; Patrick et al., 2013). The relative youth of smartphones means that little peer-reviewed evidence exists on how smartphone applications can be used to modify individual's purchasing behaviour and much less on how 'app' development can be optimized from the perspective of food vendors. Yet this untapped group may yield considerable knowledge and added value for developing and promoting tools that are effective at changing food literacy, food purchasing and consumption behaviors, and local food marketing (Hebden et al., 2012).

The purpose of this paper is to explore the views of LFS actors in relation to developing technological tools to help strengthen the local food system in Southwestern Ontario (SWO). To achieve this overarching goal, we will address two sub-objectives. First, we investigate the ways in which technology might be used by LFS actors to promote their businesses.

Second, we will examine how new technologies can be integrated into existing marketing efforts and initiatives. To accomplish these objectives, the research team hosted a series of focus groups across SWO in the spring and summer of 2014. The data from these sessions were analyzed using an inductive, grounded theory approach, which yielded emergent themes coming directly from the LFS actors. The following sections will outline the research team's motivations, methodologies, and the findings and their implications.

3.2 Background

3.2.1 Growth of Local Food Systems

Ontario's agri-food sector plays a crucial role in the province's economy, as evidenced by the passing of the Local Food Act in 2013 which set out to grow and strengthen local food economies and systems in the province (*Bill 36*, 2013). Indeed, agri-food has seen continuous growth in Ontario over the past decade with exports valued at $12.5 billion in 2014, an all-time high (Ontario Ministry of Agriculture, 2015a). On the other hand, agri-food imports have also risen considerably over the previous decade —up to $23.4 billion in 2014— creating a trade deficit of $10.9 billion, the largest in the previous 12 years (Ontario Ministry of Agriculture, 2015a). Among the products being imported, the two categories of fruits & nuts and vegetables account for $6 billion (over 25%) of Ontario's agri-food imports, compared to only $1.4 billion of those categories being exported (Ontario Ministry of Agriculture, 2015b). These trade imbalances represent an opportunity to increase consumption of Ontario-grown agricultural products. Part of the precursor to such a shift, however, would be an increase in demand for domestically grown products.

Interest in alternative food systems has grown rapidly over the past few decades in response to systemic issues experienced by both producers and consumers within the increasingly globalized conventional food system. Although dialogues concerned with 'food miles' have captured popular attention (Iles, 2005), this does not necessarily reflect the ultimate goals of shortened food supply chains. Shortened food supply chains represent an opportunity to simultaneously oppose the intermediary-laden structure of the conventional food system (Morris & Kirwan, 2010), while capitalizing on regional strengths and improving marketing efficiencies (Matson & Thayer, 2013; Renting, Marsden, & Banks, 2003). Renting and colleagues (2003) argue that:

> "The underlying new and reconstituted spatialities implicit in agrofood are being built and shaped around new types of comparative advantage, competition, and power structures, it would seem, which rely much more heavily upon constructing new synergies between proximate relationships, associations, and ecological and regional food identities" (408).

Thus, narrowly focusing on food miles misses the broader motivations and impacts that shortened food supply chains have in LFSs.

Scholars tend to agree that LFSs share at least one common philosophical orientation: they abhor the productivist paradigm (e.g. socially isolating, environmentally damaging, etc.) through which industrial agriculture and the conventional food system operate (DuPuis & Goodman, 2005; Hinrichs, 2000; Morgan & Murdoch, 2000). These alternative food systems collectively represent a diverse range of beliefs and practices, with the majority of academic literature focusing on some combination of: authenticity (Sims, 2009; Smithers, Lamarche, & Joseph, 2008; Wittman, Beckie, & Hergesheimer, 2012), quality (Goodman, 2003; Murdoch, Marsden, & Banks, 2000; Sonnino & Marsden, 2006), embeddedness (Migliore, Caracciolo, Lombardi, Schifani, & Cembalo, 2014; Murdoch et al., 2000), transparency (Cleveland, Carruth, & Mazaroli, 2015; Hunt, 2007; Sonnino & Marsden, 2006) and locality (Sims, 2009; Sonnino & Marsden, 2006). Because of the diversity of beliefs and practices, however, it has proven difficult to arrive at a consensus for what these terms mean to actors within alternative food systems.

A particularly apt example of this phenomenon is defining 'locality' and what constitutes 'local'. Despite the existence of an entire movement colloquially referred to as the 'local food movement', closer inspection reveals little consensus as to what or where the local is referring to (Coca-Stefaniak, Parker, & Rees, 2010; Winter, 2003). Eriksen's (2013) review of 15 studies which explicitly or implicitly defined local food found that most definitions involve some combination of: the distance to where food is produced; the nature of relationships between actors in the local food system; and the qualities and values various actors producing, selling, and consuming ascribe to local food. Adding further complexity is evidence suggesting that understandings of what local means tends to vary based on the role of the actor within the LFS (i.e., producer, intermediary, consumer, academic, policy maker)

(Dunne, Chambers, Giombolini, & Schlegel, 2011; Kneafsey, 2010; Ostrom, 2006; Pearson et al., 2011; Selfa & Qazi, 2005; Wittman et al., 2012). This suggests that fundamentally different perspectives are held by different actors within LFSs, which may make it difficult to create strong, cohesive networks. Thus, the search for universal definitions of what is local may prove to be a futile endeavor, with greater attention needing to be focused on developing contextualized definitions of local (Eriksen, 2013). Contextualized definitions that better meet the needs of all actors involved and account for regional variation and novelties may better serve to unite the varied members of LFSs.

Although achieving a consensus regarding key definitions in LFSs has proven difficult to date, other scholars have opined that attention could be more fruitfully focused elsewhere. Consumer education has been put forth as a mechanism for producers to demonstrate the importance of ideas like transparency and to empower consumers to make informed choices (Ostrom, 2006). In fact, this aspiration toward greater consumer education is common among a number of alternative food production systems (Fonte, 2008; Mount et al., 2013; Sonnino & Blay-Palmer, 2015; Wittman et al., 2012). Even successful attempts to reach a consensus definition of what constitutes local may invariably not represent the views of sub-populations, such as low income individuals (Blake, Mellor, & Crane, 2010). The process of educating consumers, by contrast, is more in line with the overall goals of creating a more inclusive food system, unlike the current system which marginalizes many populations (Walker, Keane, & Burke, 2010). Definitions of what is local may still serve an important role in unifying producers and vendors in a specific LFS, better enabling interactions with consumers and the community at large; thus, the need to maintain this link cannot be forgotten.

3.2.2 Local Food Marketing Initiatives

These educational efforts could help to quell misconceptions that many have about local food. Particularly strong among consumers are sentiments regarding local food's inconvenience. Issues with food safety (Nganje, Hughner, & Patterson, 2014), lack of information on vendors (Ohberg, 2012; Pearson et al., 2011), price (Pearson et al., 2011), and temporal availability of products (Pearson et al., 2011) are common reasons cited for preferring the convenience of shopping at a conventional grocery stores (Weatherell,

Tregear, & Allinson, 2003). Improved dialogue with consumers surrounding these perceptions of local food might therefore help make the LFS a more attractive option for consumers.

It is important to improve knowledge about what consumers know and expect from the LFS, but little is known about what tools vendors want or need to promote their businesses. Local food producers are left at a competitive disadvantage with large chain grocery stores in that they are responsible for both the growing and, in many cases, retail of their products (Bloom, 2012). With time being a scarce and precious resource, occupying these two spheres can force producers to make compromises both in the growing and selling of products (Bloom, 2012; Griffin & Frongillo, 2003; Tippins, Rassuli, & Hollander, 2002). Many producers turn to local food as a retail strategy in response to the restrictive procurement strategies used by grocery stores which typically demand high volumes of product and pay low prices per unit (Bloom, 2012; Eastwood, Brooker, Hall, & Rhea, 2002; Griffin & Frongillo, 2003). Direct-marketing food allows vendors to set their own price, helping vendors to reduce price uncertainty due to market fluctuations (Broderick, Wright, & Kristiansen, 2011; Griffin & Frongillo, 2003; Uematsu & Mishra, 2011). Further, research suggests that money spent at local food retailers, such as farmers' market vendors, is more likely to remain in the local economy via local economic multiplier effects (Hughes, Brown, Miller, & McConnell, 2008; Sadler, Clark, & Gilliland, 2013). Thus, moving from the conventional food supply system to an alternative food system offers economic incentives to producers and vendors.

Economic benefits, of course, are not the only incentive for LFS actors. Direct-marketing is one strategy used by local food producers to help create connections with consumers, as well as other vendors (Griffin & Frongillo, 2003; Lyson, Gillespie, & Hilchey, 1995; Smithers et al., 2008). These interactions help LFS actors build social capital and ties that help strengthen the LFS (Glowacki-Dudka, Murray, & Isaacs, 2012). Interactions with consumers and the ability to directly receive feedback can also help inform product development and/or marketing (Broderick et al., 2011). Additionally, farmers have reported that direct-market retailing is less stressful than retailing to wholesalers, with their stringent agreements (LeRoux, Schmit, Roth, & Streeter, 2009). Therefore, while economic incentives may serve as important motivators, the social benefits of the LFS are also important contributors for food businesses opting out of the conventional food system.

3.2.3 Strengthening Local Food Systems

Efforts to ‘relocalize’—or ‘(re)-regionalize’ (Kneafsey, 2010)—the food system have taken many different foci over the past decade. Some of these scalar approaches to food systems have garnered criticism for their conflation of scale with some inherent properties or outcomes with respect to food production (Born & Purcell, 2006). Similarly, conflations of scale are present in framing an artificial and antagonistic binary between alternative and conventional food systems, with conventional systems being equated to globalization, and alternative systems being linked to localization (Hinrichs, 2003; Morgan, Marsden, & Murdoch, 2006). With these criticisms in mind, academics are searching for ways to effectively scale up community initiatives. The importance of governance, infrastructure, social capital, and education have all been stressed in strengthening LFSs (Beckie, Kennedy, & Wittman, 2012; Mount, 2012; Mount et al., 2013; Qazi & Selfa, 2005; Sumner, McMurtry, & Renglich, 2014; Wittman et al., 2012). Additionally, recent work on LFSs has advocated for the need for region-specific strategic approaches that account for local variation in capacities and needs (Kneafsey, 2010; Sonnino & Blay-Palmer, 2015). Thus, future initiatives aiming to positively contribute to the growth of LFSs must account for these important considerations.

LFSs have experienced a recent explosion of technological tools for helping manage relations at various stages of the food chain, covering aspects from growing crops to selling products (for examples of different technologies currently available see FoodHub's website (2015)). What is missing is evidence of how these technologies are being developed in correspondence with the needs of businesses operating within LFSs. As noted above, the academic field of developing smartphone applications and technologies for behaviour change is rapidly expanding, especially in the context of promoting healthy lifestyles. Despite the recent proliferation of literature surrounding the strengthening and growth of local food networks, to the authors’ knowledge, no research currently exists which addresses technology’s role in LFSs and potential barriers to its adoption. This research aims to contribute to strengthening evidence for strategies which will help grow and strengthen LFSs.

3.2.4 Study Context

Our multidisciplinary research team is inspired by the need to address the triple-bottom line of: increasing the public's consumption of healthy foods, increasing profits for local food retailers, and improving environmental benefits. Previous work in SWO has addressed a wide range of food system issues, including access, exposure, affordability, consumption, economic impact, and policy (Glen, Thomas, Loebach, Gilliland, & Gobert, 2013; He et al., 2012; Larsen & Gilliland, 2008, 2009; Sadler et al., 2013; Sadler, Gilliland, & Arku, 2011, 2014; Sadler & Gilliland, 2015). The current project, therefore, incorporates this knowledge of the SWO food system to build on previous research.

Most recently, our work examined the impact of a mobile phone-based message delivery service called 'SmartAPPetite' on improving individuals' knowledge, purchasing, and consumption of healthy food from local vendors at a London, Ontario, farmers' market (Gilliland et al., 2015). Results indicated that those individuals who more frequently interacted with the messaging service (e.g., clicking on links, 'liking' messages, 'checking-in') also increased their consumption of healthy foods and decreased their consumption of unhealthy foods (Gilliland et al., 2015). Equipped with consumer feedback and usage data, the following research describes the steps taken to 'scale-up' the SmartAPPetite project by engaging local food businesses to better understand how to make technologies amenable to both users and vendors in the LFS. Although larger retailers have their own mobile phone applications (e.g., Starbucks® app, PC Plus™ app), small food businesses do not have the time and resources available (Bloom, 2012; Griffin & Frongillo, 2003), making development of these types of technologies difficult. The researchers feel that such an undertaking is geographically relevant, as the local food system in SWO is fragmented, with a dearth of community food activity in the region (Nelson, Knezevic, & Landman, 2013). This research makes strides toward addressing the void in literature to improve vendors access to local markets (Blay-Palmer et al., 2013), by directly engaging key stakeholders in a focus group setting to develop solutions that work within their current capacities, while simultaneously helping them to expand their marketing reach.

3.3 Methods

The use of focus groups for research purposes offers numerous methodological advantages for conducting qualitative research with relatively large groups of individuals. Focus groups can lead to unique forms of knowledge that differ from the data gathered from one-on-one interviews, in that the knowledge generated is a product of multiple respondents interacting with one another (Cameron, 2010).

Although focus groups are useful in generating knowledge concerning practices and beliefs, they also carry several limitations which bear acknowledgement. First, the knowledge produced from focus groups may not be generalizable to large populations, which underscores the importance of contextualizing findings, recognizing the limitations of the research being conducted, and noting any limitations to the transferability of the findings (Bradshaw & Stratford, 2010). This highlights the importance of carefully choosing the locations and times of focus groups, as well as considering the backgrounds of those individuals participating during the analysis of data. Additionally, when conducting focus group research, peer pressure can result in certain individual's under-disclosing information, especially in the presence of other participants they already know (Cameron, 2010). As many of the participants in this research work and live in the same area, some participants likely know one another. Because the information being sought in the focus groups was not sensitive in nature, however, the risk of participants being greatly impacted by peer pressure is reduced. Because focus group participants have a tendency to agree more often than disagree (Myers, 1998), focus group leaders encouraged disagreement where possible by playing 'devil's advocate' and encouraging alternative views. Additionally, questions were framed in an open-ended manner, so as not to encourage a specific response.

All of these limitations were considered during the development of a focus group guide by the research team in early 2014. The goal of the guide was to introduce participants to key lines of inquiry around how vendors perceive marketing opportunities and what they view as opportunities which could be used to strengthen the local food system in SWO. Particular focus was placed on the types of technologies LFS actors would like to see and what barriers might exist for these actors to adopt the proposed technologies.

3.3.1 Study Area

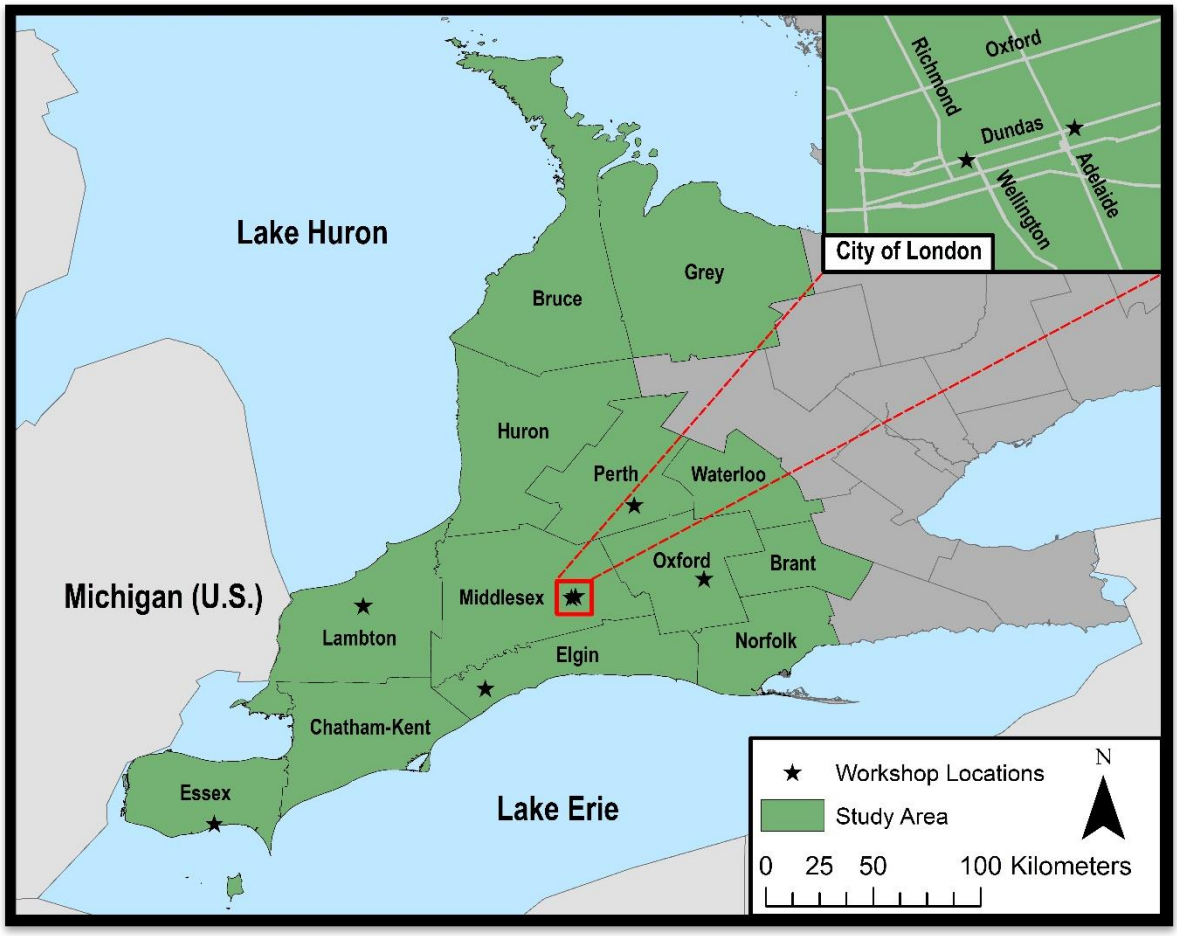

Figure 3.1 - Focus Group Study Area

Seven focus groups were held in six counties across SWO, with participants from 12 counties and 1 regional municipality being invited (see Figure 1). SWO was chosen as a study area for its geographic, socioeconomic, and historical ties to agricultural production, and the opportunities thus present for LFS growth. In 2011, the study area contained over 47% of both the total number of farms and agricultural land in the province (Ontario Ministry of Agriculture and Food, 2013a, 2013b). In spite of the strong presence of agriculture in the region, efforts to develop local food systems in this region are in their infancy relative to other areas of Ontario (Nelson et al., 2013). This highlights a need to engage the actors within the region's LFS to better understand their needs. Finally, the attention brought to local food by Ontario's passing of the Local Food Act in 2013 and the province's show of

support for local food production makes this research all the more spatially and temporally relevant.

3.3.2 Contacting Participants

Focus group participants were identified using a purposive sampling strategy: individuals with knowledge of the local food system were sought out foremost. Starting in February 2014, a contact list of local food stakeholders was assembled. Stakeholders were initially organized into one of three categories: restaurant/food business, farm, and non-producer (e.g., government officials, association representatives, local food researchers, etc.). Information for farmers was gleaned from a combination of each county's 'Buy Local' map and through correspondence with each county's farmers association (i.e., Ontario Federation of Agriculture, National Farmers Union, and Christian Farmers Federation). Restaurants and food business were also pulled from 'Buy Local' maps in addition to various local business directories. Non-producer stakeholders were identified using the 'Rural Guide' for each county (published annually by the Ontario Ministry of Agriculture, Food and Rural Affairs). Contacts were added to the list in an iterative process throughout the focus group recruitment process. Prospective participants were contacted via telephone, email, social media (through the SmartAPPetite project's Facebook and Twitter accounts), and word of mouth.

Focus groups were planned without a specific target size for the overall group. Instead, the researchers ensured that all individuals interested in attending could do so. In order to accommodate larger groups but still allow for small group interactions, participants were seated in tables consisting of no more than six participants. Each table was given time to discuss each topic and take notes on their agenda workbooks before reporting back to and discussing with the larger group.

To keep power dynamics in balance, locations for focus groups were carefully chosen to be informal and accessible (Cameron, 2010). Local partners already well connected in their region's food system (i.e., producers, food hubs, and community organizations) were sought out to help promote the focus groups, establish trust with participants, and add legitimacy to the initiative. In several cases these partners made space available to host the focus groups. Focus groups were scheduled to maximize geographic coverage across SWO and held in the

early evening to suit the needs of farmers and food business owners (i.e., after the ‘work-day’ ends).

3.3.3 Focus Group Structure

As participants arrived to each focus group they were given a letter of information explaining the nature of the session. After reading, participants were asked to sign a letter of consent if they agreed to take part in the focus group. Following this, participants were asked to ‘sign-in’ with their name, business or organization affiliation and contact information. Light refreshments were available at each focus group session but no further compensation or incentives were offered.

Each focus group session followed the same structure. First, an overview of the project was presented to the participants. This included the research team’s motivations, aspirations, and work completed to-date. Next, an overview of the focus group portion of the session was given. Participants were divided into groups of 4-6 to discuss two major themes: what new local food marketing technologies should do and how they should work. Individual themes were discussed separately and included sub-questions to guide group discussions. Each group was asked to appoint one ‘reporter’, who would take notes and report back to the larger group. Members of the research team sat at or rotated around each table to moderate discussion (i.e., to keep participants loosely on topic). As each smaller group reported their findings back to the larger group, one of the research team members would record emergent themes on a large notepad for all participants to see. To be respectful of participant’s time, focus groups were structured to last between 1.5 to 2 hours, as recommended by Cameron (2010).

Large notepads were positioned around the rooms and used to actively capture the comments of participants, rather than audio recording and transcribing notes from each focus group session at a later date. Introductory communications revealed that some participants would be more comfortable speaking and openly contributing their opinions without having their voices audio recorded. Furthermore, by openly recording on notepads, the researchers were able to actively engage in member checking during the focus group. It is important to actively verify and clarify what is being said by participants to ensure that what is being recorded is reflective of the participants views (Krueger, 1998). As such, member checking

helps to strengthen the credibility of qualitative research (Baxter & Eyles, 1997). Additionally, outlines of the focus group with major questions were distributed to all participants and collected after each focus group session. All participants were encouraged to write down their responses before sharing with the group, adding another measure to capture and preserve participant's thoughts in their own words.

3.3.4 Focus Group Data Analysis

The flip-chart notes were digitally transcribed by the primary author, along with participant workbooks and all notes taken by the researchers during each focus group session. All transcriptions were reviewed and verified by another member of the field research team for accuracy, improving the dependability of the transcripts (Baxter & Eyles, 1997). Although several themes emerged early in the research process, data collection at focus groups continued to ensure that the themes were representative of all geographic areas being included. An exploratory, grounded theory approach was used to examine the qualitative data from the focus groups. The transcripts were coded using both descriptive and analytic codes. Descriptive and in-vivo codes were used for themes that are superficially prevalent or brought up directly by participants (Cope, 2010; Saldaña, 2009). To move beyond these superficial themes, analytic codes were also used for giving context to what was shared by participants (Cope, 2010), some of which were drawn from previous literature. Coding of the transcripts was by no means a linear process, as the emergence of a new code requires transcripts to be continually revisited in an iterative, reflexive process (Cope, 2010). Following the approach of Saldaña (2009), first cycle codes (i.e., preliminary coding) consisted main of descriptive and in-vivo codes. Second cycle codes helped to refine the data with analytic codes, ultimately leading to more cohesive themes (Saldaña, 2009). Additionally, it was important to consider the context that the data was gathered in, including who did and did not participate in the focus groups, as this helps to place the results in their proper context (Bradshaw & Stratford, 2010). As such, participants' occupations/affiliations were gathered as part of a sign-in sheet. Finally, it is worth noting that the seven focus groups were initially planned in order to maximize geographic coverage across SWO. However, if thematic saturation had not been reached after the first seven workshops, the research team was prepared to continue to host more workshops. Thematic saturation was achieved by the

conclusion of the initial seven workshops, as no new themes were emerging from the focus group data (Strauss & Corbin, 1998).

3.4 Results

Table 3-1 - Number of participants by workshop location

Location	Farmers	Food Business Owners	Government Representatives	Local Group Representatives	Local Food Advocates/ Consumers	**Total**	Males	Females
Elgin County	15	0	1	0	4	20	5	15
Central London	3	4	1	4	7	19	6	13
East London	0	10	0	1	4	15	7	8
Oxford County	2	8	2	0	1	13	9	4
Essex County	3	2	2	2	3	12	4	8
Lambton County	0	3	0	1	0	4	2	2
Perth County	0	0	1	1	0	2	0	2
Total	23	27	7	9	19	85	33	52

In total, 85 local food stakeholders participated in the focus group sessions. This group consisted of: 23 farmers, 27 food business owners (including restaurants and stores), 7 government representatives (including representatives from local public health units), 9 representatives from local groups or associations (including community food initiatives and farmer organizations) and 19 local food advocates/consumers (Table 3-1).

In total, 34 participants were male and 51 participants were female. Workshops varied in size, with the largest group of participants gathering in Elgin County and the smallest located in Perth County.

Results are thematically separated into four larger categories which emerged from the focus group discussions: defining, educating, complementing, and creating. The sections that follow elaborate on these themes and are followed by a discussion of how they connect to existing literature on LFSs.

3.4.1 Defining what is Local?

When posed the question of what types of vendors should be included in technological interventions, questions were immediately raised about how we, the developers/curators of the technology, defined 'local'. As it was not in the researchers' interest to be prescriptive and purport to know more than actors within the LFS, we posed the question to them, what do they count as being local?

As it turned out, many participants struggled with ideas of what should be counted as local. As one participant noted:

> "What defines 'local food'? … I think that is almost a bigger question than what type of vendors [should be included]. I would suggest all local food that fits within your definition, but then it is not necessarily healthy and retailers might not necessarily have all their products fitting the definition, so then what to do?"

Notions of authenticity appear to be important to members of LFSs in defining who should be considered a 'local' business. Some participants suggested that membership with certification bodies might provide benchmarks to demonstrate what is local. Further, membership on MyPick® (run by Farmers' Markets Ontario), regional local food maps, or production certification bodies (e.g., organic) were thought of as representing businesses which are local. Participants also expressed fear that re-sellers who did not solely source from local farms might take advantage of being considered local. They wanted to ensure that as a consumer, "I can't go directly to your place of business to get fresh, local food if your main source of revenue doesn't come directly from local food!". Despite these concerns,

participants generally favoured including food businesses from neighbouring counties or who only sold some local produce than those businesses selling produce that can be grown in Ontario but choose to import from international destinations.

Overall, participants tempered caution when attempting to define what is local. There was concern that with the breath of businesses involved in the LFS, having too rigorous of a definition of local might result in the exclusion of certain businesses. Participants acknowledged that overly detailed definitions of local businesses might not be necessary, as it would be impossible to represent all the desires of consumers (and producers) and be "everything to everyone". Instead, technology should supply the consumer with adequate information to make informed decisions. As one participant noted, "I love the idea that the app users would be able to define the parameters for the definition of local food". It was important to participants that transparency and authenticity were clearly communicated to the customers, and one key mechanism through which this can be accomplished is by educating consumers.

3.4.2 Educating Consumers about Local Food

Participants identified educational initiatives as fundamental to increasing demand for their products. As one group noted, consumer lack of knowledge is the problem for vendors in the LFS. The perceived need to raise consumers' food literacy was especially prevalent among focus group participants. Particular emphasis was placed on helping to improve food preparation skills through offering cooking tips, recipes, and complementary products. Another major avenue that participants identified was the need for consumers to understand the importance of seasonality for local food. It was not only important for consumers to know when products were available locally, but also understand why certain products are not available from local vendors (e.g., out of season in Ontario, annual yield variation due to weather/pests). Similarly, participants raised the role that technology could play in helping consumers understand misconceptions about local food. As one participant noted, technology could play a role in "educating consumers about why local produce is more expensive". Additionally, building up consumers' knowledge of the nutritional content and label reading was seen as a strategy which would have the potential to help consumers understand the benefits of eating fresh, local foods, but also be more discerning when shopping at the

grocery store. Participants felt that once consumers possessed a greater knowledge about the food they consumed, they would purchase more from local vendors.

3.4.3 Complementing Existing Local Food Initiatives

Participants noted numerous existing initiatives for which collaboration would be logical to increase the reach of local food. Many participants noted the potential overlaps with existing county 'Buy Local' maps which could avoid a duplication of efforts by integrating. Another participant wondered "if it will overlap with current things like Foodland Ontario, Ontario Fresh". The existing infrastructure that is in place to maintain the accuracy of these county maps could be used to ensure any content on new technologies are kept up to date. Participants felt that including members from local government, health units, regional tourism boards, specific agricultural institutions, and provincial bodies should be tied into any initiative to ensure a collaborative environment is achieved. The inclusion of these larger organizations was also seen as a mechanism for ensuring the long-term sustainability of any project. Interestingly, in spite of all the partner organizations that participants suggested, one concern that was raised was the present perceived vacuum of leadership among the LFS in SWO.

One potential hurdle that participants, especially vendors, noted was the lack of time available to dedicate to keeping business information up-to-date. Although it was acknowledged that content must be kept accurate, vendors could not commit to continuously updating content due to a lack of available time. Among the participants, vendors noted the importance of technology being able to tie into their own existing sources of information to reduce the burden of having to repeatedly update content. The ability to centralize marketing efforts by pulling info from local food vendors' websites, Facebook and Twitter pages was considered to be a very desirable feature of any new technology.

3.4.4 Creating New Opportunities for Local Food Vendors

Participants also had numerous ideas for what new technology could help them to achieve. The potential for technology to forge new relationships was seen as a major asset. Many participants highlighted the connections which could be created between consumers and producers. As one farmer noted, technology could "inform consumers by connecting them

with the producers". Technology could also help to establish and relay emotional connections through a food business' history and unique stories. Technology was seen as a medium through which a customer could become familiar with or be exposed to local food vendors.

Participants were particularly enthusiastic about the potential of harnessing technology not only to increase their marketing reach, but also to acquire better data about their market's demographics: gaining access to more data would aid in better delivering products and services. In particular, the ability to generate concrete metrics was an exciting prospect for local food retailers. Participants also felt that the potential of using GPS —which is a feature already built into smartphones—as well as monitoring webpage visits and the number of users who 'like' their business (similar to the Facebook feature) would provide vendors with more marketing information. An important consideration included how to make these metrics available to those businesses that were less tech-savvy. Additionally, being able to interact with consumers through technology platforms was also considered valuable. Many were interested in not only giving consumers the ability to comment on their business, but in giving businesses the ability to post their own comments as well. Contrarily, one feature that participants were hesitant to embrace was the use of a rating system, as concerns were expressed that it may be unfair to some businesses if they were to get maliciously reviewed.

Focus group participants also stressed the importance of developing technologies which would be as inclusive in nature as possible. Developing technological products which would be user friendly and accessible to both users and businesses with lower technological literacies was seen as critical, as one participant noted "not everyone is tech-savvy". Participants also noted the potential for technologies to play an important role in making local food more accessible, possibly linking locations to public transportation. Similarly, the inclusion of a budgeting feature might enable consumers with a fixed income to support local food as well. Participants also felt that empowering consumers with a greater knowledge of what is in season would help them save money, as they could then purchase in-season items at a reduced price. All of these features were perceived to ultimately strengthen ties among LFS stakeholders, including consumers, producers, and vendors.

3.5 Discussion

The series of seven focus groups revealed an eagerness to develop new technologies which could help strengthen LFSs. Although participants had numerous ideas on specific features and functions which could be built into mobile and web-based technologies, current barriers to growing the LFS in SWO were also raised. As such, these focus groups served to not only inform the development of new technologies, but also highlighted priority areas to help grow and strengthen the LFS in the region.

Concerns over what should be considered local featured prominently in each focus group session, but little consensus existed as to what constituted 'local'. The heterogeneous responses may be attributed to the diverse range of positions represented from the LFS. This is consistent with previous research noting that different actors in food networks are likely to ascribe different meaning to local (Dunne et al., 2011; Ostrom, 2006; Pearson et al., 2011; Selfa & Qazi, 2005; Sundbo, 2013; Wittman et al., 2012). Similarly, concern over what businesses fall under the umbrella of local may serve more as a means of "construction and promotion…to a food buying public and in the codification of expectations or rules for vendor participation" (Smithers & Joseph, 2010: 348). Indeed, the importance of defining what is 'local' may be of more importance for defining parameters among vendors than it is for enhancing dialogues between producers and consumers. Responses indicated a general fear that 'nonlocal' businesses would co-opt the local 'brand' for personal gain. This fear of having their brand co-opted by actors in conventional food systems parallels early concerns about organic methods being repurposed for intensive agricultural production (Guthman, 2004), and highlight the perceived dichotomy between conventional and alternative food production systems—more than between local and non-local distinctions (Hinrichs, 2003; Morgan et al., 2006)—on the part of focus group participants.

Morgan and colleagues' (2006) adaptation of the 'worlds of production' (Salais & Storper, 1992) into 'worlds of food' helps to conceptualize how actors in the LFS need not subscribe to or reinforce antagonistic binaries that pit conventional and alternative food systems against one another. According to the 'worlds of food' view, these worlds are not static as they: evolve in response to, exist parallel to, and in many cases overlap with, one another (Morgan et al., 2006). By acknowledging the plurality of 'worlds of food' which exist in a fluid

symbiosis with one another, the value of forming cohesive, unified networks out of those that were previously fragmented becomes clear. In such a scenario, the need to reinforce isolationist binaries becomes obsolete, perhaps fostering linkages which lead to a stronger governance structure in the region and open up more economic opportunities for actors within the LFS.

Concern also existed among some participants that definitions of local and the use of technology would exclude certain groups, most prominently low income individuals and those with low technological literacy. Social justice has been noted to play an important role in alternative food systems as one of the key differentiating characteristics in relation to the conventional food system (Sonnino & Blay-Palmer, 2015), and this ethos needs to be carefully integrated into the development of any new technologies, not only for consumers, but also for vendors.

The lack of consensus on what should be considered local might explain why participants were rather emphatic about the need to better educate consumers. This echoes the findings from previous research which has stressed the important role that educational initiatives (i.e., offering product samples, food preparation recommendations, and recipes) play in local food producers marketing strategies (Alonso, 2010). Through strengthening dialogues between consumers and producers, producers will be better able to gauge demand and consumers will be able to make more informed decisions (Hinrichs, 2000; Ostrom, 2006). And although the desire for greater consumer education may be motivated by these economic benefits, educational initiatives also help to strengthen consumers ties to LFSs and lead them to become "passionate advocates of consuming locally grown foods" (Alonso, 2010: 318). By placing more focus on fostering a dialogue with consumers and less on determining rigid criteria for what constitutes local, actors within the LFS are forging connections based on local knowledge and understandings (Fonte, 2008). Thus, educational outreach is an important component of marketing local foods not only for the economic transactions it may facilitate, but also for the important role it plays in building and strengthening ties to the LFS.

Educational initiatives can help the consumer to know what qualities and traits to look for and help temper expectations of local food (e.g., which food's are in season), but participants also noted the importance in coupling education with greater authenticity, legitimacy, and

transparency in the LFS. Paradoxically, calls for greater authenticity may exclude or marginalize the practices of some members of the LFS. Not only are definitions of authenticity highly variable (not unlike definitions of local), those that take a binary perspective (i.e., authentic vs. inauthentic) risk excluding businesses which may not meet all the criteria (Smithers & Joseph, 2010). Attempts to establish authenticity can also often result in a push to seeking some form of certification or labeling. Several participants expressed a desire to have these certifications and labels clearly presented on any form of technology. However, the over-emphasis on labels and certification may paradoxically be detrimental to building connections with consumers as previous research has noted that many consumers are confused, unfamiliar with, or even skeptical of such endeavors (Padel & Foster, 2005). Thus, overemphasizing notions of authenticity in technology may not serve to increase consumer ties to the LFS.

"Legitimacy demands careful attention to establishing and maintaining an alternative identity" (Mount, 2012: 112). Mount (2012) further notes, however, that conceptualizations of 'alternative' are constantly in flux, especially as food systems grow. Transparency (e.g., growing techniques, product sourcing, etc.), while difficult to achieve, may represent the most realistic of the three items to incorporate into new technologies for LFSs. Transparency has been recognized as a core component of alternative food systems (Connelly, Markey, & Roseland, 2011), and technology may have the potential to build greater transparency into LFSs. By centralizing and presenting information from vendors to consumers, the informed consumer is left to scrutinize and choose the businesses that best reflect their own personally held beliefs of what local means. Thus, technology holds the potential to act as a passive tool for local food evangelism. However, for transparency to be demonstrated, consumers must first be educated to know what signals to look for.

Although participants expressed a desire to use the technology to integrate members of the SWO LFS, the absence of a guiding body for the LFS was seen as a major limiting factor. This perceived lack of leadership from producers and vendors may explain the dearth of community food initiatives previously observed in the area (Nelson et al., 2013). The importance of organizational leadership has been noted in cooperative food systems, where repetition and duplication of efforts are common due to a lack of communication and connections between initiatives (Sumner et al., 2014). The presence of leadership can be

"central in leveraging the strengths of many disparate groups for a cooperatively agreed-upon goal" (Sumner et al., 2014: 58). Focus group members were able to identify numerous organizations and initiatives involved in advancing the LFS in SWO, but none of those identified were considered to be 'leaders' by focus group participants. The perceived vacuum of leadership may be attributed to lower levels of connectivity between members of the LFS where focus groups were hosted. Indeed, Nelson and colleagues (2013) argue that scarcity of community food initiatives in SWO may be attributed to a lack of social capital in the region. As such, creating projects which increase social ties between LFS actors and groups may serve to unite food system actors in the region and create a stronger system of governance in the SWO LFS.

The importance of connections can also be extended to the vendor-consumer relationship as well. While other authors have noted the important role that 'embeddedness' plays for both consumers and producers (Feagan & Morris, 2009; Hinrichs, 2000; Migliore et al., 2014), focus group participants expressed an interest in harnessing the power of technology to forge new bonds and strengthen loose ties. Again, the concept of transparency coupled with the ability for consumers to freely engage and interact with vendors via technology may serve to recreate spaces of interaction that have been, to date, largely limited to face-to-face visits at farmers' markets or other retail sites.

An additional goal of these focus groups was to strengthen informal ties between various actors in the LFS. By bringing together actors who occupy different positions in the LFS (e.g., farmers and restaurateurs), these focus groups served as more than tools for gathering data. Encouraging discussions and introducing each participant to one another may help to create bridging bonds between participants, in line with Granovetter's argument that these bonds create strong social networks (1973). Within these focus groups, participants' conceptualizations of local were much closer aligned to views supporting a diversity-receptive localization, recognizing the fluidity of local (Hinrichs, 2003). This diversity-receptive outlook will be beneficial for the development of new technologies, as it would allow for local boundaries (i.e., counties) to be dissolved and integrated. In fact, the importance of networking among LFS actors has been recognized as an important mechanism for developing social capital and strengthening the LFS overall (Glowacki-Dudka et al., 2012; Nelson et al., 2013). Consequently, a more unified LFS is better equipped to

work with conventional retailers and reach larger markets (Glowacki-Dudka et al., 2012), helping to vanquish the counterproductive conventional/global versus alternative/local binary (Hinrichs, 2003).

Among the most important findings from this series of focus groups was the desire and need for greater connectivity in the SWO LFS, suggesting a need for more initiatives and opportunities which foster collaboration between actors representing different levels of the food system, scales of operation, and geographic regions.

3.6 Conclusions

This research contributes to the growing body of literature that examines the perspectives of food system actors. It builds on previous studies which have primarily taken a consumer-centric view of understanding the marketing of local food by including a variety of actors from different positions within the SWO LFS. In using a qualitative, grounded theory approach, the specific results from these focus groups may not be generalizable to other geographic areas. Rather, the goal of this research was to develop contextualized knowledge which can be mobilized in a pragmatic manner within the region, and the broad lessons learned are apt for other regions to consider.

This research highlights the desire for greater collaboration among actors within the SWO LFS, especially in areas that have previously had a low volume of community food activities. While there was little agreement over what constitutes local, consumer education was seen as playing an important role in promoting LFSs, particularly in increasing linkages to and within the SWO LFS. Participants also identified a litany of partnerships and initiatives that would need to be built into any new technologies. Particularly enticing for vendors was the prospect of being able to interact with consumers via technology and also capitalize on the potential metrics that could be generated, giving them more information to better run their businesses.

These focus groups highlighted the potential role that technology might play in addressing two of the opportunities and challenges faced by Ontario community food initiatives, namely: promoting consumer education about local food and helping to strengthen networks consisting of actors at various levels of the LFS (Sonnino & Blay-Palmer, 2015). These focus

groups helped to develop technologies that would better suit the needs of the SWO LFS. It is hoped that by addressing these two areas that technology might help to solidify another priority of helping to facilitate viable incomes for farm families (Sonnino & Blay-Palmer, 2015).

Moving forward, the knowledge produced during these focus groups will help to inform future versions of the SmartAPPetite smartphone application and companion website. Ideally these technologies will serve to educate consumers and increase transparency by making more information on producers available. Additionally, the research team will seek to strengthen partnerships with other actors and organizations in the SWO LFS, in order to scale-up resources and avoid the duplication of efforts where possible. The next phase of the project will seek to examine the long term efficacy of these technologies in altering consumer purchasing behavior and their overall economic impact.

While this study included members of a variety of positions within the LFS and from across the SWO region, it only captured the opinions and thoughts of 85 individuals in an area with potentially thousands of members. Thus, it is possible that these views may not be representative of the larger SWO LFS. Further, the focus groups were positioned as an opportunity to contribute to the development of new technological tools to promote the SWO LFS. As such, some potential participants who were contacted may not have felt they had much to contribute due to their own technological literacy deficiencies, and our sample may reflect those with greater interest in using technology.

For alternative food systems to be strengthened and ‘scaled up’, more regionally contextualized understandings of the actors that make up these networks must be generated. Further, technology offers the potential to bridge several existing initiatives and generate the necessary social capital to unite and strengthen the regional LFS. Many examples of technological innovations used by members of the LFS already exist, but evidence on their impact of the growth and strengthening of LFSs has lagged considerably behind development of these technologies. Additionally, understanding consumers’ views of technology with respect to engaging with local food will be paramount to developing effective technologies which connect producers and consumers, as without user engagement such technologies would serve little function. Though technology may not be a panacea to issues within

alternative food systems, it may be able to contribute to their growth and strengthening, and ultimately help to realize a more resilient alternative to the conventional food production system.

3.7 References

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Chapter 4

4 Selling local: A mixed-methods examination of the marketing practices of direct-market farms in Southwestern Ontario

4.1 Introduction

Recent work examining alternative food systems has sought to increase their reach by scaling-up and out (Blay-Palmer et al., 2013; Mount, 2012; Sonnino & Blay-Palmer, 2015; Wittman, Beckie, & Hergesheimer, 2012). Before such efforts can be effectively implemented, however, a better understanding of the marketing activities of the actors within local food system (LFS) is needed. An abundance of research has been devoted to understanding consumers' preferences regarding the marketing of local food (Brown, 2003; Chang et al., 2013; Nganje, Hughner, & Patterson, 2014; Rosa & Nassivera, 2013; Thilmany, Bond, & Bond, 2008; Weatherell, Tregear, & Allinson, 2003), but much less focus has been placed on examining marketing from the farmers' perspective. With a better understanding of the current marketing practices of direct-market farms, gaps and barriers can be addressed to increase the marketing reach of farms, which should act to help grow and strengthen the LFS.

The purpose of this study is to gain a better understanding of the marketing practices of direct-market farmers in Southwestern Ontario (SWO). The study had three specific objectives: (1) reveal how SWO direct-market farmers prioritize marketing and promotional strategies for their farm business; (2) examine the relationship between demographic factors and the adoption of technology-based marketing strategies and (3) to gain an understanding of which strategies farmers believe to be most effective, and why. To address these objectives, a concurrent mixed-methods approach was used to examine responses from an online survey of direct-market farmers; quantitative data was analyzed using a rank-ordered logit model and qualitative data from open-ended survey questions was analyzed using a grounded theory approach. The following sections will provide an overview of relevant literature, details of the methods used to collect and analyze the data, and the results and implications of this study.

4.1.1 Current State of Agriculture in Ontario

Ontario's food production system has seen a myriad of structural changes in recent decades which have had a large impact on the agricultural landscape. In the fifteen years between 1996 and 2011, 15,570 farms and 22,110 farmers left the industry (Ontario Ministry of Agriculture and Food, 2013b). This exodus has led to the average growth of Ontario farms by 38 acres (Ontario Ministry of Agriculture and Food, 2013b), with the trend toward larger scale farms coming at the peril of farms smaller than 240 acres, which have declined by 6% over that same time period (Statistics Canada, 2012).

Despite the loss of farmers, Ontario's agri-food sector continues to grow, with all-time high exports in 2014 valued at $12.5 billion, compared to $8.6 billion in 2004 (Ontario Ministry of Agriculture, 2015). However, as exports have increased dramatically, so too have food imports. In 2014, $23.4 billion of food was brought into Ontario, up from $12.2 billion in 2004 (Ontario Ministry of Agriculture, 2015). Although both imports and exports have grown to record levels, so too has the trade deficit, rising from $3.5 billion in 2004 to $10.9 billion in 2014 (Ontario Ministry of Agriculture, 2015).

The two largest growth sectors over the past decade for agri-food exports were grain products and oilseeds (Ontario Ministry of Agriculture, 2015), which are typically grown using conventional agricultural practices. Not surprisingly, commodity field crops such as canola, grain, soybeans, and wheat have all seen acreage increases 1996 (Ontario Ministry of Agriculture and Food, 2013b). Simultaneously, more labour intensive crops such as fruit and vegetables have seen their acreages decline over the same time period (Ontario Ministry of Agriculture and Food, 2013b), a revelation which is all the more troublesome given that the farms that grow these crops are smaller in size (Uzea & Sparling, 2013). The uneven effects of re-structuring in the agricultural industry can also be seen in income disparity on Ontario farms. The trend toward larger-scale production can be seen in the 5.8% growth in farms reporting total gross farm receipts over $500,000 between 2006 and 2011 (Statistics Canada, 2015b). These large farms account for a disproportionate portion of wealth on Ontario farms, as they only represent 10.8% of the farms, but account for 68.1% of the province's total gross farm receipts (Statistics Canada, 2015b). So despite Ontario agriculture realizing record

production levels, economic opportunities are not being realized by all farmers, especially those which are smaller in scale.

In addition to the economic inequalities, demographic shifts among Ontario's agricultural producers have emerged as a growing concern. Ontario farmers had an average age of 54.5 in 2011, compared to 52.6 in 2006 (Statistics Canada, 2015b). Furthermore, as is the case with farm income, farmer aging is having a greater effect on Ontario's smaller farms. From 1996 to 2011, the proportion of farmers who are 55 years of age and older increased more for small and medium farms than it did for large farm operators (Statistics Canada, 2015a). These economic and demographic shifts paint a grim picture for the future of small and medium scale farms, which currently represent the majority of Ontario farms (Statistics Canada, 2012).

4.1.2 Direct Marketing

Discontent with the conventional food system has drawn many producers to 'alternative' systems of food production. By shifting focus toward shorter supply chains, farmers can bypass the intermediaries that are typical in the conventional food system (Morris & Kirwan, 2010), opening new marketing relationships which are more regionally based (Renting, Marsden, & Banks, 2003). Direct-marketing, in the agrarian context, can be thought of as a collection of retail strategies which decrease the distance between producers and consumers (Feagan, 2008). These retail strategies can include: community shared agriculture (CSA), farm-to-school programs, farmers markets, on-farm shops and stalls, pick your own operations (PYO) and more (Gale, 1997; Low & Vogel, 2011; Matts, Conner, Fisher, Tyler, & Hamm, 2015; T. K. Morgan & Alipoe, 2001).

Critics of direct-marketing opine that its overall impact pales in comparison to the output of the conventional food system (Tippins, Rassuli, & Hollander, 2002). Other scholars point to fallacies surrounding 'the local trap', wherein individuals ascribe values to specific scales of food production (Born & Purcell, 2006). Indeed, it is these misunderstandings of scale which have led to conventional food systems being equated with globalization and alternative food systems with localization (Hinrichs, 2003; K. Morgan, Marsden, & Murdoch, 2006). However, arguments that promote a binary between alternative and conventional systems of

food production are misguided and counterproductive, as these systems do not exist in isolation from on another (K. Morgan et al., 2006).

4.1.2.1 Consumers and Direct Marketing

Studies of local food marketing have largely focused on consumer practices and preferences. Recent research has highlighted several barriers for customers attempting to purchase local food, including: difficulties finding vendor information (Ohberg, 2012; Pearson et al., 2011), inconvenient hours of operation (Pearson et al., 2011), food safety concerns (Nganje et al., 2014), and concerns over price (Pearson et al., 2011). These barriers lead many consumers to conclude that grocery stores, with their 'one-stop-shop' appeal, offer a more convenient option for food purchases (Weatherell et al., 2003). Contrary to these studies, direct-market retail formats, such as farmers' markets, can increase the amount of fresh foods available and decrease the prices of residents have to pay, especially in areas with poor food access to supermarkets (Larsen & Gilliland, 2009).

Customer's motivations and practices at farmers' markets have been particularly well documented. Although customers' who frequent farmers' markets may differ from the average consumer (i.e., older, more educated), they do tend to have a strong desire to support local farmers (Feagan & Morris, 2009; Schneider & Francis, 2005). Further, consumers perceive produce at farmers' markets to be of higher quality relative to produce available at grocery stores (Brown, 2003). Alongside valuing the product quality available at farmers' markets, consumers have also been noted to be willing to pay a premium for locally sourced products (Chang et al., 2013; Schneider & Francis, 2005). However, price is not the only factor that influences the purchasing habits of farmers' market customers. Customers enjoy the ability to interact with vendors and get to know where their food is coming from (Feagan & Morris, 2009; Hunt, 2007). These interactions are very important, as customers' perception of vendor service quality carries repercussions for consumer satisfaction and loyalty (Rosa & Nassivera, 2013). Therefore, consumers have a specific set of expectations and preferences regarding the marketing of local foods.

4.1.2.2 Vendors and Direct Marketing

Despite the trend toward larger-sized farms, the number of direct-market farms (of which many are relatively small) and the value of products they sell has increased over the previous two decades (Low & Vogel, 2011; Monson, Mainville, & Kuminoff, 2008; Thilmany & Watson, 2004). Large farms, which are better able to achieve economies of scale, are more likely to participate in traditional marketing systems (Corsi, Borsotto, Borri, & Strøm, 2009). However, smaller farms that are unable to compete in traditional markets may turn to direct-marketing their products to increase sales by avoiding fluctuations in prices and reducing price uncertainty (Broderick, Wright, & Kristiansen, 2011; Detre, Mark, Mishra, & Adhikari, 2011; Uematsu & Mishra, 2011). These small farms feel they are unable to compete with cheaper imported products (Bloom, 2012), or meet the product volume requirements that are typical of conventional marketing contracts (Bloom, 2012; Eastwood, Brooker, Hall, & Rhea, 2002). Finally, direct-market retail formats also offer benefits to the surrounding community, with money that is spent in famers' markets' spilling into the local economy via multiplier effects (Hughes, Brown, Miller, & McConnell, 2008; Sadler, Clark, & Gilliland, 2013). Direct-marketing may thus be considered a strategy for small farmers to remain economically viable.

Direct-market farms also face several challenges. Direct-marketing food requires a greater time commitment from farmers, as they must grow and sell their products without the assistance of brokers or intermediaries (Bloom, 2012; Tippins et al., 2002). This may result in the farmer having to scale-back growing food and/or retail activities (Bloom, 2012; Griffin & Frongillo, 2003; Tippins et al., 2002). However, these costs may be offset by farmers' perception of direct-market retail being less stressful than wholesale retailing (LeRoux, Schmit, Roth, & Streeter, 2009) and receiving informative product feedback from customers (Broderick et al., 2011). In order to be able to capitalize on the potential benefits of direct-marketing, farmers must be able to reach consumers.

Limited evidence currently exists on vendor perspectives on local food marketing activities. Schmit and Gómez (2011) recommend that farmers' markets borrow innovative marketing strategies from supermarkets to attract and retain customers (e.g., coupons). This may be difficult for direct markers as research indicates that small-to-medium firms do not have the

same knowledge and resources available as large firms (Gilmore, Carson, & Grant, 2001). Recognizing this disparity in resources, local governments and associations have created directories and 'Buy Local' maps to help consumers find direct-market farms (Blouin, Lemay, Ashraf, Imai, & Konforti, 2009; Xuereb, 2005). Although these 'Buy Local' maps exist for most counties in SWO and beyond, scant evidence exists regarding their impact. In a survey of 59 farms conducted by the Region of Waterloo Public Health unit, more than 40% of the farmers felt that being listed on the map helped to increase farm sales (Xuereb, 2005). That survey also found that over 50% of farmers used: newspaper advertisements, roadside signs, and/or word-of-mouth, while more than 25% of farmers used pamphlets/flyers or had their own website (Xuereb, 2005). Further, over 65% of farmers included roadside signs and word-of mouth among their three most effective marketing methods (Xuereb, 2005). In a larger sample of 570 farms in the northeastern United States, all farms surveyed reported using word of mouth marketing, while only 23% used road signs (Baer & Brown, 2005).

Among the limited evidence, word of mouth appears to be one of the best marketing strategies used by direct-market farmers. Indeed, word of mouth is widely considered to be among the oldest and most effective way of marketing (Doyle, 2011). As a strategy, word of mouth involves the exchange of specific information related to a business, product, or service between two parties, typically people who know one another, adding a layer of trust into the information being shared (Doyle, 2011). Word of mouth has been noted to play an important role in attracting consumers to established farmers' markets, but less effective with newer markets (Hunt, 2007). Word of mouth can also shape a consumer's expectations of a business (Rosa & Nassivera, 2013), and may be second only to having made a previous purchase of local food products in influencing the purchase of locally grown products (Hultine, Cooperband, Curry, & Gasteyer, 2007). Mirroring findings from marketing literature in other sectors, research indicates that less than 50% of farms tracked the efficacy of their advertising campaigns (Baer & Brown, 2005), highlighting a need for better marketing education for direct-market farmers. Evidence of the motivation for using other marketing strategies is also largely absent for direct-market farmers, which has prompted calls for more focus to be placed on direct-market farms promotional strategies (Timmons & Wang, 2010).

4.2 Methods

To achieve the research objectives, this study adopted a mixed-methods approach. Studies have shown that using mixed methods can facilitate greater flexibility in the research design process to examine specific questions under the purview of an overarching theme (Tashakkori & Creswell, 2007). Mixed methods data collection techniques, such as concurrent data collection, increase the convenience for participants with time availability restrictions (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). Additionally, this research uses a mixed-methods approach to build knowledge that provides both "breadth and depth of understanding" (Johnson, Onwuegbuzie, & Turner, 2007:123), thereby helping to form a contextually relevant understanding of direct-market farmers' marketing strategies.

4.2.1 Study Area

SWO was selected as the area of focus for this research. Conducting research in a specific geographic area can be useful in helping to establish, or strengthen a LFS (Schneider & Francis, 2005). In particular, direct-market farmers from 12 counties and 1 regional municipality were invited to participate in an online survey. SWO is a major contributor to agricultural production in Ontario, with the study area accounting for more than 47% of the farms and farmland in the province (Ontario Ministry of Agriculture and Food, 2013a, 2013c). Additionally, the 2013 Local Food Act was passed to help support the growth of local food production in Ontario (*Bill 36*, 2013), and previous research in the region indicates that LFSs in the SWO are less developed than those in surrounding areas (Nelson, Knezevic, & Landman, 2013), making this research all the more relevant.

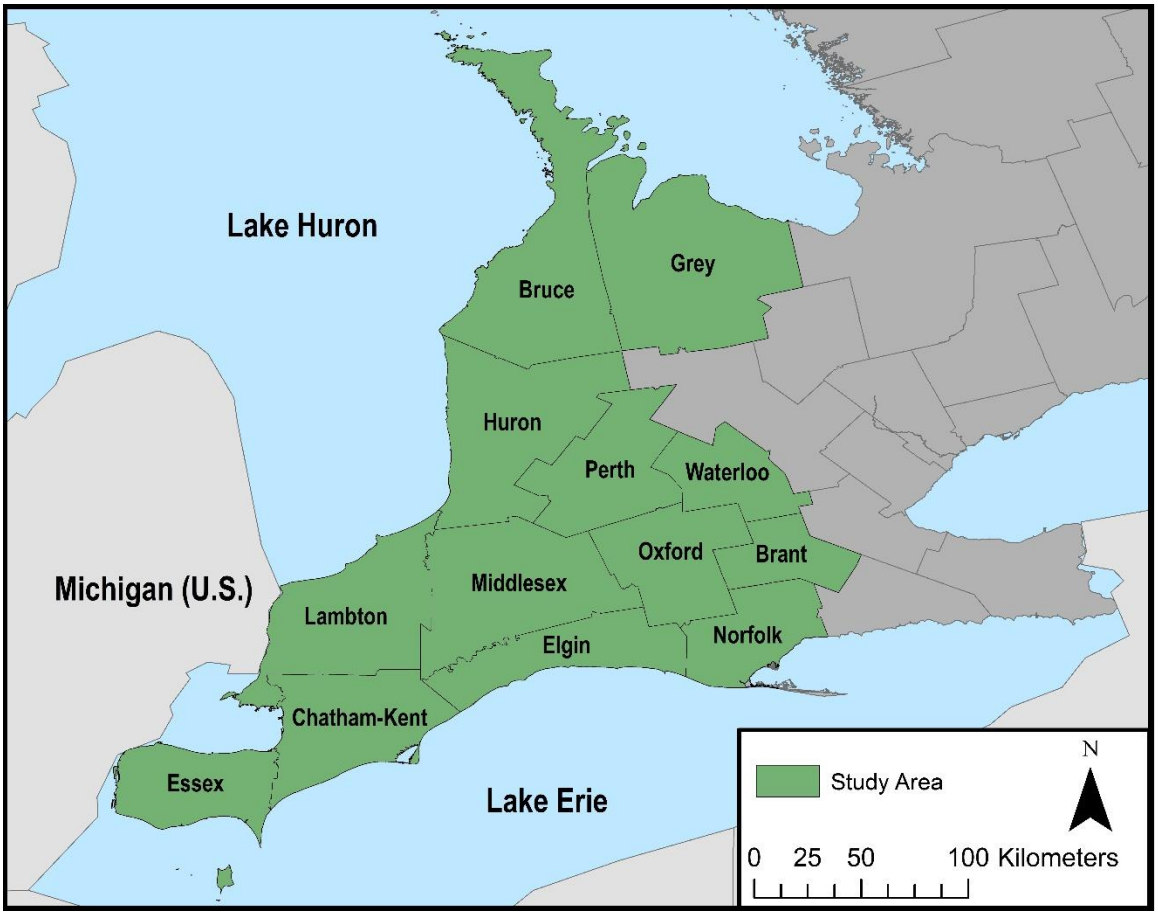

Figure 4.1 - Study Area

4.2.2 Survey Development

The primary method of data collection in this study was an online survey administered to direct-market farmers throughout SWO. An effective survey allows for both generalized conclusions across geographic boundaries (i.e., counties) (Rea & Parker, 2012), as well as inter-regional comparisons. In addition, a survey allows for standardization of questions, ensuring that the study is replicable in other geographic regions (Rea & Parker, 2012). Survey research also allows for a diversity of question types to be asked, facilitating the collection of both quantitative and qualitative data (Evans & Mathur, 2005). Using an online survey platform, data may be gathered quicker and more cost-effectively than collecting data face-to-face (Heiervang & Goodman, 2011). Additionally, an online survey platform helps to minimize issues associated with data quality by having built in functions that increase question completion (e.g., automated prompts notifying users of unanswered questions) (Schleyer & Forrest, 2000). The online survey helped to streamline the delivery of sector

specific questions (i.e. questions that only apply to businesses engaged in agricultural production), automatically skipping questions that did not apply to a particular business. While response rates for online surveys may be lower than those administered by conventional mail (Shih & Fan, 2008), measures can be taken in study design to mitigate such effects, such as sending reminder messages.

An online survey was developed using Qualtrics®, an online survey platform available through a site license held by the Faculty of Social Science at the University of Western Ontario. The survey was designed to gain a better understanding of the characteristics, practices, and aspirations of local food businesses. Several questions were adapted from the Ontario Ministry of Agriculture, Food and Rural Affairs' 'Business Retention and Expansion Survey' and the Canadian 'Census of Agriculture'. The survey was used to collect data on: (1) farm characteristics (including geographic location and products sold), (2) farm operator demographics, and (3) current marketing strategies used. Specifically, the questions concerning marketing strategies asked each participant to identify all the marketing strategies used by their farm, and rank each relative to one another based on use. Participants were also asked to indicate what method of marketing they found to be the most effective and explain their choice.

4.2.3 Contacting Participants

Key agricultural stakeholders were identified using the most recent 'Rural Guide' published for each county by the regional offices of the Ontario Ministry of Agriculture, Food and Rural Affairs. Each major agricultural organization was contacted and asked to share the survey with members who are engaged in direct sales. In addition, a combination of existing sources, including 'Buy Local' maps from SWO counties (e.g. "Get Fresh ...Eat Local" Middlesex-London Local Food Guide), and business directories, were used to identify relevant participants. The final list consisted of 519 contacts who operated some form of a direct-market farm.

Farmers were contacted with an invitation to fill out the survey starting in September of 2014. Due to the large geographic area being covered by the survey, contacting was done in waves to ensure that contact information was correct. Up to two reminder emails were sent to all who did not initially fill out the survey. Paper copies were made available to any

participant indicating they preferred to respond offline, with two respondents choosing to respond this way. These paper copies were subsequently transcribed into the Qualtrics® database. The survey consisted of 34 questions and took approximately 25 minutes to complete (Appendix C).

4.2.4 Survey Analysis

4.2.4.1 Quantitative Analysis

All survey responses were examined and any incomplete surveys were excluded from analysis to allow comparisons of demographic data among respondents. Summary statistics of the survey data was analyzed using the SPSS® software package. To compare how direct-market farmers rank their different marketing strategies, an exploded logit model (also referred to as a rank-order logit model) was used. This model is a generalization of the conditional logit regression model (McFadden, 1973). Although exploded logit models have traditionally been used primarily in marketing and economic research (Beggs, Cardell, & Hausman, 1981; Chapman & Staelin, 1982), applications examining preference rankings have been applied a myriad of other topics, including forest management (Kumar & Kant, 2007).

If each participant is asked to rank a set of *J* marketing strategies, Y_{ij} would represent the rank assigned to marketing strategy *y* by participant *i*. Y_{ij} can be represented by any integer between 1 (highest rank) and *J* (lowest rank). The model assumes *J* to be constant across all participants, however, as will be discussed, this is not necessarily always the case. The exploded logit model draws its name from the observation that the ranking of *J* alternatives can be thought of as an explosion into *J* – 1 independent observations (Salomon, 2003). As such, the ranking utility value component, written as $U_{i1} > U_{i2} > \cdots > U_{ij}$ can be 'exploded' to $(U_{i1} > U_{ij}, j = 2, \dots, J), (U_{i2} > U_{ij}, j = 3, \dots, J), \dots, (U_{i(J-1)} > U_{ij})$ (Salomon, 2003). Following the logic of the Random Utility Model (see Baltas & Doyle, 2001), each respondent *i*, ascribes an unobserved utility value (U_{ij}) to each item *j*, with the utility value being composed of a systematic component (μ_{ij}) and a random component (ε_{ij}), such that:

$$U_{ij} = \mu_{ij} + \varepsilon_{ij} \qquad (1)$$

For Equation 1, each ε_{ij} is assumed to be independent and identically distributed with an extreme value distribution represented by Prob($\varepsilon_{ij} \leq t$) = exp{ - exp(- t)}. The systematic components (μ_{ij}) are numerical values, with the probability of choosing marketing strategy j over k represented by exp{ε_{ij} - ε_{ik}}. Thus, the systematic component can be described as a linear function composed of a set of explanatory variables:

$$U_{ij} = \beta_j \chi_i \qquad (2)$$

For Equation 2, χ_i are column vectors containing variables that describe participants and does not vary over marketing strategies. β_j represents row vectors which will vary for each marketing strategy, with one of these vectors arbitrarily being set to zero act as the reference marketing strategy. Each β_j describes for the characteristics of the business impacts the log-odds of preferring marketing strategy j over the arbitrarily chosen reference marketing strategy. This version of the model is equivalent to the multinomial logit model, but retains the title of '*exploded logit'* as the logic outlined above concerning the number of utility value observations remains intact (Allison & Christakis, 1994).

The random utility model thus defines the likelihood (L_i) value for a particular participant as being:

$$L_i = \prod_{j=1}^{j} \left[\frac{\exp\{\mu_{ij}\}}{\sum_{k=1}^{j} \delta_{ijk} \exp\{\mu_{ik}\}} \right] \qquad (3)$$

In Equation 3, δ_{ijk} = 1 if $Y_{ik} \geq Y_{ij}$, otherwise δ_{ijk} = 0.

With a dataset consisting of n unique participants, one can extrapolate from Equation 3 that the log likelihood of would be equal to:

$$\text{Log}\, L = \sum_{i=1}^{n} \sum_{j=1}^{J_i} \mu_{ij} - \sum_{i=1}^{n} \sum_{j=1}^{J_i} \log\left[\sum_{k=1}^{J_i} \delta_{ijk} \exp(\mu_{ik})\right] \qquad (4)$$

For Equation 4, the number of ranked marketing strategies (J_i) may vary across participants (e.g., one farm may only use word of mouth, while another may use print media, radio advertising and word of mouth). The linear model for the systematic component's (μ_{ij}) in Equation 2 is substituted into Equation 4, which can subsequently be maximized according to

the coefficient vectors. Equation 4 calculates a globally concave likelihood, which means that the maximum likelihood is unique and thus a global maximum, not simply a local maximum (Beggs et al., 1981).

It is possible to assume that given a choice between two marketing strategies, the preference for one strategy is not dependent on any of the other possible choices that have already been made (Allison & Christakis, 1994). Allison and Christakis (1994) refer to this as 'the choice set'. This condition is similar to the assumptions of 'independence from irrelevant alternatives', which is common in the multinomial logit model (Allison & Christakis, 1994). This is the reason for the assumptions attached to random component (ε_{ij}) of the utility value (U_{ij}).

The exploded logit model was selected to analyze the ranked data from the survey as it allows for the overall comparison of ranked marketing strategies across participants even though individuals may not rank the same number of strategies. The dataset consisted of incomplete (i.e. partial) rankings, as no single business used all of the marketing strategies present in the list. As such, if a participant ranked *n* strategies, the remaining unranked choices were all ranked as *n*+1. Covariance was also assessed by calculating a Wald chi-square matrix for all possible pairwise comparisons of the marketing methods.

Pearson's chi-square analysis was conducted in order to assess if the use of technology in marketing by direct-market farms varies by demographic variables. The three demographic variables that were included in this analysis were farm operator age, age of farm business, and number of employees. All demographic variables were converted to categorical variables. For farm operator age and age of farm business, the median values (49 and 15, respectively) for each variable was selected as the cutoff to separate respondents into the two categories. For the number of employees variable, farms were separated into small (i.e., two or fewer employees) and large (i.e., more than two employees) farms. All chi-square analysis was conducted using the SPSS® software package.

4.2.4.2 Qualitative Analysis

Qualitative analysis of open-ended survey questions was undertaken in order to contextualize the quantitative findings. Concurrent data collection approaches allow for triangulation

between qualitative and quantitative portions of the study, as they are typically conducted with the same sample population at the same time (Teddlie & Yu, 2007), enhancing the credibility and dependability of the study's findings (Baxter & Eyles, 1997). A mixed methods approach is considered appropriate for research which is not attempting to conduct complex qualitative and quantitative analysis (Driscoll et al., 2007), which is appropriate for this exploratory study into the marketing practices of direct-market farmers in SWO. Qualitative data were iteratively coded using a combination of different types of codes. Descriptive and in-vivo codes, which emerged directly from participants' responses were first used during first cycle (i.e., preliminary) coding (Cope, 2010; Saldaña, 2009). In order to further summarize and condense the codes, second cycle coding made use of analytic codes, which were drawn from previous studies of marketing strategies (Cope, 2010; Saldaña, 2009). The coding process was carried out following the quantitative analysis outlined above. The insights gained from the quantitative analysis also helped to shape the development and refining of codes into themes.

4.3 Results

A total of 99 farm owners responded to the survey (19.1% of farms contacted), of which 67 (12.9% response rate) were complete and free of errors. Respondents were excluded from the data set if they did not rank the marketing strategies they use, or failed to include important demographic questions, such as age, age of farm number of employees, products sold, etc. Survey respondents represented 12 counties and one regional municipality, with Middlesex and Elgin counties having the greatest number of responses (Table 4-1). Participating farmers had an average (mean) age of 47.64, which is lower than the age of the average Ontario farmer (54.5) (Statistics Canada, 2015b). Respondents owned farms that had been in operation for an average of 24.56 years, and employed a median average of 4 employees, most of whom were part-time or seasonal (Table 4-2).

Responding farms sold a diverse range of products, with vegetables being the most prevalent food group and sold by more than half of the farms (Table 4-3). Over 30% of farms also were engaged in some form of value-added retail with the sale of prepared foods, a category which includes: baked goods, beverages, condiments, preserves, and spices.

Table 4-1 – Survey Responses by County

Counties	Middlesex	Elgin	Chatham-Kent	Huron	Lambton	Grey	Perth	Essex	Bruce	Oxford	Brant	Norfolk	Total
Number of Respondents	9	9	8	7	7	6	6	5	4	3	1	1	67

Table 4-2 - Demographic Characteristics of Survey Respondents

	Mean	Median	Minimum	Maximum
Operator Age (years)	47.24	49	28	75
Age of Farm Operation (years)	15	15	0	150
Number of Employees	24.56	4	0	300

Table 4-3 - Products Sold

Products Sold	Vegetables	Meat, Poultry, & Eggs	Fruits & Nuts	Herbs	Prepared Foods	Dairy & Alternatives	Grains	Seafood
Number of Farms Selling	43	30	26	24	21	3	2	1
Percentage of Farms Selling	64.18	44.78	38.81	35.82	31.34	4.48	2.99	1.49

Similar to the diverse range of products offered, responding farmers also undertake a multitude of different marketing strategies to engage with consumers. The most used strategy was word-of-mouth (Table 4-4). Although Instagram represented the least used category in this analysis, the ‘Other’ category is comprised of a collection of different strategies which were only used by a maximum of two businesses.

Results will be presented in the following two sections. First, results of the quantitative statistical analysis examining relative preference in marketing strategies will be presented.

Next, the relationship between the use of technology for marketing and demographic variables will be examined. This will be followed by an examination of participants' qualitative responses explaining why direct-market farmers prefer to use specific marketing strategies.

4.3.1 Overall Marketing Preferences of the Study Population

The exploded logit model was used to estimate the differences in farmers' ranking of marketing strategies, assuming no differences among survey respondents. Although the reference category may be chosen arbitrarily, word of mouth was selected for this role as it was the most widely used marketing strategy. The Wald chi-square value for the model is 236.58 (df = 11, p = <.0001), which rejects the null hypothesis that there is no difference in how the surveyed farmers rank their preferences of marketing strategies. Table 4-4 shows the results of the model, revealing that, on average, word of mouth represents the most preferred marketing strategy, and Instagram the least preferred. Wald chi-square calculations revealed that each coefficient is significantly different from the reference category, with all p-values less than 0.001. Coefficients in Table 4-4 can be exponentiated to produce the odds of a farmer preferring a specific strategy relative to the reference category, word of mouth. For example, on average, the odds of a farmer preferring using a website to market their business are 0.38 times the odds of a farmer preferring to use a website. Conversely, the odds of preferring to use Instagram were 0.002 times the odds of preferring to use word of mouth. Although, Table 4-4 presents farmer's preference of marketing strategies relative to the control variable (i.e., word of mouth), it does not indicate the differences between each specific strategy. The contrast between preference for any two marketing strategies can be calculated by taking the difference between two item's coefficients and exponentiating that value (Allison & Christakis, 1994). This was done for all possible combinations, with Wald chi-square values calculated for each value, the results of which can be seen in Table 4-5. Of the 55 possible combinations of marketing strategies, 14 (25.45%) were not found to be statistically significant at all, while 34 pairs (61.81%) had a p-value less than 0.01. The largest difference among pairs was seen between preference for using 'Buy Local' maps over Instagram, with the odds of preferring a 'Buy Local' map being 31.19 times that of the odds of preferring to use Instagram. Similarly, most paired comparisons with Instagram revealed a statistically significant large odds preference for the alternative. Interestingly, no marketing

strategy other than word of mouth was statistically significantly different from every other marketing strategy.

Table 4-4 – Farmer Preferences for Marketing Strategies

Rank	Marketing Strategy	Coefficient	Exponent	Mean Rank	Number of Respondents Using Strategy	Percentage of Farms Using Strategy
1	Word of Mouth	0	1	2.56	62	92.54
2	Buy Local Map	-0.70***	0.49	3.96	54	80.6
3	Facebook	-0.82***	0.44	3.43	48	71.64
4	Website	-0.96***	0.38	2.56	41	61.19
5	Road Sign / Farm Gate	-1.11***	0.33	3.61	41	61.19
6	Farmers' Market	-1.34***	0.26	3.15	34	50.75
7	Print Media	-1.45***	0.23	4.29	34	50.75
8	Twitter	-2.29***	0.10	4.18	17	25.37
9	Chamber of Commerce	-2.72***	0.07	5.67	12	17.91
10	Radio	-2.85***	0.06	6.91	11	16.42
11	Other	-3.14***	0.04	5.00	8	11.94
12	Instagram	-4.14***	0.02	4.00	3	4.48
*** Significance level less than 1%.						

Table 4-5 – Marketing Strategy Differences

		Buy Local Map	Facebook	Website	Road Sign / Farm Gate	Farmers' Market	Print Media	Twitter	Chamber of Commerce	Radio	Other	Instagram
Buy Local Map	Δ		0.12	0.25	0.40 *	0.64 ***	0.75 ***	1.59 ***	2.02 ***	2.14 ***	2.43 ***	3.44 ***
	e		1.13	1.28	1.49	1.90	2.12	4.90	7.54	8.50	11.36	31.19
Facebook	Δ			0.14	0.29	0.52 **	0.63 ***	1.47 ***	1.90 ***	2.02 ***	2.31 ***	3.32 ***
	e			1.15	1.34	1.68	1.88	4.35	6.69	7.54	10.07	27.66
Website	Δ				0.15	0.38 *	0.49 **	1.33 ***	1.76 ***	0.95 ***	2.18 ***	3.18 ***
	e				1.16	1.46	1.63	3.78	5.81	2.59	8.85	24.05
Road Sign / Farm Gate	Δ					0.23	0.34	0.95 ***	1.61 ***	1.74 ***	2.03 ***	3.04 ***
	e					1.26	1.40	2.59	5.00	5.70	7.61	20.91
Farmers' Market	Δ						0.11	1.18 ***	1.38 ***	1.50 ***	1.79 ***	2.80 ***
	e						1.12	3.25	3.97	4.48	5.99	16.44
Print Media	Δ							0.84 ***	1.27 ***	1.39 ***	1.68 ***	2.69 ***
	e							2.32	3.56	4.01	5.37	14.73
Twitter	Δ								0.43	0.55	0.84 **	1.85 ***
	e								1.54	1.73	2.32	6.36
Chamber of Commerce	Δ									0.12	0.41	1.42 **
	e									1.13	1.51	4.14
Radio	Δ										0.29	1.30 **
	e										1.34	3.67
Other	Δ											1.01
	e											2.75

Δ = difference of coefficient, e = exponent of difference.

* Level of significance 10%, ** Level of significance 5%, *** Level of significance less than 1%.

4.3.2 Use of Technology for Marketing and Demographic Characteristics

To understand what demographic factors might influence the adoption of technological marketing strategies (i.e., Facebook, websites, Twitter, Instagram), Pearson's chi-square tests were conducted. Results indicated that there was not a statistically significant relationship between the use of technology to market and both the age of farmer ($X^2 = 1.298$, df = 1, p = 0.255), and the age of the farm business ($X^2 = 0.04$, df = 1, p = 0.950). Interestingly, a statistically significant relationship was found between the use of technology to market and the number of employees of a farm ($X^2 = 5.474$, df = 1, p = 0.019). Although other demographic variables were collected in the survey, including income and products sold, they could not be included for Pearson's chi-square analysis. Income was not included as less than half of all survey respondents opted to disclose their income. Although farms did disclose the products they sold, many farms were difficult to categorize due to their diverse range of products (e.g. they sold vegetables, eggs, and meat). As categories suitable for analysis could not be generated, these variables were not considered for statistical analysis.

4.3.3 Motivations for Marketing Strategy Preference

In addition to comparing how direct-market farmers ranked their marketing strategies relative to one another, farmers were asked to identify what they felt to be their most effective marketing strategy and explain why. The purpose of this approach was to understand if there were differences between reported frequency of use of specific marketing strategies and their perceived effectiveness. Just as the exploded-logit model revealed it to be the most used marketing strategy, word of mouth was also considered to be the most effective strategy by the largest number of farmers (Table 4-6). Other farmers also considered farmers' markets, websites, Facebook, road signage/farm gate sales, print media, and 'Buy Local' maps to be the most effective marketing strategy they used. One farm indicated that they preferred making cold calls to prospective customers, as this strategy was most effective for marketing products for export, which the respondent indicated was becoming a larger portion of their business' revenue. One survey respondent reported they were unsure which marketing strategy was their most effective.

Table 4-6 - Most Effective Marketing Strategy

Marketing Strategy	Count
Word of Mouth	36
Farmers' Market	8
Website	7
Facebook	6
Road Signage / Farm Gate	5
Print Advertising	2
Buy Local Map	1
Cold Calls	1
Uncertain	1

When describing why they felt a particular marketing strategy was more effective, farmers invoked one, or a combination of, five major themes. These themes, which will be discussed in the following sections, include: fostering connections and relationships, product quality, cost and convenience, location, and metrics of efficacy.

4.3.3.1 Fostering Connections and Relationships

The importance of interacting and engaging with consumers was the most pervasive theme emerging from farmers' explanations of why they found word of mouth marketing to be the most effective. An important consideration when using word of mouth for marketing is that it is not necessarily a quick way to grow a customer base. One farmer observed that they have no intention to grow rapidly, so relying on word of mouth and slowly building a customer base was enough for them. In order to capitalize on word of mouth spreading, farmers have to devote energy to developing relationships with each customer. In forming these relationships, farmers are able to capitalize on the extended social networks of their customers to draw in new clientele. As one farmer noted "friends telling friends about products is more genuine, [and] has a level of trust built in and can be viral". Establishing

trust appeared to be fundamental for most farmers who actively foster word of mouth marketing, as one farmer observed “we value a personal connection with our customers. We can learn a lot by listening to their needs. This creates a trust relationship that our customers then recommend to neighbors and friends”.

Those farms who felt Facebook was their most effective marketing strategy also valued the interactions they could enjoy with customers. One farmer noted that they “usually see the most engagement from Facebook, whether it's comments, shares, likes, etc.”, while another observed that Facebook allows them to “easily engage the consumer”. Although Facebook can serve as a platform for social interactions, there may also be barriers to farmers who wish to adopt it. One respondent noted “I keep hearing that I need to make it [Facebook] a priority and I plan to do so when I get some help here”. Therefore, while social media platforms offer farmers new ways of connecting with consumers, a lack of knowledge and resources may discourage some farmers from adopting newer forms of technological marketing, like social media.

4.3.3.2 Product Quality

The second most prevalent theme among farmers describing their most effective marketing strategy was the importance of the quality of their products. Product quality was viewed as important in drawing in customers at farmers’ market and served as an important motivator for attracting repeat customers. One farmer noted that “testimonials as to the quality and taste of our produce sells the product the best. Our best customers are not new customers, but people who have already sampled our lettuce/cucumbers/carrots and come back for more”. Farmers noted that at farmers’ markets customers are drawn to their stall; as one farmer put it, customers “can see what we have to offer, and can meet us in person”. Similarly, product quality also was reported to play an important role in facilitating word of mouth marketing. Without a top-quality product, word of mouth marketing would be ineffective. One farmer observed that “chefs tend to tell [others] where they get the best product. If I get a new restaurant it [is] because the some other restaurant is using my product”. Thus, product quality may be seen as a pre-cursor to establishing other effective marketing strategies.

4.3.3.3 Cost and Convenience

Farmers also expressed the import role of cost and convenience in choosing their marketing strategies. Word of mouth marketing was seen as invaluable for farmers on a number of fronts. As one farmer observed, word of mouth is the "cheapest form and most simple form of advertising". Having a limited marketing budget was noted by several respondents, for example one farmer noted "we have a marketing budget of about $250.00/year yet we are widely recognized by people seeking out artisan cheese". Farmers also praised the potential of Facebook as a marketing tool which can be a cost-effective strategy to use. As a communication platform, Facebook allows farmers to communicate "directly and efficiently" with customers as well as "promote content into targeted ads". This was especially useful in communicating temporally sensitive information, such as crop updates. Several farmers characterized their websites as being convenient marketing tools because they serve as an easy to find information source that can act as a storehouse for important business information, like hours of operation and product descriptions.

4.3.3.4 Location

A fourth emergent theme in farmers' descriptions of their marketing strategies was the importance of location in marketing their products and business. Location was a particularly important factor for those who felt that road signage and/or farm gate stalls were their most effective marketing strategies. One farm reported having purchased a new sign for the 2015 growing season and through polling his customers noted it was "the simple but effective road sign that caught their eye" and drew them in. Interestingly, farmers who found road signs to be their most effective marketing strategy also reported being in close proximity to high volume roadways. Word of mouth was also framed as a location-sensitive marketing strategy, as one farmer noted "I market only to people in my community and it is a small community". Therefore, engaging in larger marketing campaigns may not be seen as necessary for some direct-marketers. 'Buy Local' maps also offer location-specific marketing as they typically represent farms and food businesses in a single county. The farm reporting that the 'Buy Local' map was their most effective marketing strategy noted that it had a wider marketing reach than any other strategy they use, allowing for residents outside of the area to find the farm.

4.3.3.5 Metrics of Efficacy

The fifth and final major theme that farmers reported as being important to their marketing efforts was a lack of concrete metrics for monitoring marketing efficacy. Most farmers reporting word of mouth as their most effective marketing strategy noted that the only metrics they had to support this belief were anecdotal in nature. Those who felt farmers' markets were more effective typically relied on sale volumes and the frequency of interactions with customers as proof of the strategies efficacy. However, those who preferred strategies that use technologies such as websites or Facebook were able to track more concrete metrics which justified their decision making. Websites, it was noted, could be used to monitor web traffic and sales leads stemming from the site. Meanwhile, Facebook offered many metrics to monitor marketing impact in the form of 'likes', customer comments, and people sharing content.

4.4 Discussion

The survey revealed that word of mouth plays an overwhelmingly large role in marketing the products and businesses engaged in direct-market farming in SWO. Respondents not only identified a diverse range of marketing strategies which they use to connect with consumers, but explained why specific strategies were more effective than others. In doing so, these farmers identified several key characteristics that define their overall marketing ethos.

Word of mouth represented the most used, most preferred, and most effective marketing strategy among the group of direct-market farmers surveyed. Farmers indicated the odds of preferring word of mouth were twice as great as the next most preferred marketing strategy ('Buy Local' maps). This finding is consistent with previous literature identifying word of mouth as one of the most pervasive forms of marketing that local food vendors use (Dougherty & Green, 2011; Grimsbo Jewett, Nelson, & Braaten, 2007; Hultine et al., 2007; Hunt, 2007; Xuereb, 2005). Farmers also noted the importance of creating relationships with consumers in order to facilitate word of mouth marketing. Previous research has noted the important role that trust plays when interaction relationships exist between vendors and consumers (Brodie, Coviello, Brookes, & Little, 1997; Zontanos & Anderson, 2004). Trust, in turn, is considered an important aspect of building a loyal customer base (Zontanos & Anderson, 2004). The direct-market farms surveyed are trying to capitalize on these loyal

customers' extended social spheres. These spheres consist of strong and weak social ties, with weak ties playing an important role in the diffusion of new ideas between different social groups (Granovetter, 1973), while strong social ties can be more impactful in terms of word of mouth communication (Carl & Noland, 2008). Taken together, the diffusion of word of mouth through a loyal customer's strong and weak social ties has the potential to greatly increase the overall marketing reach of a farm.

It is also important to remember that marketing strategies are not solely for the purpose of uni-directionally pushing messages out to consumers, as they may also serve other functions. Survey respondents indicated the importance of engaging in conversations, particularly to learn about the needs of their customers. Other researchers have noted that such interaction with consumers can serve as information-gathering opportunities for the producer (Glowacki-Dudka, Murray, & Isaacs, 2012). This may help farmers to gauge interest for new products (e.g., new vegetables, preserves, etc.), and potentially help their business grow.

An important consideration for many farmers engaged in word of mouth marketing was the notion of quality. Research suggests that local food consumers place a high value on product quality (Schneider & Francis, 2005; Sundbo, 2013; Wolf, Spittler, & Ahern, 2005), so vendors' emphasis on quality may at least partially stem from this demand. Further, farmers reported striving to offer high quality products in order to increase the likelihood of success of other marketing strategies. For example, offering quality produce was seen as increasing the likelihood that customers would promote the business to their extended network of social ties. In this way, product quality may be seen as a method of triangulation to augment word of mouth marketing. Previous research has noted the importance of the 'richness of the message' being exchanged in word of mouth advertising, which is impacted by factors like how vivid the message being shared is (Mazzarol, Sweeny, & Soutar, 2007). By offering the best possible quality products, direct-market farmers can be seen as shaping the type of message, as well as increasing the likelihood that their customers will share that message via word of mouth (Mazzarol, Sweeny, & Soutar, 2007). Additional research has shown that word of mouth receivers are more likely to utilize shared knowledge when the messages is rich and they trust the person sharing the message (Sweeny, Soutar, Mazzarol, 2008). Thus, product quality serves multiple important functions in the marketing local food.

Although other forms of social media (i.e., Twitter and Instagram) were less popular among the group of direct-market farmers surveyed, Facebook played a prominent role in many farmers' marketing efforts. Social media presents local food businesses with several marketing opportunities, including posting timely content and facilitating conversations to engage new and existing customers (Cui, 2014). However, facilitating dialogue on social media presents unique challenges, which may contribute to why some forms of social media (i.e., Twitter and Instagram) have not been very widely adopted. Mangold and Faulds (2009) note that with social media, the marketer no longer has exclusive control over the dialogue. Mangold and Faulds (2009) also submit that ceding some control by engaging in social media is preferable to withdrawing completely and not having any control over marketing communications online (Mangold & Faulds, 2009). Social media platforms like Facebook may also offer other benefits to farmers, as electronic word of mouth may be equally as influential as word of mouth that is spread among friends (Steffes & Burgee, 2009). Direct-market farmers may be able to capitalize on this by carefully curating social media accounts and using them as forums where customers can interact not only with the farmer, but also with other customers.

Some survey respondents noted they felt that having a social media page was important despite not yet having a page for their business. Fear of 'missing out' by failing to adopt social media is common among small-to-medium sized businesses, as this has been found to be a major motivator for its adoption (Durkin, McGowan, & McKeown, 2013). However, one respondent highlighted a lack of knowledge of how to use social media and expressed a desire to have another individual oversee that portion of the business' marketing strategy. Interestingly, the use of technology for marketing was not significantly related to farm or farmer age, suggesting that older farmers were no less likely to use marketing technologies than their younger colleagues. This is consistent with previous research finding that age is not associated with adoption of computing technology by farmers (Baer & Brown, 2005, Mishra & Park, 2005). Conversely, there was a significant relationship between the use of technologies for marketing and the number of employees. It is possible that businesses with more employees have more time to dedicate to these technologies. This insight, coupled with the relatively low use of social media platforms like Instagram and Twitter, highlights a

potential need for greater marketing education and resources among direct-market farmers, especially for newer marketing technologies.

A small group of the farmers who were surveyed indicated that road signage and farm gate stalls were their most effective marketing strategy. These individuals noted the important role that location plays in marketing their farm and products. The importance of location in local food marketing has also been noted from the consumer perspective, as location can influence a consumer's decision to buy from local vendors (Thilmany et al., 2008). Previous research examining business location choice in small-to-medium sized businesses found that business owners are more likely to base location decisions on personal factors (e.g., proximity to home) than on site-specific competitive advantages (e.g., proximity to transport routes) (Mazzarol & Choo, 2003). Although farmers noted that signage and farm stalls were effective in areas close to high traffic roads, these particular strategies appear to have arisen more out of convenience than through strategic location planning.

Although those farms who found websites and Facebook to be their most effective marketing strategy were making use of metrics to monitor marketing efficacy, many other farmers reported using a more anecdotal approach. This aligns with previous research showing that small-to-medium sized firms who are customer-oriented, as opposed to business-oriented, are less likely to put substantial efforts into collecting and using customer information for the purpose of marketing (Reijonen & Laukkanen, 2010). This may be attributed to the fact that smaller businesses often do not have the necessary knowledge or resources to engage in marketing in the same way or to the same extent that larger companies are able to (Gilmore et al., 2001). This may also influence farmers' decisions to pursue marketing strategies which they consider to be the most convenient. Previous observations among direct-market farmers suggest that similar forces may be at work among small-to-medium businesses and farmers. In particular, the necessity of having to grow and sell their bounty forces farmers to make difficult sacrifices in either production, retail or both (Bloom, 2012; Griffin & Frongillo, 2003; Tippins et al., 2002).

4.5 Conclusions

This research builds on previous studies examining direct-market farmers by focusing on their marketing strategies. This study complements and expands upon the existing marketing

studies that have been conducted with local food consumers, by adding much needed vendor perspectives. Using a mixed methods approach, this paper has highlighted the diverse range of marketing strategies that are being employed by direct-market farmers in SWO.

This study not only documented specific marketing strategies, but also revealed important underlying motivations for using particular marketing strategies. Farmers acknowledged the importance of connecting with consumers and offering quality products. Further, farmers also raised the importance of using cost-effective marketing strategies which were convenient to use. Many farmers noted the anecdotal nature of their efforts to monitor marketing strategies, but several farmers highlighted the potential that newer technologies (e.g. websites and Facebook) offer farmers in terms of generating concrete metrics.

Although this study examined how farmers prioritize their marketing, it did not take into consideration how the use of specific marketing strategies impacted marketing and overall financial success. Future research could also look at seasonal variability affects marketing activities for farmers, by examining what strategies farms use to market themselves when they do not have a product to sell (e.g. winter). Other authors have observed that 'off season' periods may be used to build and nurture relationships (Zontanos & Anderson, 2004), but currently no such information exists on the practices of direct-market farmers. Further, although location was raised as an important component of various farmers marketing strategies, the degree to which strategic location planning plays a role is still unclear. Future studies examining location choice for farmers engaging in off-farm sales (e.g., roadside stalls or farmers' markets), could help shed light on the factors involved in choosing marketing locations for direct-market farmers. Additionally, the importance of word of mouth and fostering social connections was highlighted in this study. However, future research should seek to better understand how the social ties and information sharing networks are formed.

The survey used for this paper only captured the perspectives of 67 farms in a region with hundreds of direct-market farms. Thus, the opinions presented about marketing may not be reflective of all the direct-market farmers in SWO. It is also possible that in primarily recruiting participants through e-mail, the responding farmers may represent a more technologically literate population of the SWO farming community, and thus the value

placed in internet marketing strategies (e.g., Facebook, Twitter, and websites) may be greater than exists among the broader population of farmers in the region.

This research highlights a need for greater educational outreach for direct-market farmers in SWO regarding on marketing strategies in general. Specifically, developing programming to educate the use of newer marketing technologies and social media tools could greatly increase their adoption, potentially improving the marketing reach of these farmers. By better understanding farmers' interactions with consumers and their motivations for utilizing certain marketing strategies, more appropriate programming can be delivered by government and farming organizations to address knowledge and resource deficiencies which hinder direct-market farmers from utilizing the most effective marketing strategies for strengthening and growing their business.

In order to grow and strengthen the LFS, we need to better understand current practices to help generate realistic future goals. By understanding how direct-market farmers market themselves and their products, knowledge gaps can be addressed and the overall reach of LFS can be increased. This requires an intimate understanding of both producer and consumer practices and preferences. Taken together demand can be increased for local food and these systems of production can become more sustainable and resilient.

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Chapter 5

5 Discussion and Conclusions

This chapter will summarize and synthesize the main findings from chapters 3 and 4. Additionally, this chapter will identify the specific contributions the studies have made to research on local food systems, specific methodological limitations of the thesis, and recommendations for potential further research to expand upon the lessons learned from this thesis research. Finally, this thesis concludes with a reflection on potential policy implications that have emerged from the research findings and some concluding remarks.

5.1 Summary and Synthesis of Manuscripts

This thesis examined the marketing practices of local food businesses in the Southwestern Ontario (SWO) local food system (LFS). Chapter 3 examined the perceptions of actors in the SWO LFS toward developing technological tools to help promote local food businesses and strengthen the LFS. Building on this, chapter 4 presented research investigating the marketing motivations and practices of direct-market farmers in SWO. By understanding the extent of the current marketing practices of local food businesses, new initiatives, such as smartphone applications and web-based tools, can be developed which can be integrated into existing marketing strategies.

Focus group participants displayed general enthusiasm toward the prospect of developing new technologies for marketing local food businesses. This may partially be due to the important and pervasive role that existing technologies such as Facebook and personal websites currently play in direct-market farmers' current marketing strategies. Interestingly, more recently developed social media sites, such as Instagram, and Twitter, were significantly less likely to be preferred by direct-market farmers, revealing that there are differences in how technologies are adopted by local food businesses. Among the demographic variables analyzed, it was found that farm and farmer age were not significantly associated with the adoption of marketing technologies, while the number of farm employees was.

Many focus group participants saw opportunities to use technology to forge new connections between producers and consumers. This desire to interact with consumers was prominently displayed in the survey results, where direct-market farmers stressed the fundamental importance of interacting with consumers for marketing their products. This was highlighted by the overwhelming popularity of the word of mouth marketing strategy and the premium value that direct-market farmers place in fostering meaningful relationships with their customers.

Focus group participants expressed a desire for more metrics to monitor marketing reach and better inform business practices. This was supported by findings from a survey of direct-market farmers who indicated that monitoring the efficacy of marketing efforts was mostly informed by anecdotal evidence. Thus, new forms of technology, such as smartphone applications, may be able to offer local food business owners the necessary information (e.g., consumer demographics) to make informed decisions in how to manage their business effectively.

Finally, focus group participants also highlighted the potential barriers adopting new promotional technologies for the SWO LFS and insisted that any new technologies be as inclusive as possible for both consumers and vendors. Similar sentiments were also shared by direct-market farmers, who indicated that although they recognized the value of newer technologies (such as Facebook), they lacked the skills and knowhow to utilize them.

5.2 Contributions

Overall, this research makes five distinct contributions to academic and pragmatic dialogues. The two studies included in this thesis borrow theoretical inspiration from two emerging spheres of inquiry. Practice oriented research and relational research have both risen to prominence over the previous two decades as tools used by economic geographers (Bathelt & Glückler, 2003; Jones & Murphy, 2010). A practice oriented approach posits that ‘everyday activities’ can be viewed as “repositories of tacit forms of knowledge” (Jones & Murphy, 2010:370). However, practice oriented research is not merely concerned with documenting economic actors actions, but focuses on those practices that contextualize these actors decisions (Callon, 1998) and facilitate the development of new theories (Jones & Murphy, 2010). This research follows this line of inquiry, by not merely documenting the different

strategies used by direct-market farms, but exploring the underlying motivations behind why specific strategies are used. Meanwhile, a relational approach focuses how social actors interact with others (Bathelt & Glückler, 2003; Boggs & Rantisi, 2003). Although relational approaches have been widely used in various studies of local food systems (Feagan & Morris, 2009; Feagan, 2007; Hinrichs, 2000; Migliore, Caracciolo, Lombardi, Schifani, & Cembalo, 2014; Murdoch, Marsden, & Banks, 2000; Winter, 2003), examples of combined practice oriented, relational approaches are sparse. Thus, as marketing activities can be conceptualized as interactions between producers and consumers, blending a practice oriented approach with a relational approach facilitates the construction of context-rich understandings of marketing activities in LFSs.

This thesis revealed that marketing activities in the SWO LFS are largely driven by a desire by business owners to forge meaningful connections with consumers. The importance of producer-consumer connections in LFSs has been well documented (Glowacki-Dudka, Murray, & Isaacs, 2012; Griffin & Frongillo, 2003; Lyson, Gillespie, & Hilchey, 1995; Smithers, Lamarche, & Joseph, 2008). Many direct-market farmers reported that they take time to develop these relationships, perhaps due to the importance of word of mouth in marketing their products. Interestingly, focus group participants expressed a great deal of interest in recreating opportunities for producers and consumers to interact in digital spaces via new technologies. These interactions serve multiple functions, from generating consumer feedback for producers (Broderick, Wright, & Kristiansen, 2011), to consumers gaining a better appreciation for where their food is coming from (Feagan & Morris, 2009; Hunt, 2007).

Although the importance of social relationships was highlighted in both research chapters, results from the survey also revealed that direct-market farmers utilize a hybrid marketing strategy. Direct-market farmers can be thought of as possessing a diverse marketing ‘toolkit’, which also makes use of more traditional transactional marketing practices, such as print and radio advertisements. This echoes literature studying small-to-medium sized enterprises (SMEs), who also have been observed to use a continuum of transactional, relational, and hybrid marketing strategies (Coviello et al., 2002). Similarities between local food businesses and farms extend into other avenues of marketing as well, namely in decision making. Results from chapters 3 and 4 show a desire for more metrics to help improve decision-

making on the part of direct-market farmers and local food businesses. This is paralleled by the observation that SMEs similarly base marketing decisions on fewer resources (Coviello et al., 2000; Gilmore, Carson, & Grant, 2001). Understanding how direct-market farms and SMEs differ and relate to one another may help in developing more effective marketing practices, and may even encourage the borrowing of strategies from relevant sectors.

Another important contribution of this research highlighted a major barrier to local food initiatives in general in the SWO region, even though this was not one of the objectives under investigation. Despite the important role that social ties play in marketing local food, this study supports previous research suggesting the low amount of food activity in SWO counties may be attributed to a vacuum of leadership and low levels of social capital in the region (Nelson, Knezevic, & Landman, 2013). This comes as a surprise given the important role that social ties play in the marketing practices of direct-market farmers. It may be that local food businesses are overly focused on relationships with consumers, and do not have the necessary opportunities to build similar social capital with other businesses. It is the social capital that these business-to-business interactions produce which strengthen ties between social actors in the LFS and thus, strengthen the network overall (Glowacki-Dudka et al., 2012).

This research also adds to the limited body of knowledge surrounding local food marketing from the vendor/producer perspective. A large body of knowledge exists surrounding the characteristics, motivations, and practices of local food consumers (Conner, Montri, Montri, & Hamm, 2009; Feagan & Morris, 2009; Nganje, Hughner, & Patterson, 2014; Pearson et al., 2011; Toler, Briggeman, Lusk, & Adams, 2009; Weatherell, Tregear, & Allinson, 2003; Wolf, Spittler, & Ahern, 2005). This is understandable, given that it is the consumer who ultimately makes the purchase, but little research has been conducted to examine how these transactions are facilitated, and how farmers market themselves. By understanding the practices of individual businesses and their underlying motivations for undertaking them, appropriate tools can be developed to help improve marketing their marketing efforts.

5.3 Limitations and Future Research

This thesis research has some methodological limitations that are worth noting. One of the primary limitations of the two papers included in this thesis is that the collected data was part

of a larger, multi-disciplinary research project which sought to serve multiple outcomes. As such, the focus groups and survey instrument used to collect data for this thesis were designed with multiple objectives in mind. The overall size of the survey may have partially contributed to the relatively low response rate and in some individuals skipping certain questions, namely farm income. This ultimately limited the type of analysis that could be conducted.

Additionally, the research team consciously chose not to use recording devices during focus groups due to logistical issues (e.g., multiple individuals simultaneously speaking in a relatively small space), and instead opted to capture individuals opinions on notepads positioned at the front of the room and from individual's workbooks. Although placing notepads at the front of the room allowed for member checking (Baxter & Eyles, 1997), it is possible that some individual's contributions were modified by members of the research team when transferring participant's ideas onto the notepad. It is recommended that future focus group research combine the use of recording devices with large notepads to ensure that participant's exact thoughts are preserved, while simultaneously engaging in member checking.

Both studies had relatively small study sizes, with only 85 individuals taking part in focus groups, and 67 farmers completely filling out a survey. Although these sample sizes were sufficient enough to reach thematic saturation, the transferability of the findings beyond the study area may be poor. Further, the predominant use of qualitative methods was carefully selective for its ability to construct context-specific knowledge (Bradshaw & Stratford, 2010). Thus, the scale of the analysis should be carefully considered before trying to apply findings to other geographic areas. Future studies might seek to address this limitation by increasing the scale of analysis and examining whether regional differences in marketing practices exist.

Similarly, participants from both studies may be more likely to prefer technologies for marketing due to the nature of the recruitment process. For the focus groups, when potential participants were contacted, they were informed that the focus groups would be exploring the potential use of new technologies to promote the LFS in SWO. This may have led those who did not feel they knew enough about new technologies to self-select themselves out of the

study, creating a group of participants who were more enthusiastic about the use of technology. Similarly, by administering the survey online, those respondents who were uncomfortable with internet use might have abstained from participating. Research suggests that older farmers with more years of farming experience are less likely to use computers or the internet (Briggeman & Whitacre, 2010). This raises the possibility that older farmers, with a wealth of marketing experience, may not have been able to participate in the study. Given that internet and smartphone technologies are nearly ubiquitous in Canadian society, it is unlikely that this segment of the population would be large. Nevertheless, future studies involving direct-market farmers might seek to host face-to-face interviews or focus groups in partnership with other events, such as farm organization meetings, in order to attract a more diverse cross-section of participants. Furthermore, when possible, administering surveys by phone, or alternatively by mail, might ensure a higher response rate (Heiervang & Goodman, 2011).

5.4 Policy Implications

By establishing empirical evidence for the marketing practices of businesses in the SWO LFS, this research could help to strengthen existing legislation, such as Ontario's Local Food Act, which has the mandate to grow the local food economy and increase awareness of local food (*Bill 36*, 2013). In particular, this research highlights a need for more education for both consumers and producers in the SWO LFS. First, raising the local food literacy level of consumers was perceived to be a major determinant of increasing the efficacy of marketing efforts by LFS actors in SWO. It was felt that if consumers had a better grasp of important concepts, such as the seasonality of specific fruits and vegetables and how to prepare certain food items, demand for local food would rise. Such initiatives could include making online resources available that are specifically targeted toward adults and children, and mandating food and nutrition classes as part of public education curriculum.

Similarly, this research revealed that several forms of newer marketing technologies are being under utilized in the study area. By offering educational programs on marketing with a particular focus on new technologies, local food businesses would have the necessary skills to extend their marketing reach in a cost-effective manner. Further, new policies might seek to incentivize collaborative marketing efforts among local food businesses in the same

geographic region. This is already being done at the county scale with various ‘Buy Local’ maps, but by combining resources it is possible that local food businesses could attempt this at a smaller scale with nearby businesses. Schmit and Gómez (2011) suggest that cross-promoting complementary businesses, such as wine and cheese producers, could help attract more customers.

Another important finding from this research was the vacuum of leadership in the SWO LFS. Local governments or other agri-food organizations in the area need to increase the connectivity of the SWO LFS. Creating networking events which bring together regional LFS actors could help to unify networks through the creation of social capital (Glowacki-Dudka et al., 2012). This could also lead to increased opportunities for collaborative marketing endeavors.

Ontario’s three accredited farm organizations (i.e., Christian Farmers Federation of Ontario, National Farmers Union - Ontario, and Ontario Federation of Agriculture) would serve as logical stewards to deliver the policy targets mentioned above, as each organization is composed of smaller groups which work at more localized scales. In fact, appointing specific representatives within each organization would help to ensure the needs of direct-market farmers are being dealt with. These representatives might be charged with delivering appropriate programming to both farmers and consumers to improve the overall marketing efficacy of direct-market farms. By addressing these targets, the LFS in SWO could continue to grow and strengthen, sustaining the livelihoods of the farmers, associated businesses, and extended networks.

5.5 Conclusion

By utilizing practice oriented relational approaches to understand the marketing strategies and preferences of local food business in SWO, this research generated richer understandings of the social relationships behind producer-consumer marketing interactions. This approach facilitated the examination of important themes related to marketing at both macro and micro scales within the LFS in SWO. This research explored the role that technology might play in creating a new arena for these social interactions. Combining the two studies, this research also highlights the ways in which new technologies might fit within the existing marketing strategies of local food businesses. With this knowledge, appropriate technologies and

initiatives can be developed, which help to improve the livelihoods of businesses within the SWO LFS. Ultimately, in concert with other efforts, improving the marketing strategies of local food businesses can help to grow and strengthen LFSs while continuing to facilitate social connections between a diverse range of social actors.

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Appendices

Appendix A - Ethics Approval

Western Research

Research Ethics

Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Jason Gilliland
File Number:103856
Review Level: Delegated
Approved Local Adult Participants: 240
Approved Local Minor Participants: 0
Protocol Title: Development of a smart phone 'app' to examine the influence of a spatially and temporally targeted intervention on food purchasing, diet, and food literacy.
Department & Institution: Social Science\Geography,Western University
Sponsor:
Ethics Approval Date: July 24, 2013 **Expiry Date:** September 30, 2013

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Instruments		
Instruments		

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

[redacted]

Ethics Officer to Contact for Further Information

Grace Kelly [redacted]	Vikki Tran [redacted]	Shantel Walcott [redacted]

This is an official document. Please retain the original in your files.

Western Research

Research Ethics

Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Jason Gilliland
File Number:103856
Review Level: Delegated
Approved Local Adult Participants: 240
Approved Local Minor Participants: 0
Protocol Title: Development of a smart phone 'app' to examine the influence of a spatially and temporally targeted intervention on food purchasing, diet, and food literacy.
Department & Institution: Social Science\Geography,Western University
Sponsor:
Ethics Approval Date: August 26, 2013 **Expiry Date:** September 30, 2014

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Revised Study End Date	The study end date has been extended to September 30, 2014 to allow for project completion.	

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The NMREB is registered with the U.S. Department of Health & Human Services [redacted]

Ethics Officer to Contact for Further Information

Grace Kelly [redacted]	Vikki Tran [redacted]	✓ Erika Basile [redacted]

This is an official document. Please retain the original in your files.

Western Research

Research Ethics

Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Jason Gilliland
File Number:103856
Review Level: Delegated
Protocol Title: Development of a smart phone 'app' to examine the influence of a spatially and temporally targeted intervention on food purchasing, diet, and food literacy.
Department & Institution: Social Science\Geography,Western University
Sponsor:
Ethics Approval Date: February 26, 2014 **Expiry Date:** September 30, 2014

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Instruments	Vendor Short Survey	
Recruitment Items		
Revised Western University Protocol		
Letter of Information & Consent		
Other	Email summary from PI	

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

[redacted]

Ethics Officer to Contact for Further Information

Grace Kelly	Vikki Tran	Mina Mekhail	Erika Basile
[redacted]	[redacted]	[redacted]	[redacted]

This is an official document. Please retain the original in your files.

Western Research

Research Ethics

Western University Non-Medical Research Ethics Board
NMREB Amendment Approval Notice

Principal Investigator: Dr. Jason Gilliland
Department & Institution: Social Science\Geography,Western University

NMREB File Number: 103856
Study Title: Development of a smart phone 'app' to examine the influence of a spatially and temporally targeted intervention on food purchasing, diet, and food literacy.
Sponsor:

NMREB Revision Approval Date: November 10, 2014
NMREB Expiry Date: May 31, 2020

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Revised Study End Date	The study end date has been revised to May 31, 2020. The study approval has been granted from September 30, 2014 to May 31, 2020.	
Instruments		
Instruments		
Instruments		

The Western University Non-Medical Science Research Ethics Board (NMREB) has reviewed and approved the amendment to the above named study, as of the NMREB Amendment Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Ethics [redacted]

Ethics Officer to Contact for Further Information

Erika Basile [redacted]	√ Grace Kelly [redacted]	Mina Mekhail [redacted]	Vikki Tran [redacted]

This is an official document. Please retain the original in your files.

Appendix B - Focus Group Workbook

Type of Business/Affiliation: _____ Date: _____

AGENDA

Purpose

To get input from you--local food providers and stakeholders--and others who want to expand their reach by using our website and app so we can design our tool in a way that helps grow the local food economy.

Outline

Introductions **(10 minutes)**

- Who are we?
- What are we doing here?

Break-Out Discussion #1 – Is this app & website needed? What should it do? **(20 minutes)**
Sub-questions on page 2-3

Full Group Discussion #1: **(10 minutes)**
Full group sharing of ideas. Discussing some of the key concerns/opportunities.

Break-Out Discussion #2 – How should the app & website work? **(20 minutes)**
Sub-questions on page 4-5

Full Group Discussion #2: **(10 minutes)**
Full group sharing of ideas. Discussing some of the key features and priorities.

Re-cap **(10 minutes)**
Concluding remarks that ensure mutual understanding. Share timelines for project (including the addition of their input) and when they should expect to 'add' themselves to the tool.

Please feel free to help yourself to the food and drink at any time during the event.

Thank you for attending!

WORKBOOK

We want to ensure that we get input from as many people as possible. During the workshop we will break into smaller group table discussions and as a group you will discuss some questions and present back to the whole group. However, if you have individual feedback that you would like to give, please use this worksheet to provide your individual comments below.

Break-Out Discussion #1

Is this app and website needed? What should it do?

How can this complement and work with other existing initiatives?

What type of customers do vendors want to reach using the app and website?

What type of vendors (farmers, artisans, restaurants, retail stores, etc.) should be included?

Other Comments

Break-Out Discussion #2

For vendors, how should the app / website work?

What information about vendors and products should be included on the app and website?

How should this be kept up to date, and accurate?

How should we track customers using the app to find and shop at local vendors?

Other Comments

Thank you!

Appendix C - Farmer Survey

Letter of Information

Dear Local Food Providers,

We invite you to participate in a new project called “SmartAPPetite”. To foster greater resilience in the local food economy and strengthen growing local food networks, our goal is to connect local consumers with local farmers, food producers and retailers. Through the use of a smartphone application and website, users involved in SmartAPPetite will be able to get healthy eating tips and locate local farms and businesses with an up-to-date interactive electronic app and map.

What is SmartAPPetite?

SmartAPPetite is a smartphone application (app) that delivers messages about local food. The goals of SmartAPPetite are to encourage users of the app to buy healthy, local foods and achieve their personal food-related goals. Throughout the study the app will provide participating users with short ‘tips’ about health benefits of specific foods, healthy recipes using those foods, and timely information about local foods available in season. Participating local farmers, food producers and retailers can also use the app to promote products or advertise product sales. The initial testing phase of this project will run for approximately 10 weeks, during which time we will study the use and effectiveness of the app and learn how to make it more effective.

Who is SmartAPPetite?

The project is a Labour Market Partnership of the London Training Centre, funded by the Ministry of Training Colleges and Universities. SmartAPPetite is staffed by a team of university and community partners, including research support from Dr. Jason Gilliland and his Human Environments Analysis Laboratory at Western University, Dr. Colleen O’Connor from Brescia University College, and Dr. Sean Doherty from Laurier University. We bring expertise on food systems development, nutrition, app development, and social research.

How will this project affect me and my business?

This project provides free targeted advertising and has the potential to expand your permanent customer base. We do not intend to charge any fees, and are in the process of developing a sustainability plan for the app. We are interested in working with you and finding out how such a technology can help you meet your business goals, grow your customer base and sell more food, but recognize the importance of making this project economically viable as a free marketing tool.

What do I have to do to be involved?

Involvement is easy and can vary depending on your available time. We first invite you to fill out this short online survey that will allow us to understand your business and its needs. We would also like to know your feedback as we progress with the study. All of the questions we ask are directly relevant to helping us understand the local food providers who join the app, and will inform our economic sustainability plan. If you would like to get more involved in sharing your experience and tell us how we can help you, we invite you to provide your e-mail address as you fill out the survey (last question on survey) and we will send you updates as the project progresses.

Thank you for participating!

Consent Form for Survey

Thank you for your consideration in participating in the 'SmartAPPetite' project. This document contains a short survey that will help us better understand what priorities you may have in a smartphone app designed to increase purchasing of local food.

Before continuing, please read the information below.

Participation in this study is voluntary. There are no risks of participation in this study, nor is there any requirement to participate. You may refuse to participate, refuse to answer any particular questions, or withdraw from the study at any time with no repercussions. All study participants will remain anonymous. All information collected will be kept confidential and used only for the purpose of this study. The survey will take around 15-20 minutes.

If you have any questions about this study, please contact the Director of the Office of Research Ethics at The University of Western Ontario at [redacted] or e-mail [redacted]. Additionally, you may keep this letter of information for your records if desired. You may also make general inquiries about this survey to the researchers by e-mailing [redacted]. If you do not wish to participate, or if at any time you wish to withdraw from the study, simply discard the survey and do not return it to. Your results will be destroyed and there will be no repercussions. If you do wish to participate, please read the following consent statement: "I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction."

Thank you for your time and participation.

SIGNATURE OF RESEARCH PARTICIPANT

I have read the Information/Consent document, I have had the nature of the study explained to me, I am 18 years of age or older, and I agree to participate. All questions have been answered to my satisfaction.

Name of Participant: _____ Date: _____

Signature: _____

1. What is the name of the business you represent?

   _____

2. Please provide a brief description of your business: (This will be displayed to SmartAPPetite users when they are searching for local food vendors) Limit: 250 Characters.

   _____

   _____

   _____

   _____

3. How many permanent locations does the business operate from? _____

4. Please fill in the following information for each of the permanent location:

		Primary Location	Location 2	Location 3
Street Address:				
City/Town:				
Postal Code:				
Hours of Operation	Monday:			
	Tuesday:			
	Wednesday:			
	Thursday:			
	Friday:			
	Saturday:			
	Sunday:			
Activities performed at this location	Production:	❑	❑	❑
	Storage:	❑	❑	❑
	Retail:	❑	❑	❑
	Packing & Shipping:	❑	❑	❑
	Administration:	❑	❑	❑
	Other (specify): _____	❑	❑	❑

Note: If you have more than three locations, please provide that information in the '**Other Comments**' section at the end of the survey.

5. Please provide the contact information that customers should use to find the business:
   Website: _____
   Email: _____
   Phone: _____
   Facebook: _____
   Twitter: _____
   Instagram _____
   Pinterest: _____
   FourSquare: _____
   Other Social Media: _____

6. What methods do you use to market your business / products? (Select all that apply and rank all methods used from most used (starting at 1) to least used.)

	Marketing Strategy	**Rank (1 = Most Used)**
❑	Business website	
❑	Facebook	
❑	Twitter	
❑	Instagram	
❑	County Local Food Map	
❑	Chamber of Commerce	
❑	Business Improvement Area	
❑	Farmers' Markets	
❑	Print Advertising (Newspaper ads, pamphlets, posters)	
❑	Radio Advertising	
❑	Television Advertising	
❑	Deal Websites (e.g. Groupon)	
❑	Dedicated App	
❑	Road Signage / Farm Gate	
❑	Word of Mouth	
❑	Other: _____	

7. Which marketing method that your business uses is the most successful or effective?

_____

8. Why is this the most effective method? How do you know it is effective?

_____

_____

_____

_____

_____

_____

9. Please indicate which activities related to the food sector that your business is involved in:
   - ❑ Farming **(Proceed to Question 10)**
   - ❑ Restaurant **(Proceed to Question 17)**
   - ❑ Food Processing and Manufacturing **(Proceed to Question 18)**
   - ❑ Catering **(Proceed to Question 18)**
   - ❑ Prepared Food Retailing **(Proceed to Question 18)**
   - ❑ Raw Food Retailing **(Proceed to Question 18)**
   - ❑ Food Distribution **(Proceed to Question 18)**
   - ❑ Other: _____ **(Proceed to Question 18)**

Note: Questions 10 – 16 are for vendors who are involved in farming. Skip to Question 17 if not applicable.

10. Which farm organization(s) does your farm belong to?
    - ❑ Christian Farmers Federation of Ontario (CFFO)
    - ❑ National Farmers Union (NFU)
    - ❑ Ontario Federation of Agriculture (OFA)
    - ❑ Other(s): _____

11. Does someone in your family receive a wage or salary from another job or operate another business not involved with this agricultural operation?
    - ❍ Yes
    - ❍ No

12. What is the average time contribution to off-farm work?
- ❍ On average, more than 40 hours per week
- ❍ On average, 30 to 40 hours per week
- ❍ On average, 20 to 29 hours per week
- ❍ On average, fewer than 20 hours per week

13. What is your average time contribution to this farm business?
- ❍ On average, more than 40 hours per week
- ❍ On average, 30 to 40 hours per week
- ❍ On average, 20 to 29 hours per week
- ❍ On average, fewer than 20 hours per week

14. How often is a computer used for this farm business?
- ❍ Never
- ❍ Monthly
- ❍ Weekly
- ❍ Daily

15. Is the Internet used for this farm business (marketing, checking weather or prices, etc.)?
- ❍ Yes
- ❍ No

16. Does this operation have high-speed Internet access?
- ❍ Yes
- ❍ No

Note: Question 17 is for restaurants. Skip to Question 18 if not applicable.

17. What type of meals are provided by your restaurant:
- ☐ Breakfast
- ☐ Lunch
- ☐ Dinner
- ☐ Snacks
- ☐ Desserts

Note: Questions 18-30 apply to all businesses.

18. What types of products are sold by the business?

- ❑ Vegetables
- ❑ Herbs
- ❑ Spices
- ❑ Fruits
- ❑ Nuts
- ❑ Dairy and Alternatives
- ❑ Meat
- ❑ Poultry
- ❑ Eggs
- ❑ Seafood
- ❑ Grains
- ❑ Baked Goods
- ❑ Prepared Foods (For take home)
- ❑ Prepared Meals (For eat-in)
- ❑ Preserves
- ❑ Condiments
- ❑ Beverages

19. **Below please list the specific products sold by this business**.

Please list each product separated by a comma and be as specific as possible. This list will be used to promote your business and link it to recipes that use the products you sell.

A. Products produced by this business:

_____
_____
_____
_____
_____

B. Products produced by another business:

_____
_____
_____
_____
_____

20. Please list any suppliers that supply your business with food products (where possible please list supplier's name and location):

_____
_____
_____
_____
_____

21. Where are your products sold to consumers? (Select all that apply, where possible please specify venue name(s), and location(s))
    - ❑ Farm Gate: _____
    - ❑ Own Business' Retail Store: _____
    - ❑ Other Business' Retail Store: _____
    - ❑ Farmers' Markets: _____
    - ❑ Grocery Stores: _____
    - ❑ Specialty Food Stores: _____
    - ❑ Food Terminal / Food Hub: _____
    - ❑ U-Pick: _____
    - ❑ Community Supported Agriculture (CSA): _____
    - ❑ Cafes / Restaurants / Hotels: _____
    - ❑ Other Businesses (Processors, Retailers, etc.): _____
    - ❑ Other: _____

22. Are you an organic producer?
    - ❍ Yes, I am a certified organic producer.
    - ❍ Yes, I am transitioning to being a certified organic producer.
    - ❍ Yes, but I am not certified or becoming certified.
    - ❍ No.

23. Please indicate if the following specialty products are offered by the business:

	Yes, All.	Yes, Some.	No.	Not Applicable.
Organic products	❍	❍	❍	❍
GMO free products	❍	❍	❍	❍
Grass fed products	❍	❍	❍	❍
Free-range products	❍	❍	❍	❍
Gluten free products	❍	❍	❍	❍
Vegan products	❍	❍	❍	❍
Fair trade products	❍	❍	❍	❍
Halal products	❍	❍	❍	❍
Kosher products	❍	❍	❍	❍
Other: _____	❍	❍	❍	❍
Other: _____	❍	❍	❍	❍

Understanding More about Your Business:

When studying the effectiveness of marketing local food using a smartphone application, the following questions will enable us to understand more about your business. Your responses to the following questions will be kept confidential and anonymous. Only aggregate statistics will be used in any reports.

Please answer some descriptive questions about your business:

24. What age is the owner? (or average age) _____

25. How many years has the business been in operation? _____

26. How many people work at the business? _____

27. How many of these people are:
    - Full Time - Permanent _____
    - Full Time - Contract _____
    - Part Time - Permanent _____
    - Part Time - Contract _____
    - Seasonal or Temporary _____

28. What were your Annual Sales for the year 2013, broken down by the following categories? (Please give your best estimate):

_____ Raw Goods (meat, produce, flowers, animal products, etc.)

_____ Value Added Goods (baked goods, jams, prepared foods, etc.)

_____ Non Food Products

_____ Other Products and Services

_____ Total

29. What were the estimated total labour expenses (full time, part time, casual labour, bonuses, cash, and non-cash, etc.) related to your business in 2013?

_____

30. What are the business' plans or goals for growth in the future?

_____

_____

_____

_____

_____

❑ Please check this box if you do not want to receive further information about the progress of this project.

Please confirm the email and / or phone number at which the research team can reach you at:

Email: _____

Phone: _____

Thank you for completing the SmartAPPetite Food Provider Survey!

Other Comments:

_____

_____

_____

_____

_____

Curriculum Vitae

Name: Mark Duncan McGregor

Post-secondary Education and Degrees:

Queen's University
Kingston, Ontario, Canada
2006-2010 B.Sc.

University of Guelph
Guelph, Ontario, Canada
2010-2013 B.A.

The University of Western Ontario
London, Ontario, Canada
2013-2016 M.A.

Honours and Awards:

Ontario Graduate Scholarship
2013-2014

Canada Graduate Scholarship- Master's –
Social Science and Humanities Research Council (SSHRC)
2014-2015

E.G. Pleva Prize for Excellence as a Graduate Teaching Assistant in the Geography Department
2015

Related Work Experience:

Teaching Assistant
The University of Western Ontario
2013-2016

Research Associate
Human Environments Analysis Laboratory
The University of Western Ontario
2013-2016

Project Assistant – Summer Student
Tay Valley Township, Perth, Ontario
2013

Undergraduate Research Apprenticeship
School of Environmental Design & Rural Development
University of Guelph
2012

Presentations:

"Selling Local: Examining the marketing practices of direct-market farms"
Canadian Association of Food Studies Conference – Ottawa, Ontario
June 1, 2015